
CBF4LIFE
2009 5

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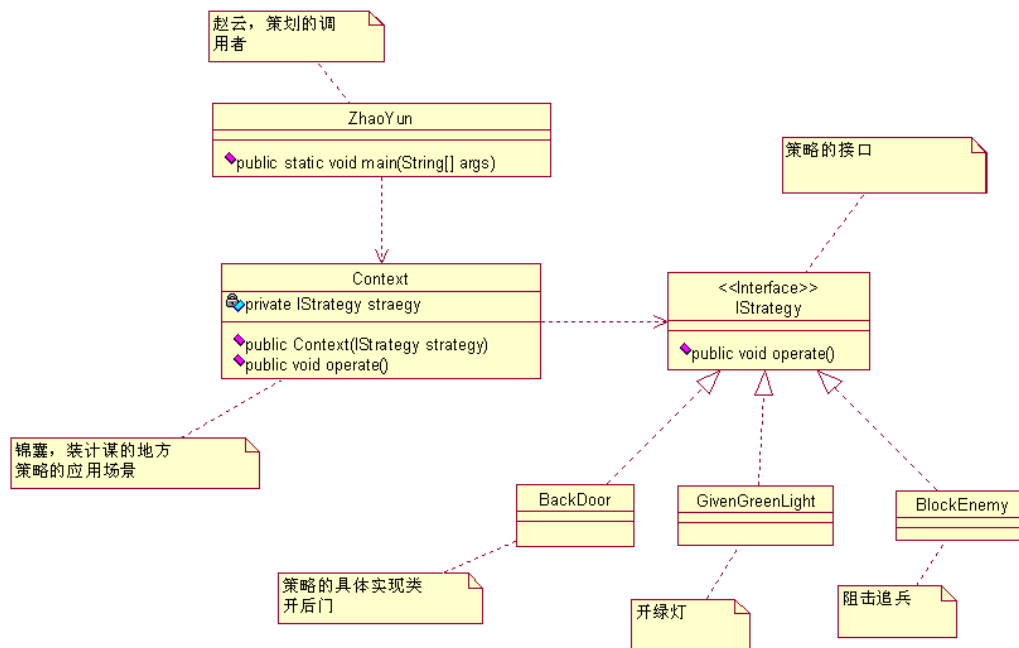
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1

Strategy Pattern

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```
package com.cbf4life.strategy;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 *
 */
public interface IStrategy {

    //
    public void operate();

}
```

```
package com.cbf4life.strategy;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class BackDoor implements IStrategy {

    public void operate() {
        System.out.println("BackDoor operate");
    }

}
```

```
package com.cbf4life.strategy;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class GivenGreenLight implements IStrategy {

    public void operate() {
        System.out.println("GivenGreenLight operate");
    }

}
```

```
package com.cbf4life.strategy;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class BlockEnemy implements IStrategy {

    public void operate() {
```

```
        System.out.println("                ");
    }

}
```

```
package com.cbf4life.strategy;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Context {
    //
    private IStrategy straegy;
    public Context(IStrategy strategy){
        this.straegy = strategy;
    }

    //
    public void operate(){
        this.straegy.operate();
    }
}
```

```
package com.cbf4life.strategy;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class ZhaoYun {

    /**
     *
     */
    public static void main(String[] args) {
        Context context;
```

```

//
System.out.println("-----");
context = new Context(new BackDoor()); //
context.operate(); //
System.out.println("\n\n\n\n\n\n\n\n");

//
System.out.println("-----");
context = new Context(new GivenGreenLight());
context.operate(); //
System.out.println("\n\n\n\n\n\n\n\n");

//
System.out.println("-----
-----");
context = new Context(new BlockEnemy());
context.operate(); //
System.out.println("\n\n\n\n\n\n\n\n");

/*
 *
 *      BackDoor
 *
 *      BackDoor GivenGreenLight BlockEnemy      first second
third      !
 *
 *
 */
}

}

```

```
package com.cbf4life.proxy;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public interface KindWomen {

    //
    public void makeEyesWithMan(); //

    public void happyWithMan(); //happy what? You know that!
}

```

```
package com.cbf4life.proxy;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class PanJinLian implements KindWomen {

    public void happyWithMan() {
        System.out.println(".....");
    }
}

```

```
        public void makeEyesWithMan() {
            System.out.println("                ");
        }
    }

package com.cbf4life.proxy;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 *
 */
public class WangPo implements KindWomen {
    private KindWomen kindWomen;

    public WangPo(){ //
        this.kindWomen = new PanJinLian();
    }

    // KindWomen
    public WangPo(KindWomen kindWomen){
        this.kindWomen = kindWomen;
    }

    public void happyWithMan() {
        this.kindWomen.happyWithMan(); //
    }

    public void makeEyesWithMan() {
        this.kindWomen.makeEyesWithMan(); //
    }
}
}
```

```
package com.cbf4life.proxy;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public class XiMenQing {

    /*
     *
     *
     *
     *
     */
    public static void main(String[] args) {
        //
        WangPo wangPo = new WangPo();

        //                happy
        wangPo.makeEyesWithMan(); //
        wangPo.happyWithMan();   }
    }
}
```

```
package com.cbf4life.proxy;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public class JiaShi implements KindWomen {

    public void happyWithMan() {
        System.out.println("    Happy    ");
    }
}
```

```
    }

    public void makeEyesWithMan() {
        System.out.println("        ");
    }
}

package com.cbf4life.proxy;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class XiMenQing {

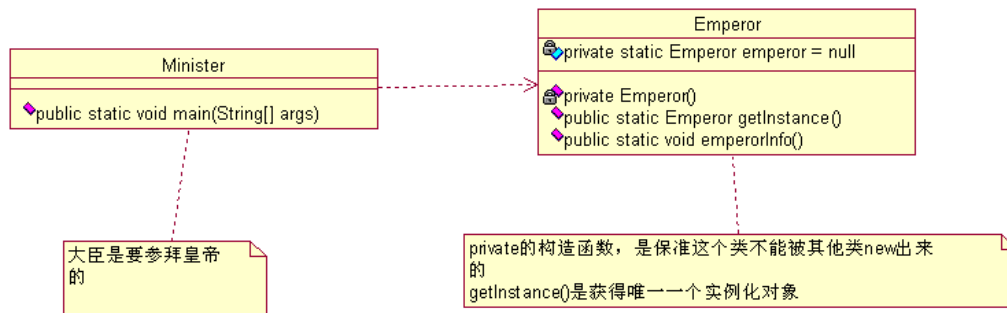
    public static void main(String[] args) {
        //
        JiaShi jiaShi = new JiaShi();
        WangPo wangPo = new WangPo(jiaShi); //

        wangPo.makeEyesWithMan();
        wangPo.happyWithMan();
    }
}
```

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3

Singleton Pattern



```
package com.cbf4life.singleton1;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 *
 */
public class Emperor {
    private static Emperor emperor = null; //

    private Emperor(){
        //
    }

    public static Emperor getInstance(){
```

```
        if(emperor == null){ //
            emperor = new Emperor();
        }
        return emperor;
    }

    //
    public static void emperorInfo(){
        System.out.println("        ....");
    }
}
```

```
package com.cbf4life.singleton1;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
@SuppressWarnings("all")
public class Minister {

    /**
     * @param args
     */
    public static void main(String[] args) {
        //
        Emperor emperor1=Emperor.getInstance();
        emperor1.emperorInfo(); //

        //
        Emperor emperor2=Emperor.getInstance();
        Emperor.emperorInfo();

        //
        Emperor emperor3=Emperor.getInstance();
        emperor2.emperorInfo();

        //
    }
}
```

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ž

```
package com.cbf4life.singleton3;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
@SuppressWarnings("all")
public class SingletonPattern {
    private static SingletonPattern singletonPattern= null;
    //
    private SingletonPattern(){

    }

    public SingletonPattern getInstance(){
        if(this.singletonPattern == null){ //
            this.singletonPattern = new SingletonPattern();
        }
        return this.singletonPattern;
    }
}
```

5 6 5 h\]g"gb[\`YhcbDUhhYfb`1`
bYk`G]b[\`YhcbDUhhYfbfIk \$\$\$% \$\$\$% 6
]Zfih\]g"gb[\`YhcbDUhhYfb`11`bi``t hfi Y ZU`gY hfi Y
6 G]b[\`YhcbDUhhYfb

```
package com.cbf4life.singleton3;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
@SuppressWarnings("all")
```

```
public class SingletonPattern {
```

```
    private static final SingletonPattern singletonPattern = new  
    SingletonPattern();
```

```
    //
```

```
    private SingletonPattern(){
```

```
    }
```

```
    public synchronized static SingletonPattern getInstance(){
```

```
        return singletonPattern;
```

```
    }
```

```
}
```

```
bYk
```

```
g] b[ `YhcbdUhhYfb
```

```
[Yh=bghUbWV
```

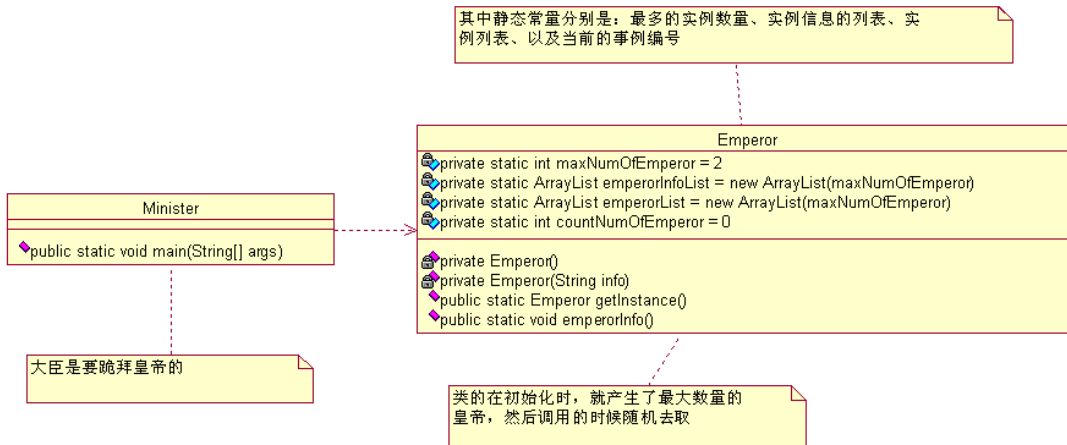
4

Multition Pattern

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```
package com.cbf4life.singleton2;
```

```
import java.util.ArrayList;
```

```
import java.util.Random;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 *
```

```
 *
```

```
 *
```

```
 *
```

```
 */
```

PK

```

@SuppressWarnings("all")
public class Emperor {
    private static int maxNumOfEmperor = 2; //
    private static ArrayList emperorInfoList=new ArrayList(maxNumOfEmperor); //

    private static ArrayList emperorList=new ArrayList(maxNumOfEmperor); //

    private static int countNumOfEmperor =0; //

    // 2
    static{
        //
        for(int i=0;i<maxNumOfEmperor;i++){
            emperorList.add(new Emperor(" "+(i+1)+" "));
        }
    }

    // (new
    private Emperor(){
        //
    }

    private Emperor(String info){
        emperorInfoList.add(info);
    }

    public static Emperor getInstance(){
        Random random = new Random();
        countNumOfEmperor = random.nextInt(maxNumOfEmperor); //

        return (Emperor)emperorList.get(countNumOfEmperor);
    }

    //
    public static void emperorInfo(){
        System.out.println(emperorInfoList.get(countNumOfEmperor));
    }
}
.

package com.cbf4life.singleton2;

```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 * TND
 */
@SuppressWarnings("all")
public class Minister {

    /**
     * @param args
     */
    public static void main(String[] args) {

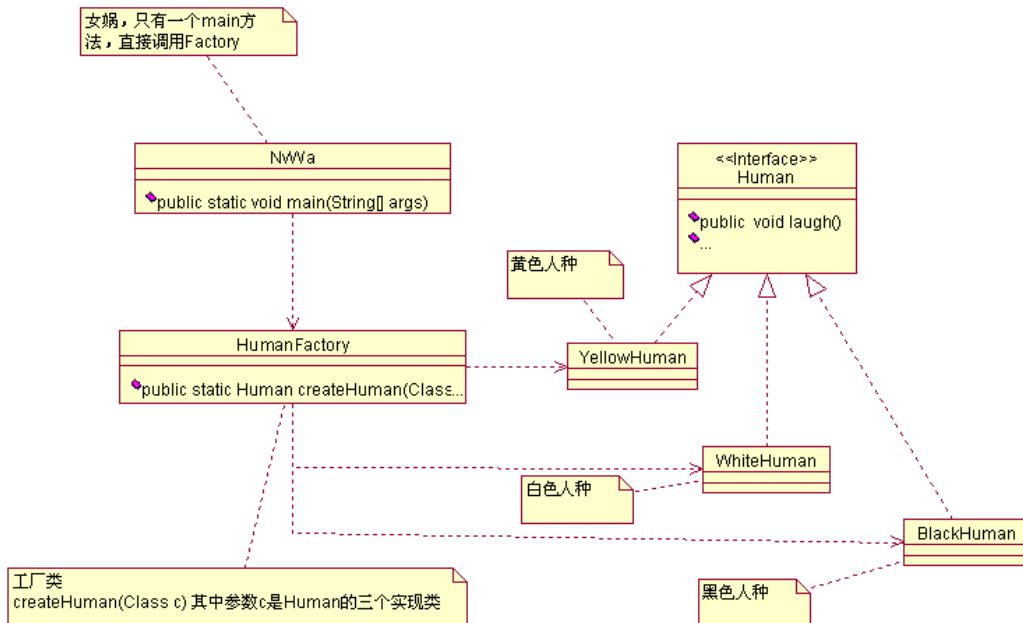
        int ministerNum =10; //10

        for(int i=0;i<ministerNum;i++){
            Emperor emperor = Emperor.getInstance();
            System.out.print("  "+(i+1)+"          ");
            emperor.emperorInfo();
        }
    }
}
```

Vji ~

DYfZYVh

.F6



```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public interface Human {
```

```
    //
```

```
    //                                smile                laugh
```

```
    public void laugh();
```

```
    //
```

```
    public void cry();
```

```
    //
```

```
    public void talk();
```

```
}
```

```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class YellowHuman implements Human {
```

```
    public void cry() {
```

```
        System.out.println("                ");
```

```
    }
```

```
    public void laugh() {
```

```
        System.out.println("                ");
```

```
    }
```

```
    public void talk() {
```

```
        System.out.println("                ");
```

```
    }  
}
```

```
package com.cbf4life;
```

```
/**  
 * @author cbf4Life cbf4life@126.com  
 * I'm glad to share my knowledge with you all.  
 *  
 */  
public class WhiteHuman implements Human {  
  
    public void cry() {  
        System.out.println("        ");  
    }  
  
    public void laugh() {  
        System.out.println("        ");  
    }  
  
    public void talk() {  
        System.out.println("        ");  
    }  
  
}
```

```
package com.cbf4life;
```

```
/**  
 * @author cbf4Life cbf4life@126.com  
 * I'm glad to share my knowledge with you all.  
 *  
 *                black man  
 */  
public class BlackHuman implements Human {  
  
    public void cry() {  
        System.out.println("        ");  
    }  
  
}
```

```
    }

    public void laugh() {
        System.out.println("      ");
    }

    public void talk() {
        System.out.println("      ");
    }
}
```

```
package com.cbf4life;
```

```
import java.util.List;
```

```
import java.util.Random;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 *
```

```
 * One day
```

```
 *
```

```
 *              Java
```

```
 */
```

```
public class HumanFactory {
```

```
    //
```

```
    public static Human createHuman(Class c){
```

```
        Human human=null; //
```

```
        try {
```

```
            human = (Human)Class.forName(c.getName()).newInstance(); //
```

```
        } catch (InstantiationException e) {//
```

```
            System.out.println("      ");
```

```
        } catch (IllegalAccessException e) { //
```

```
        ...
```

```

        System.out.println("                ");
    } catch (ClassNotFoundException e) { //

        System.out.println("                ");
    }
    return human;
}
}

```

```

package com.cbf4life;

```

```

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class NvWa {

    public static void main(String[] args) {

        //
        System.out.println("-----
        -----");
        Human whiteHuman = HumanFactory.createHuman(WhiteHuman.class);
        whiteHuman.cry();
        whiteHuman.laugh();
        whiteHuman.talk();

        //
        System.out.println("\n\n-----
        -----");
        Human blackHuman = HumanFactory.createHuman(BlackHuman.class);
        blackHuman.cry();
        blackHuman.laugh();
        blackHuman.talk();

        //
        System.out.println("\n\n-----
        -----");
    }
}

```

RB

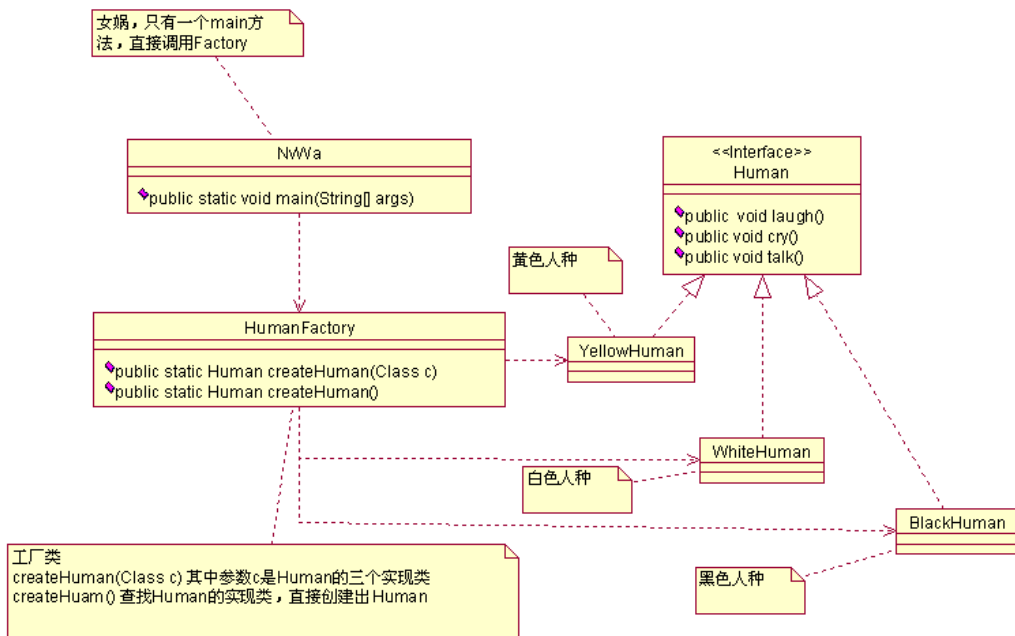
```

Human yellowHuman = HumanFactory.createHuman(YellowHuman.class);
yellowHuman.cry();
yellowHuman.laugh();
yellowHuman.talk()

}

}

```



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```

package com.cbf4life;

import java.util.List;
import java.util.Random;
public class HumanFactory {

//
public static Human createHuman(Class c){
    Human human=null; //

```

```

    try {
        human = (Human)Class.forName(c.getName()).newInstance(); //

    } catch (InstantiationException e) {

        System.out.println(" ");
    } catch (IllegalAccessException e) { // ...

        System.out.println(" ");
    } catch (ClassNotFoundException e) { //

        System.out.println(" ");
    }
    return human;
}

//
public static Human createHuman(){
    Human human=null; //

    //
    List<Class> concreteHumanList =
ClassUtils.getAllClassByInterface(Human.class); //
    //
    Random random = new Random();
    int rand = random.nextInt(concreteHumanList.size());

    human = createHuman(concreteHumanList.get(rand));

    return human;
}
}

package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */

```

```

public class NvWa {

    public static void main(String[] args) {

        //
        System.out.println("-----
-----");
        Human whiteHuman = HumanFactory.createHuman(WhiteHuman.class);
        whiteHuman.cry();
        whiteHuman.laugh();
        whiteHuman.talk();

        //
        System.out.println("\n\n-----
-----");
        Human blackHuman = HumanFactory.createHuman(BlackHuman.class);
        blackHuman.cry();
        blackHuman.laugh();
        blackHuman.talk();

        //
        System.out.println("\n\n-----
-----");
        Human yellowHuman = HumanFactory.createHuman(YellowHuman.class);
        yellowHuman.cry();
        yellowHuman.laugh();
        yellowHuman.talk();

        //
        for(int i=0;i<10000000000;i++){
            System.out.println("\n\n-----
-----" +
i);
            Human human = HumanFactory.createHuman();
            human.cry();
            human.laugh();
            human.talk();
        }
    }
}

```

RB

```
package com.cbf4life;

import java.io.File;
import java.io.IOException;
import java.net.URL;
import java.util.ArrayList;
import java.util.Enumeration;
import java.util.List;

/**
 * @author cbf4Life cbf4life@126.com I'm glad to share my knowledge with you
 * all.
 *
 */
@SuppressWarnings("all")
public class ClassUtils {

    //
    public static List<Class> getAllClassByInterface(Class c){
        List<Class> returnClassList = new ArrayList<Class>(); //

        //
        if(c.isInterface()){
            String packageName = c.getPackage().getName(); //
            try {
                List<Class> allClass = getClasses(packageName); //

                //
                for(int i=0;i<allClass.size();i++){
                    if(c.isAssignableFrom(allClass.get(i))){ //
                        if(!c.equals(allClass.get(i))){ //
                            returnClassList.add(allClass.get(i));
                        }
                    }
                }
            } catch (ClassNotFoundException e) {
                e.printStackTrace();
            } catch (IOException e) {
                e.printStackTrace();
            }
        }
    }
}
```

```

    }

    return returnClassList;
}

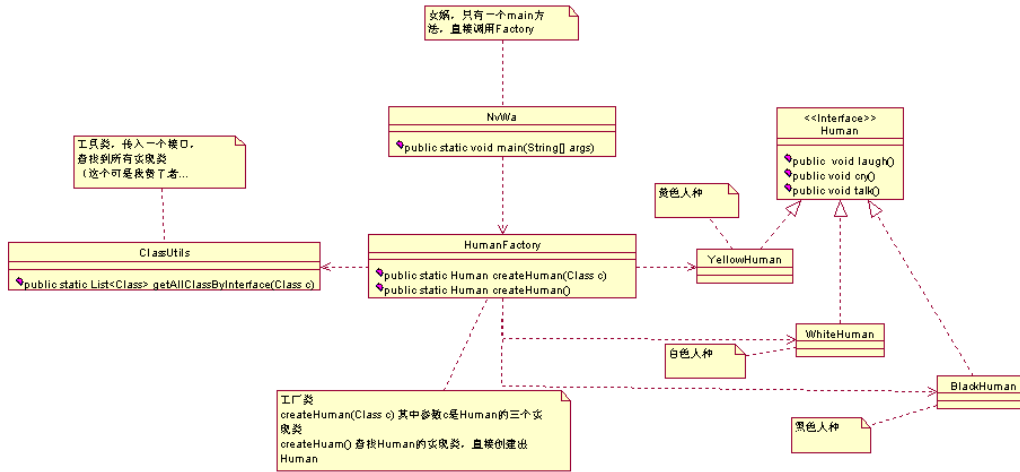
//                                jar
private static List<Class> getClasses(String packageName)
    throws ClassNotFoundException, IOException {
    ClassLoader classLoader = Thread.currentThread()
        .getContextClassLoader();
    String path = packageName.replace('.', '/');
    Enumeration<URL> resources = classLoader.getResources(path);
    List<File> dirs = new ArrayList<File>();
    while (resources.hasMoreElements()) {
        URL resource = resources.nextElement();
        dirs.add(new File(resource.getFile()));
    }
    ArrayList<Class> classes = new ArrayList<Class>();
    for (File directory : dirs) {
        classes.addAll(findClasses(directory, packageName));
    }
    return classes;
}

private static List<Class> findClasses(File directory, String packageName)
throws ClassNotFoundException {
    List<Class> classes = new ArrayList<Class>();
    if (!directory.exists()) {
        return classes;
    }
    File[] files = directory.listFiles();
    for (File file : files) {
        if (file.isDirectory()) {
            assert !file.getName().contains(".");
            classes.addAll(findClasses(file, packageName + "." +
file.getName()));
        } else if (file.getName().endsWith(".class")) {
            classes.add(Class.forName(packageName + '.' +
file.getName().substring(0, file.getName().length() - 6)));
        }
    }
    return classes;
}

```

}

7 Ugg] h] `g



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f@hm]b]h]U]nUh]cbk

```
package com.cbf4life.advance;
```

```
import java.util.HashMap;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 */
```

```
@SuppressWarnings("all")
```

```
public class HumanFactory {
```

```
    //      MAP,      Human
```

```

private static HashMap<String,Human> humans = new HashMap<String,Human>();

//
public static Human createHuman(Class c){
    Human human=null; //

    try {
        // MAP
        if(humans.containsKey(c.getSimpleName())){
            human = humans.get(c.getSimpleName());
        }else{
            human = (Human)Class.forName(c.getName()).newInstance();
            // MAP
            humans.put(c.getSimpleName(), human);
        }
    } catch (InstantiationException e) { //

        System.out.println(" ");
    } catch (IllegalAccessException e) { //
...

        System.out.println(" ");
    } catch (ClassNotFoundException e) { //

        System.out.println(" ");
    }
    return human;
}
}

```

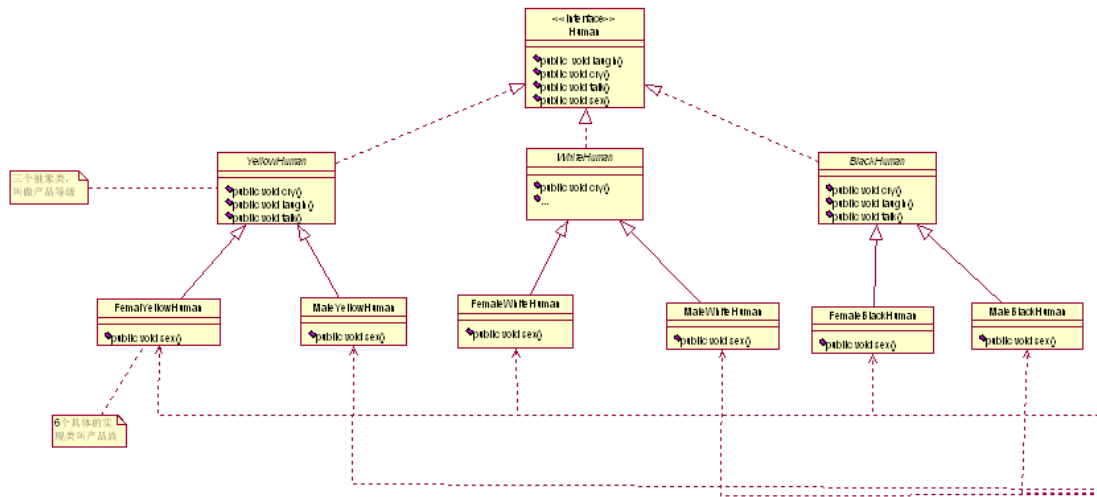
6

Abstract Factory Pattern

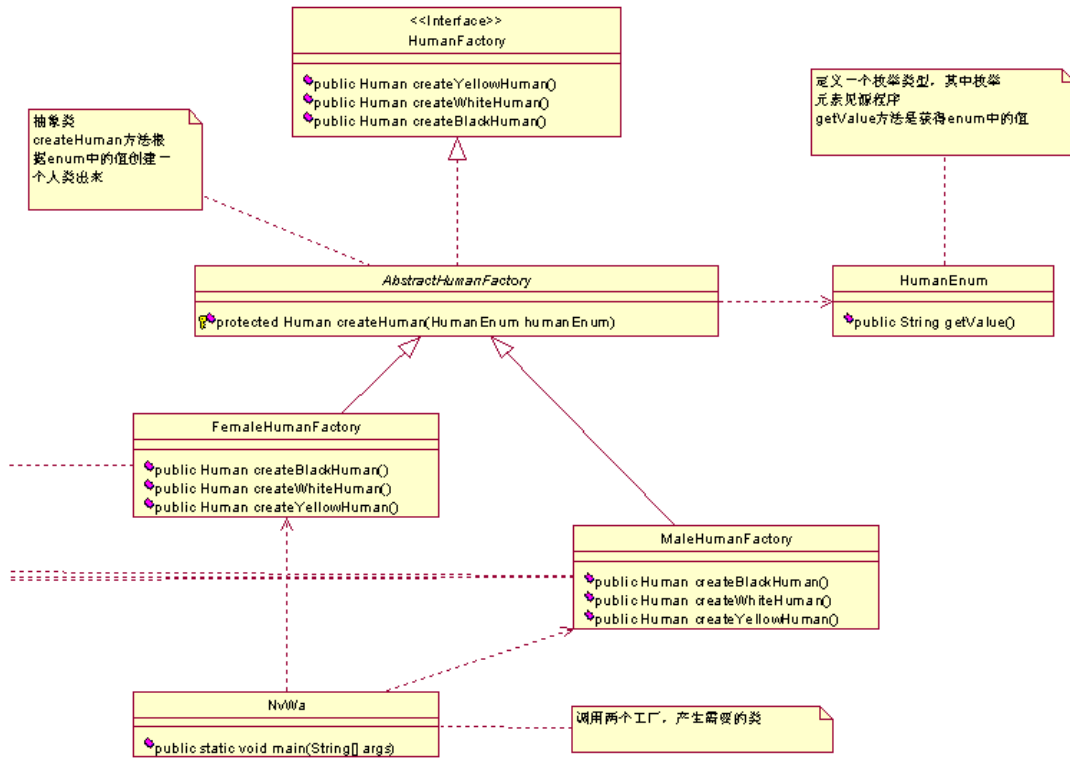
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7cbWYhY: UWcf m



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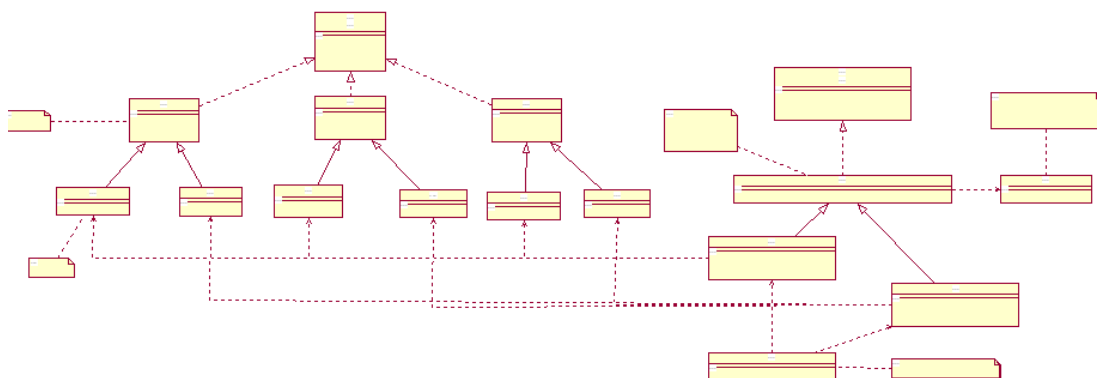
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VUJ Xi



```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 *
```

```
 */
```

```
public interface Human {
```

```
    //
```

```
    //                smile                laugh  
    public void laugh();
```

```
    //
```

```
    public void cry();
```

```
    //
```

```
    public void talk();
```

```
    //
```

```
    public void sex();
```

```
}
```

```
`U [\file Wmfile hU_file
```

```
5VghfUWwMf`ck<i aUb
```

```
package com.cbf4life.yellowHuman;
```

```
import com.cbf4life.Human;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 *
```

```
 *
```

```
 *
```

```
 *
```

```
public cbf4Life
```

```

    public void laugh() {
        System.out.println(" ");
    }

    public void talk() {
        System.out.println(" ");
    }
}

```

5VghfUW\K\]hY<i aUb 5VghfUW[6' UW<i aUb

9W]dgY

```

package com.cbf4life.whiteHuman;

import com.cbf4life.Human;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 *
 */
public abstract class AbstractWhiteHuman implements Human {

    public void cry() {
        System.out.println(" ");
    }

    public void laugh() {
        System.out.println(" ");
    }
}

```

```
    public void talk() {
        System.out.println(" ");
    }
}
```

```
package com.cbf4life.blackHuman;
```

```
import com.cbf4life.Human;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *                black man
```

```
 */
```

```
public abstract class AbstractBlackHuman implements Human {
```

```
    public void cry() {
        System.out.println(" ");
    }
```

```
    public void laugh() {
        System.out.println(" ");
    }
```

```
    public void talk() {
        System.out.println(" ");
    }
}
```

```
bYk
```

```
>Uj U
```

```
>Uj U
```

```
package com.cbf4life.yellowHuman;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class YellowFemaleHuman extends AbstractYellowHuman {

    public void sex() {
        System.out.println("          ...");
    }

}
```

```
package com.cbf4life.yellowHuman;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class YellowMaleHuman extends AbstractYellowHuman {

    public void sex() {
        System.out.println("          ....");
    }

}
```

```
package com.cbf4life.whiteHuman;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.\
 *
 */
public class WhiteFemaleHuman extends AbstractWhiteHuman {

    public void sex() {
```

```
        System.out.println("                ....");
    }
}

package com.cbf4life.whiteHuman;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class WhiteMaleHuman extends AbstractWhiteHuman {

    public void sex() {
        System.out.println("                ....");
    }
}

package com.cbf4life.blackHuman;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class BlackFemaleHuman extends AbstractBlackHuman {

    public void sex() {
        System.out.println("                ...");
    }
}
```

```
package com.cbf4life.blackHuman;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class BlackMaleHuman extends AbstractBlackHuman {

    public void sex() {
        System.out.println("                ...");
    }

}
```

```
package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 * JDK 1.5      enum      C
 */
public enum HumanEnum {

    //
    YelloMaleHuman("com.cbf4life.yellowHuman.YellowMaleHuman"),

    YelloFemaleHuman("com.cbf4life.yellowHuman.YellowFemaleHuman"),

    WhiteFemaleHuman("com.cbf4life.whiteHuman.WhiteFemaleHuman"),

    WhiteMaleHuman("com.cbf4life.whiteHuman.WhiteMaleHuman"),

    BlackFemaleHuman("com.cbf4life.blackHuman.BlackFemaleHuman"),

    BlackMaleHuman("com.cbf4life.blackHuman.BlackMaleHuman");

}
```

```
private String value = "";
//          Data(value)
private HumanEnum(String value){
    this.value = value;
}

public String getValue(){
    return this.value;
}

/*
 * java enum
 *      Clas      enum
 */
}
```

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[YhJU i YfIk

<Ug\AUd

```
package com.cbf4life;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 *
 */
```

```

*/
public interface HumanFactory {

    //
    public Human createYellowHuman();

    //
    public Human createWhiteHuman();

    //
    public Human createBlackHuman();
}

package com.cbf4life.humanFactory;

import com.cbf4life.Human;
import com.cbf4life.HumanEnum;
import com.cbf4life.HumanFactory;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 *      enum
 */
public abstract class AbstractHumanFactory implements HumanFactory {

    /*
     *
     */
    protected Human createHuman(HumanEnum humanEnum) {
        Human human = null;

        //      Enum      Element
        if (!humanEnum.getValue().equals("")) {
            try {
                //
                human = (Human)
Class.forName(humanEnum.getValue()).newInstance();
            } catch (Exception e) {
                //      enum
                e.printStackTrace();
            }
        }
    }
}

```

```
    }
    return human;
}

}
```

```
Ybi a      WYUHY<i aUbfki aUb9bi a` \i aUb9bi aŁ
<i aUb9bi a      \i aUb9bi a" [YhJU i YfİŁ
```

```
package com.cbf4life.humanFactory;

import com.cbf4life.Human;
import com.cbf4life.HumanEnum;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class MaleHumanFactory extends AbstractHumanFactory {

    //
    public Human createBlackHuman() {
        return super.createHuman(HumanEnum.BlackMaleHuman);
    }

    //
    public Human createWhiteHuman() {
        return super.createHuman(HumanEnum.WhiteMaleHuman);
    }

    //
    public Human createYellowHuman() {
        return super.createHuman(HumanEnum.YelloMaleHuman);
    }

}
```

```
package com.cbf4life.humanFactory;

import com.cbf4life.Human;
import com.cbf4life.HumanEnum;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.\
 *
 */
public class FemaleHumanFactory extends AbstractHumanFactory {

    //
    public Human createBlackHuman() {
        return super.createHuman(HumanEnum.BlackFemaleHuman);
    }

    //
    public Human createWhiteHuman() {
        return super.createHuman(HumanEnum.WhiteFemaleHuman);
    }

    //
    public Human createYellowHuman() {
        return super.createHuman(HumanEnum.YelloFemaleHuman);
    }

}
```

```
package com.cbf4life;

import com.cbf4life.humanFactory.FemaleHumanFactory;
import com.cbf4life.humanFactory.MaleHumanFactory;

/**
 * @author cbf4Life cbf4life@126.com
```

```

public class NvWa {

    public static void main(String[] args) {

        //
        HumanFactory maleHumanFactory = new MaleHumanFactory();

        //
        HumanFactory femaleHumanFactory = new FemaleHumanFactory();

        //
        Human maleYellowHuman = maleHumanFactory.createYellowHuman();

        Human femaleYellowHuman = femaleHumanFactory.createYellowHuman();

        maleYellowHuman.cry();
        maleYellowHuman.laugh();
        femaleYellowHuman.sex();
        /*
         * .....
         *
         */
    }
}

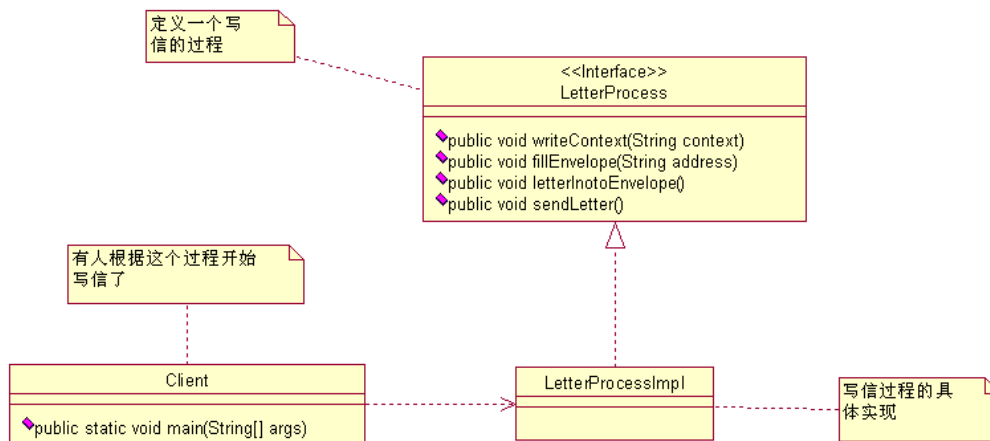
```

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Df cXi Vh' =bhYf ZUW 7cbW YhY': UWhcfm

>Uj U

%



```
package com.cbf4life.facade;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public interface LetterProcess {
```

```
//
public void writeContext(String context);

//
public void fillEnvelope(String address);

//
public void letterInotoEnvelope();

//
public void sendLetter();
}

package com.cbf4life.facade;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class LetterProcessImpl implements LetterProcess {

    //
    public void writeContext(String context) {
        System.out.println("    ...." + context);
    }

    //
    public void fillEnvelope(String address) {
        System.out.println("    ...." + address);
    }

    //
    public void letterInotoEnvelope() {
        System.out.println("    ....");
    }

    //
    public void sendLetter() {
        System.out.println("    ...");
    }
}
```

```
}
```

```
package com.cbf4life.facade;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class Client {
```

```
    public static void main(String[] args) {
```

```
        //
```

```
        LetterProcess letterProcess = new LetterProcessImpl();
```

```
        //
```

```
        letterProcess.writeContext("Hello,It's me,do you know who I am? I'm your  
old lover. I'd like to....");
```

```
        //
```

```
        letterProcess.fillEnvelope("Happy Road No. 666,God Province,Heaven");
```

```
        //
```

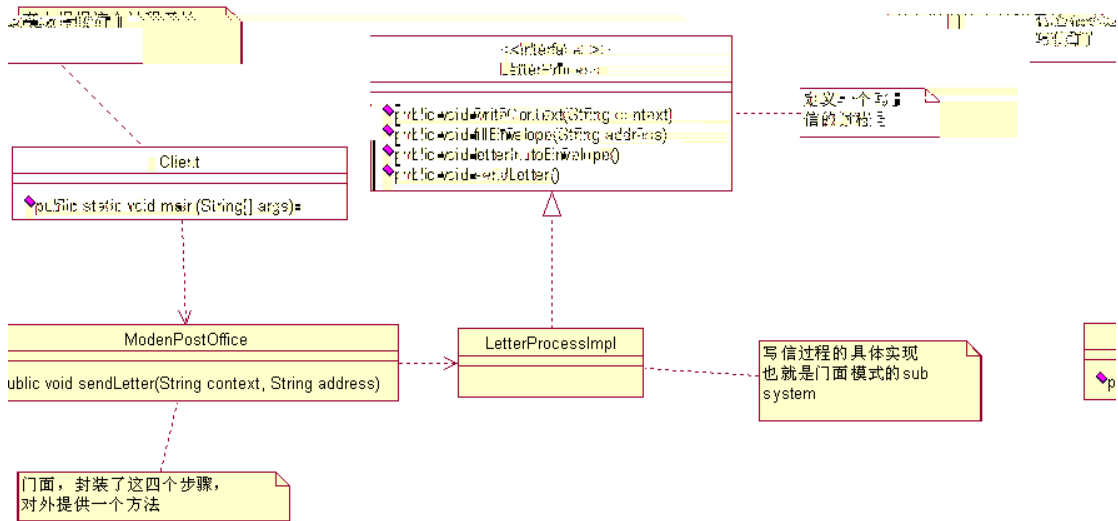
```
        letterProcess.letterInotoEnvelope();
```

```
        //
```

```
        letterProcess.sendLetter();
```

```
    }
```

```
}
```



G V'GngghYa

G V'GngghYa

7]Ybh

@YhhYf Df cWgg

AcXYbDcghCZZ] W

^Uj U

```

package com.cbf4life.facade;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public class ModenPostOffice {
    private LetterProcess letterProcess = new LetterProcessImpl();

    //
    public void sendLetter(String context,String address){

        //
        letterProcess.writeContext(context);

        //
        letterProcess.fillEnvelope(address);

        //
        letterProcess.letterInotoEnvelope();

        //
    }
}
  
```

```
        letterProcess.sendLetter();
    }
}
```

<Y` `` FcUX` DcghCZZ] W

7]Ybh" ^Uj U

```
package com.cbf4life.facade;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class Client {
```

```
    public static void main(String[] args) {
```

```
        //                      Hell Road
```

```
        ModenPostOffice hellRoadPostOffice = new ModenPostOffice();
```

```
        //
```

```
        String address = "Happy Road No. 666,God Province,Heaven"; //
```

```
        String context = "Hello,It's me,do you know who I am? I'm your old lover.
```

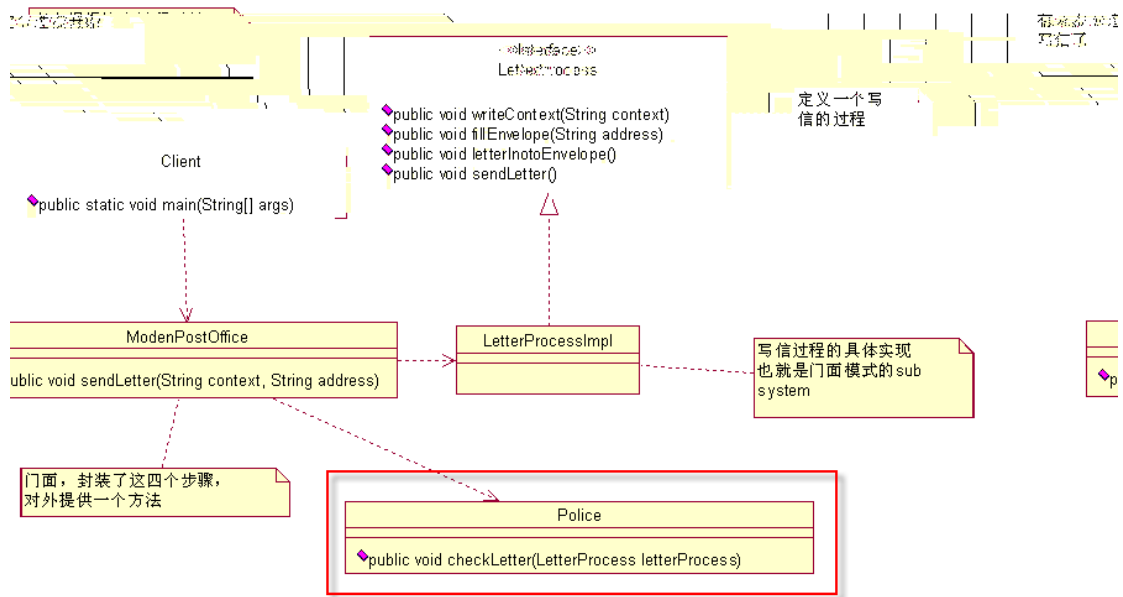
```
I'd like to....";
```

```
        hellRoadPostOffice.sendLetter(context, address);
```

```
    }
```

```
}
```

```
; cX` Dfcj ]bW
```

```
package com.cbf4life.facade;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public class ModenPostOffice {
    private LetterProcess letterProcess = new LetterProcessImpl();
    private Police letterPolice = new Police();

    //
    public void sendLetter(String context, String address) {

        //
        letterProcess.writeContext(context);

        //
        letterProcess.fillEnvelope(address);

        //
        letterPolice.checkLetter(letterProcess);

        //
        letterProcess.letterInotoEnvelope();

        //
    }
}
```

```
letterProcess.sendLetter();
```

```
    }  
}
```

```
`YhhYfDc` ]W
```

```
Gi V' GmghYa
```

```
df ]j UhY
```

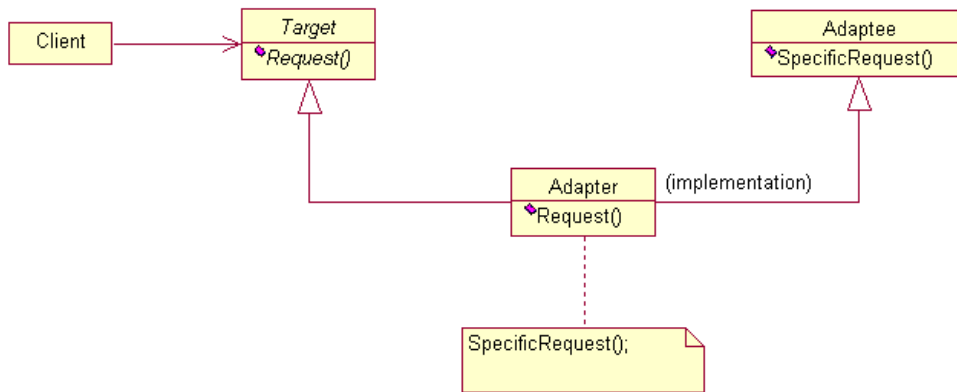
```
di V ]W
```

```
di V ]W
```

8

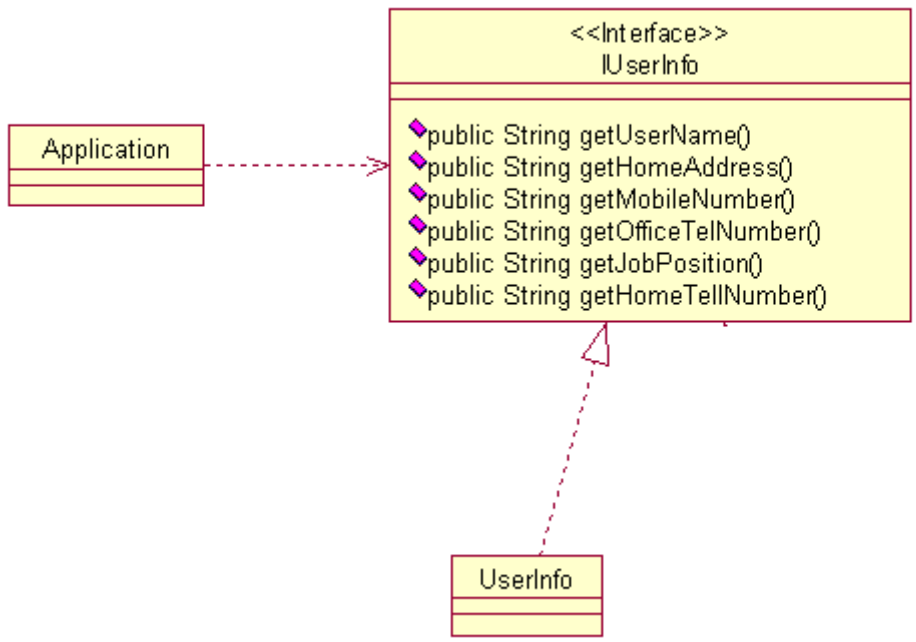
Adapter Pattern

5 6



HUf [Yh 5XUdhYY FUh] cbU FcgY 5XUdhYf 5XUdhYY HUf [Yh KfUddYf fIKfUddYfL

&\$\$(
+\$\$



I gYf =bZc

6C 6i g] bYgg' CV^YVh

H] b' 6i g] bYgg' CV^YVh

F] W' 6i g] bYgg' CV^YVh

I gYf =bZc

gYhhYf

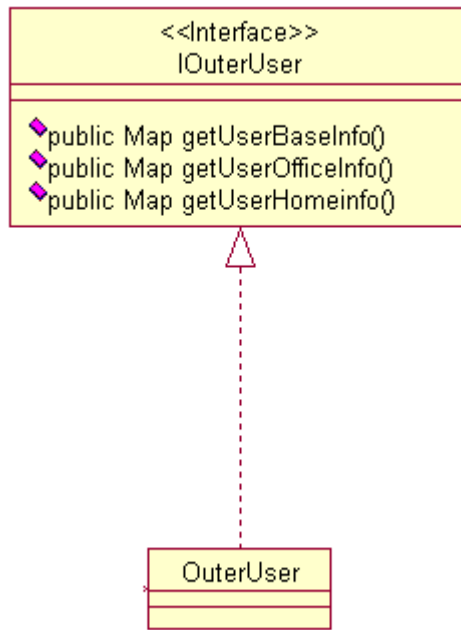
\$(

)

)

&\$\$

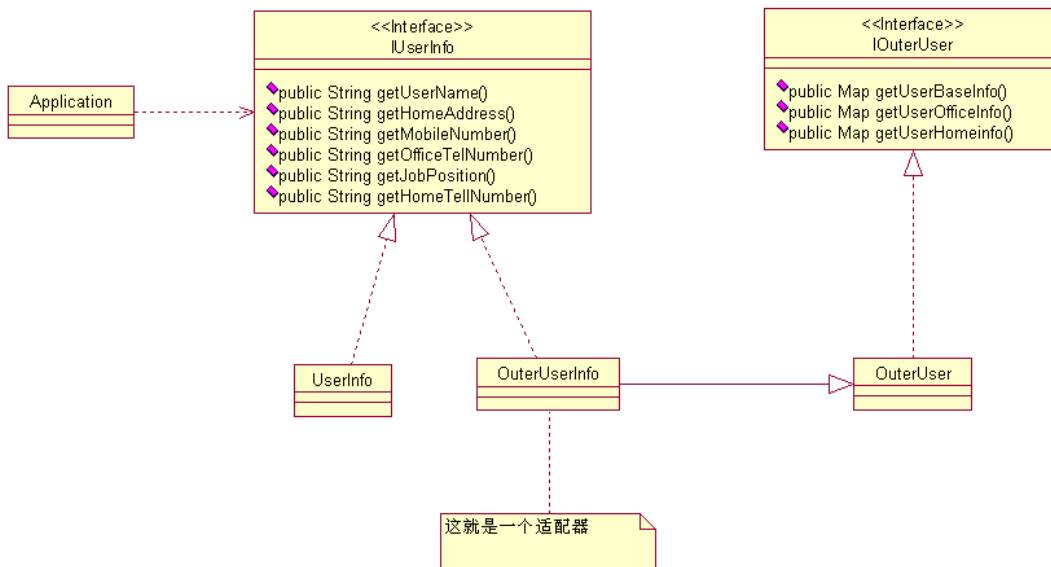
FA= FYachY' AYh\cX' =bj cW]h] cb



<Ug\AUd

6UgY=bZc

<caY=bZc



=l gYf =bZc" ^Uj U

```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public interface IUserInfo {
```

```
    //
```

```
    public String getUsername();
```

```
    //
```

```
    public String getHomeAddress();
```

```
    //
```

```
    public String getMobileNumber();
```

```
    //
```

```
    public String getOfficeTelNumber();
```

```
    //
```

```
    public String getJobPosition();
```

```
    //
```

```
    public String getHomeTelNumber();
```

```
}
```

```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 */
```

```
public class UserInfo implements IUserInfo {
```

```
    /*
```

```
     *
```

```
    */
    public String getHomeAddress() {
        System.out.println("                ....");
        return null;
    }

    /*
    *
    */
    public String getHomeTelNumber() {
        System.out.println("                ....");
        return null;
    }

    /*
    *
    */
    public String getJobPosition() {
        System.out.println("                BOSS....");
        return null;
    }

    /*
    *
    */
    public String getMobileNumber() {
        System.out.println("                0000....");
        return null;
    }

    /*
    *
    */
    public String getOfficeTelNumber() {
        System.out.println("                ....");
        return null;
    }

    /*
    *
    */
    public String getUsername() {
        System.out.println("                ...");
        return null;
    }
}
```

```

    }

}

        Ghf]b[          ]bh
        Ghf]b[          j UfVXUf
        $&$$$$$%          $$, *
        $$, *
        I gYf=bZc

package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *                               20-30
 */
public class App {

    public static void main(String[] args) {
        //
        IUserInfo youngGirl = new UserInfo();
        //          101
        for(int i=0;i<101;i++){
            youngGirl.getMobileNumber();
        }

    }

}

        %%          %%          %%
        %% I gYf=bZc
        =C hYfI gYf" ^Uj U

package com.cbf4life;

import java.util.Map;

```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
@SuppressWarnings("all")
public interface IOuterUser {

    //
    public Map getUserBaseInfo();

    //
    public Map getUserOfficeInfo();

    //
    public Map getUserHomeInfo();

}

package com.cbf4life;

import java.util.HashMap;
import java.util.Map;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
@SuppressWarnings("all")
public class OuterUser implements IOuterUser {

    /*
     *
     */
    public Map getUserBaseInfo() {
        HashMap baseInfoMap = new HashMap();

        baseInfoMap.put("userName", ".....");
        baseInfoMap.put("mobileNumber", ".....");
    }
}
```

```

        return baseInfoMap;
    }

    /**
     *
     */
    public Map getUserHomeInfo() {
        HashMap homeInfo = new HashMap();

        homeInfo.put("homeTelNumbner", "          ....");
        homeInfo.put("homeAddress", "          ....");

        return homeInfo;
    }

    /**
     *
     */
    public Map getUserOfficeInfo() {
        HashMap officeInfo = new HashMap();

        officeInfo.put("jobPosition", "          BOSS...");
        officeInfo.put("officeTelNumber", "          ....");

        return officeInfo;
    }
}

```

Çi hYfI gYf =bZc

```

package com.cbf4life;

import java.util.Map;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 * OuterUser      UserInfo
 */

```

```
@SuppressWarnings("all")
public class OuterUserInfo extends OuterUser implements IUserInfo {

    private Map baseInfo = super.getUserBaseInfo(); //
    private Map homeInfo = super.getUserHomeInfo(); //
    private Map officeInfo = super.getUserOfficeInfo(); //

    /*
     *
     */
    public String getHomeAddress() {
        String homeAddress = (String)this.homeInfo.get("homeAddress");
        System.out.println(homeAddress);
        return homeAddress;
    }

    /*
     *
     */
    public String getHomeTelNumber() {
        String homeTelNumber = (String)this.homeInfo.get("homeTelNumber");
        System.out.println(homeTelNumber);
        return homeTelNumber;
    }

    /*
     *
     */
    public String getJobPosition() {
        String jobPosition = (String)this.officeInfo.get("jobPosition");
        System.out.println(jobPosition);
        return jobPosition;
    }

    /*
     *
     */
    public String getMobileNumber() {
        String mobileNumber = (String)this.baseInfo.get("mobileNumber");
        System.out.println(mobileNumber);
        return mobileNumber;
    }

    /*
```

```
    *
    */
    public String getOfficeTelNumber() {
        String officeTelNumber = (String) this.officeInfo.get("officeTelNumber");
        System.out.println(officeTelNumber);
        return officeTelNumber;
    }

    /*
    *
    */
    public String getUsername() {
        String userName = (String) this.baseInfo.get("userName");
        System.out.println(userName);
        return userName;
    }
}
```

f[Ghf]b[Ł

```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *                                     20-30
```

```
 */
```

```
public class App {
```

```
    public static void main(String[] args) {
```

```
        //
```

```
        //IUserInfo youngGirl = new UserInfo();
```

```
        //
```

```
        IUserInfo youngGirl = new OuterUserInfo(); //
```

```
        //          101
```

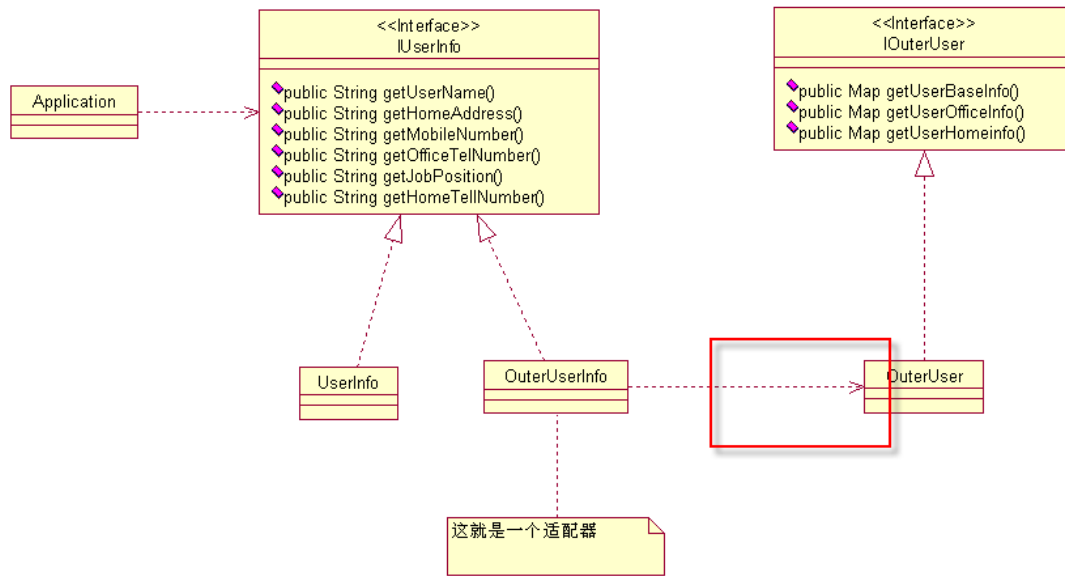
```
        for(int i=0;i<101;i++){
```

```
            youngGirl.getMobileNumber();
```

```
        }
```

```
    }
```

```
}
```



&

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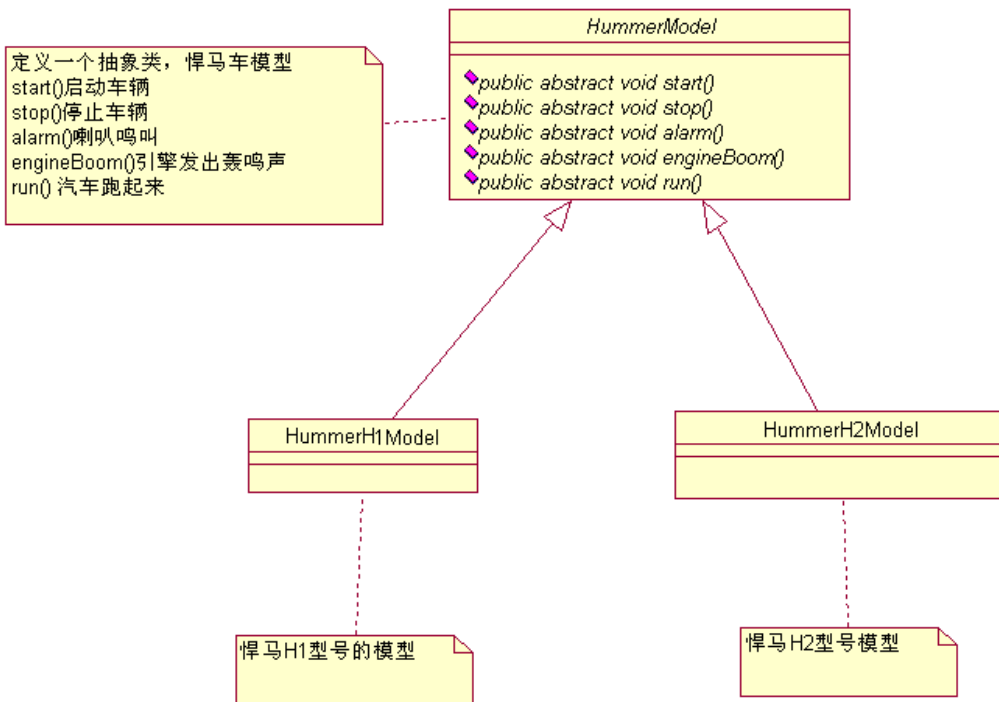
Template Method Pattern

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...

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```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 * Hummer Model
```

```
 */
```

```
public abstract class HummerModel {
```

```
    /**
```

```
     *
```

```
     *
```

```
     */
```

```
    public abstract void start();
```

```
    //
```

```
    public abstract void stop();
```

```
//
public abstract void alarm();

//
public abstract void engineBoom();

//
public abstract void run();
}

<%
.

package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *           H1
 */
public class HummerH1Model extends HummerModel {

    @Override
    public void alarm() {
        System.out.println("    H1    ...");
    }

    @Override
    public void engineBoom() {
        System.out.println("    H1           ...");
    }

    @Override
    public void start() {
        System.out.println("    H1    ...");
    }

    @Override
    public void stop() {
        System.out.println("    H1    ...");
    }

    /*
```

```

    *
    */
@Override
public void run() {

    //
    this.start();

    //
    this.engineBoom();

    //
    this.alarm();

    //
    this.stop();
}
}
.
.
    <&
.

package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 * H1 H2
 */
public class HummerH2Model extends HummerModel {

    @Override
    public void alarm() {
        System.out.println("    H2    ...");
    }

    @Override
    public void engineBoom() {
        System.out.println("    H2                ...");
    }

    @Override
    public void start() {
```

```
        System.out.println("    H2    ...");
    }

    @Override
    public void stop() {
        System.out.println("    H1    ...");
    }

    /*
     * H2
     */
    @Override
    public void run() {

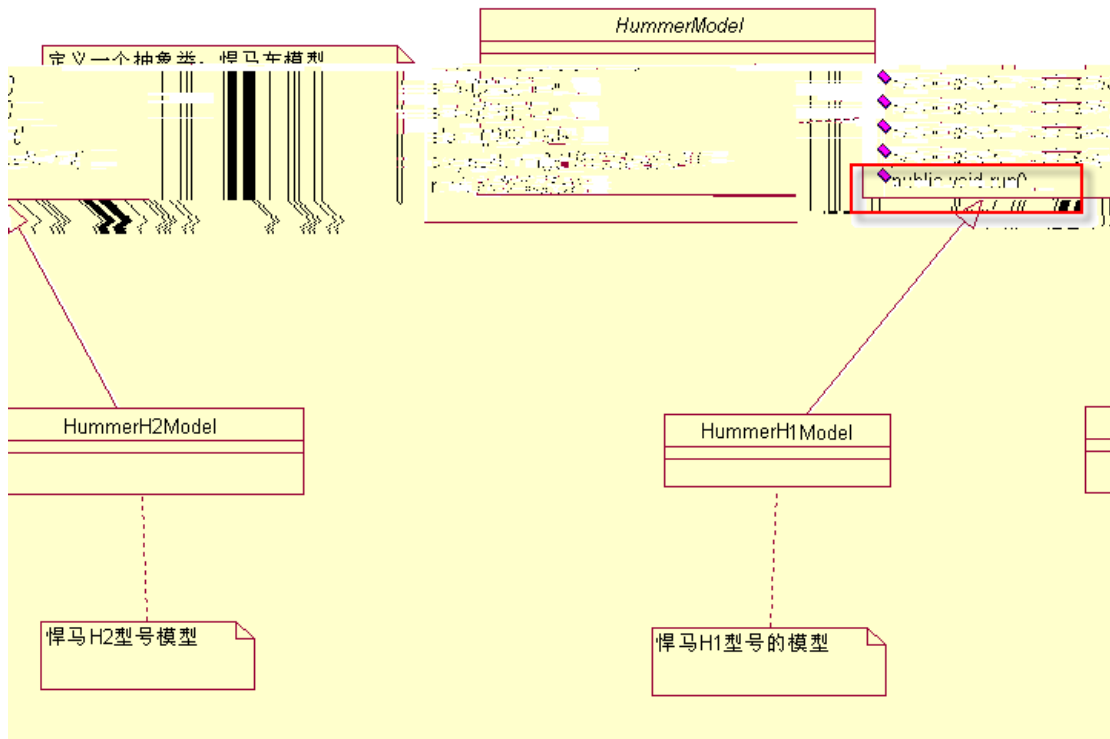
        //
        this.start();

        //
        this.engineBoom();

        //
        this.alarm();

        //
        this.stop();
    }
}
.
```

fi b



fi b

<i aaYfAcXY " ^Uj U.

```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 * Hummer Model
```

```
 */
```

```
public abstract class HummerModel {
```

```
    /*
```

```
     *
```

```
     *
```

```
    */
```

```
    public abstract void start();
```

```
    //
```

```
    public abstract void stop();
```

```
    //
```

```
    public abstract void alarm();
```

```
    //
```

```

    public abstract void engineBoom();

    //
    public void run() {

        //
        this.start();

        //
        this.engineBoom();

        //
        this.alarm();

        //
        this.stop();
    }
}
.
.
<i aaYf <9AcXY " ^Uj U
.

package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *                                     H1
 */
public class HummerH1Model extends HummerModel {

    @Override
    public void alarm() {
        System.out.println("    H1    ...");
    }

    @Override
    public void engineBoom() {
        System.out.println("    H1    ...");
    }

    @Override
    public void start() {
        System.out.println("    H1    ...");
    }
}

```

```

    }

    @Override
    public void stop() {
        System.out.println("    H1    ...");
    }
}
.

<i aaYf<&AcXY " ^Uj U
.

package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 * H1 H2
 */
public class HummerH2Model extends HummerModel {

    @Override
    public void alarm() {
        System.out.println("    H2    ...");
    }

    @Override
    public void engineBoom() {
        System.out.println("    H2    ...");
    }

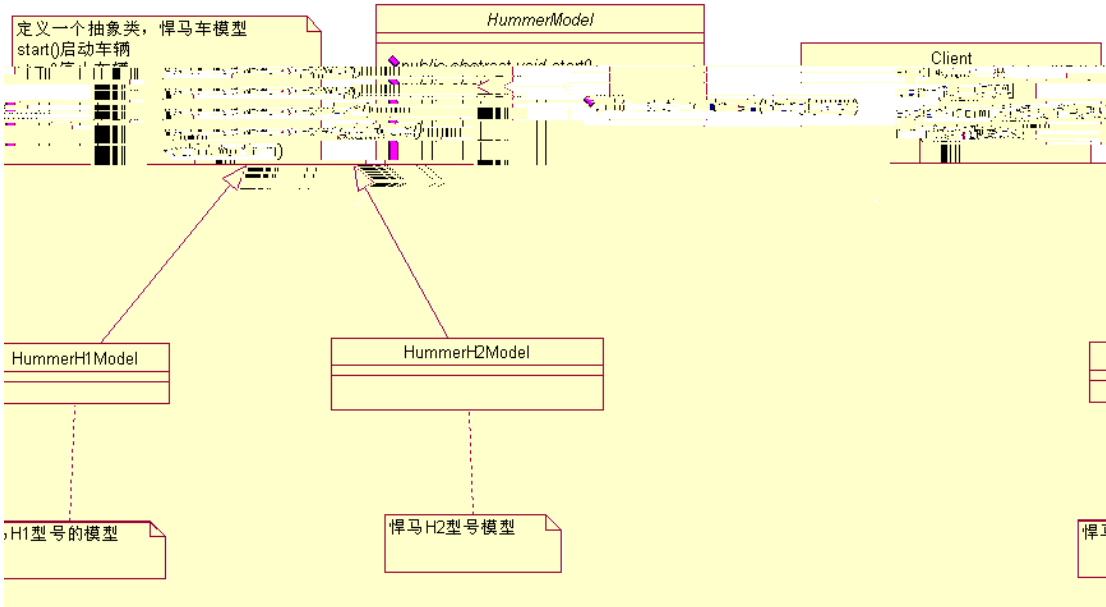
    @Override
    public void start() {
        System.out.println("    H2    ...");
    }

    @Override
    public void stop() {
        System.out.println("    H2    ...");
    }
}
.

```

7 jYbh

aUj b



7 jYbh" ^Uj U

```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class Client {
```

```
    public static void main(String[] args) {
```

```
        //      H1
```

```
        HummerModel h1 = new HummerH1Model();
```

```
        h1.run(); //
```

```
        //      H2
```

```
        HummerModel h2 = new HummerH2Model();
```

```
        h2.run();
```

```
    }
```

```
}
```

```

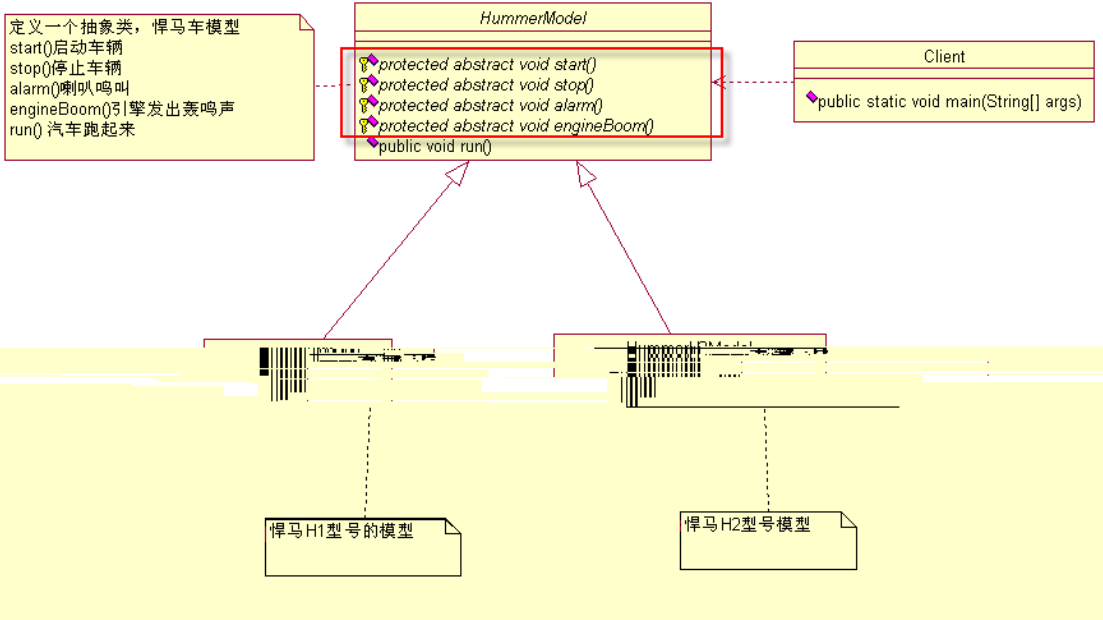
H1    ...
H1    ...
H1    ...
H1    ...
H2    ...
H2    ...
H2    ...
H2    ...

```

L

3

fi b



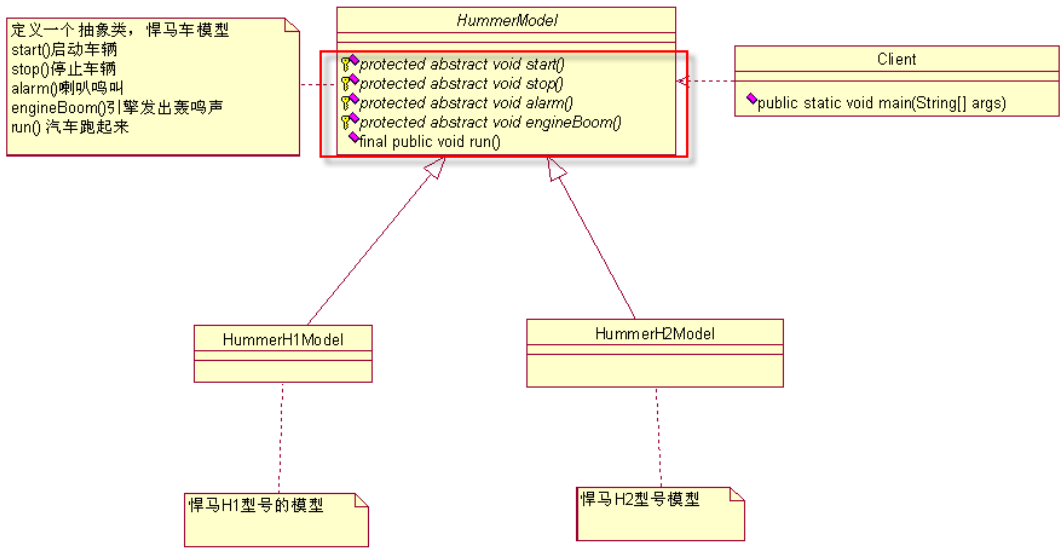
df chYVhYX

df chYVhYX

fi b

Z] bU

ž



```
final public void run() {  
  
    //  
    this.start();  
  
    //  
    this.engineBoom();  
  
    //  
    this.alarm();  
  
    //  
    this.stop();  
}  
}
```

fl

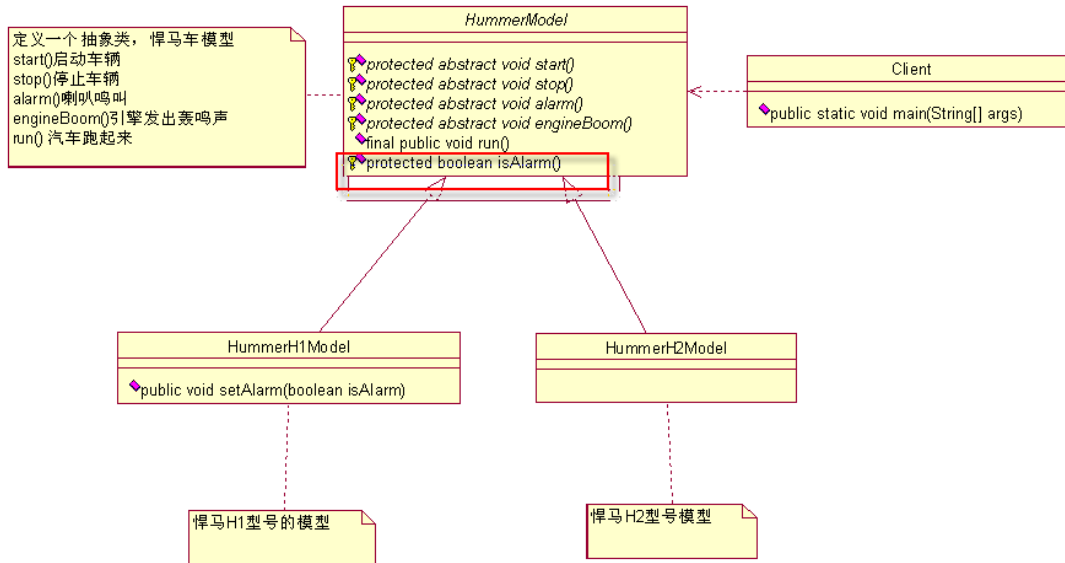
di V]W

dfchVWXYŁ

fi b

ghUfh ghcd

U Ufa Yb[]bY6cca



]g5 Ufafk

fk<cc_`AYh\cXk

```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 * Hummer Model
```

```
 */
```

```
public abstract class HummerModel {
```

```
    /*
```

```
     *
```

```
     *
```

```
    */
```

```
    protected abstract void start();
```

```
    //
```

```
    protected abstract void stop();
```

```
    //
```

```
    protected abstract void alarm();
```

```
    //
```

```
    protected abstract void engineBoom();
```

```
    //
```

```

final public void run() {

    //
    this.start();

    //
    this.engineBoom();

    //
    if(this.isAlarm()){
        this.alarm();
    }

    //
    this.stop();
}

//
protected boolean isAlarm(){
    return true;
}
}

```

<&

<i aaYf<&AcXY`" ^Uj U

```

package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 * H1 H2
 */
public class HummerH2Model extends HummerModel {

    @Override
    protected void alarm() {
        System.out.println(" H2 ...");
    }

    @Override
    protected void engineBoom() {

```

```

        System.out.println("    H2                ...");
    }

    @Override
    protected void start() {
        System.out.println("    H2                ...");
    }

    @Override
    protected void stop() {
        System.out.println("    H1                ...");
    }

    //
    @Override
    protected boolean isAlarm() {
        return false;
    }
}

```

<&

7]Ybh" ^Uj U

```
package com.cbf4life;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
```

```
public class Client {

    public static void main(String[] args) {
        HummerH2Model h2 = new HummerH2Model();
        h2.run(); //H2
    }
}

```

```

@Override
protected boolean isAlarm() {
    return this.alarmFlag;
}

//
public void setAlarm(boolean isAlarm){
    this.alarmFlag = isAlarm;
}
}

```

]g5 Ufafk

gYh5 Ufa

7]Ybh" ^Uj U

```

package com.cbf4life;

```

```

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */

```

```

public class Client {

    public static void main(String[] args) {
        //      H1
        HummerH1Model h1 = new HummerH1Model();
        h1.setAlarm(true);
        h1.run(); //
    }
}

```

H1 ...

H1 ...

H1 ...

H1 ...

fi b

\% gYh5 UfafZU gYŁ

fi b

fl ghUfhž

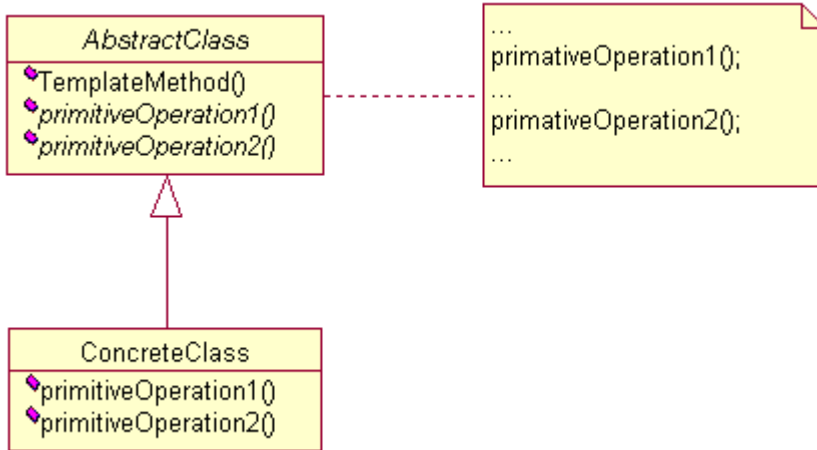
Yb[] bY6cca

U Ufa

ghcdŁ

]g5 Ufa

fi b



Hvad` UhYAYh\cX

cdYfUh] cb% cdYf Uh] cb&

LLL` =b` 5Vh] cb

df chYVhYX

YI YVhY

3'

✧

✧

✧

3

5

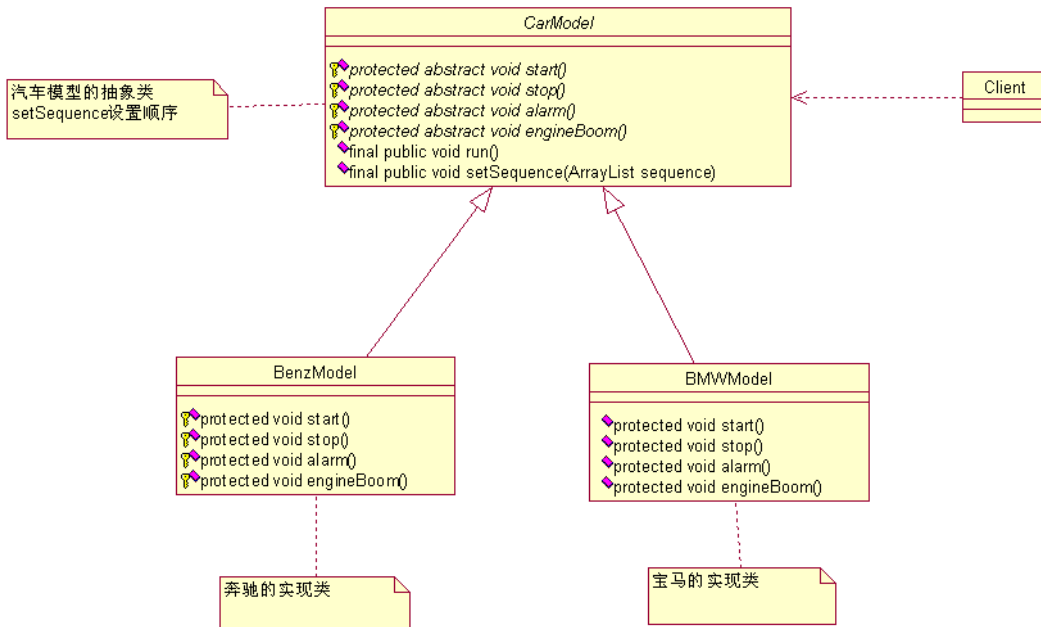
6

B

fi b

fi b

DfcXi Vh



7UfAcXY

fi b gYhGYei YbW

3

7UfAcXY " ^Uj U

```
package com.cbf4life;

import java.util.ArrayList;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public abstract class CarModel {

    //
    private ArrayList<String> sequence = new ArrayList<String>();

    /*
     *
     */
    protected abstract void start();

    //
    protected abstract void stop();

    //
    protected abstract void alarm();

    //
    protected abstract void engineBoom();

    //
    final public void run() {

        //
        for(int i=0;i<this.sequence.size();i++){
            String actionName = this.sequence.get(i);

            if(actionName.equalsIgnoreCase("start")){ // start
                this.start(); //
            }else if(actionName.equalsIgnoreCase("stop")){ // stop
                this.stop(); //
            }else if(actionName.equalsIgnoreCase("alarm")){ // alarm
                this.alarm(); //
            }else if(actionName.equalsIgnoreCase("engine boom")){ // engine
boom
                this.engineBoom(); //
            }
        }
    }
}
```

```
    }  
  }  
}  
  
//  
final public void setSequence(ArrayList<String> sequence){  
    this.sequence = sequence;  
}  
}
```

```
setSequence
```

1W

1W

run

BenzModel.java

```
package com.cbf4life;
```

```
/**  
 * @author cbf4Life cbf4life@126.com  
 * I'm glad to share my knowledge with you all.  
 *  
 */
```

```
public class BenzModel extends CarModel {
```

```
    @Override
```

```
    protected void alarm() {  
        System.out.println("                ...");  
    }
```

```
    @Override
```

```
    protected void engineBoom() {  
        System.out.println("                ...");  
    }
```

```
    @Override
```

```
    protected void start() {
        System.out.println("                ...");
    }

    @Override
    protected void stop() {
        System.out.println("                ...");
    }
}
```

BMWModel.java

```
package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class BMWModel extends CarModel {

    @Override
    protected void alarm() {
        System.out.println("                ...");
    }

    @Override
    protected void engineBoom() {
        System.out.println("                ...");
    }

    @Override
    protected void start() {
        System.out.println("                ...");
    }

    @Override
```

```
    protected void stop() {
        System.out.println("                ...");
    }
}
```

1

```
package com.cbf4life;
```

```
import java.util.ArrayList;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class Client {
```

```
    public static void main(String[] args) {
```

```
        /*
```

```
         *
```

```
         *
```

```
         */
```

```
        BenzModel benz = new BenzModel();
```

```
        ArrayList<String> sequence = new ArrayList<String>(); // run
```

```
        sequence.add("engine boom"); // run
```

```
        sequence.add("start"); //
```

```
        sequence.add("stop"); //
```

```
        //
```

```
        benz.setSequence(sequence);
```

```
        benz.run();
```

```
    }
```

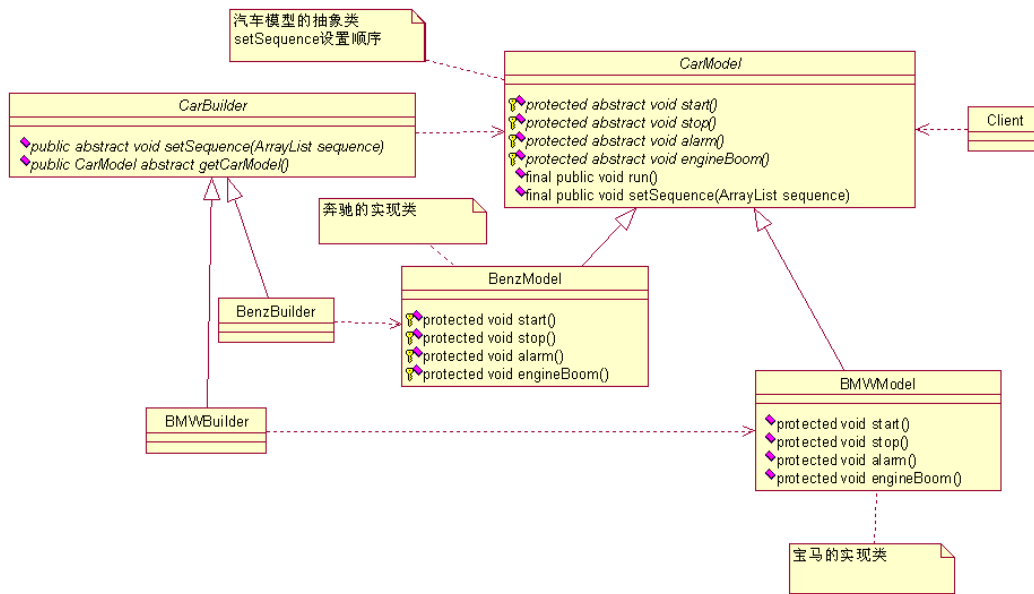
```
}
```



2

3

4 ...



CarBuilder

CarBuilder.java

```
package com.cbf4life;
```

```
import java.util.ArrayList;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public abstract class CarBuilder {
```

```
    //
```

```
    public abstract void setSequence(ArrayList<String> sequence);
```

```
    //
    public abstract CarModel getCarModel();
}
```

BenzBuilder.java

```
package com.cbf4life;
```

```
import java.util.ArrayList;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class BenzBuilder extends CarBuilder {
    private BenzModel benz = new BenzModel();
```

```
    @Override
```

```
    public CarModel getCarModel() {
```

```
        return this.benz;
```

```
    }
```

```
    @Override
```

```
    public void setSequence(ArrayList<String> sequence) {
```

```
        this.benz.setSequence(sequence);
```

```
    }
```

```
}
```

BMWBuilder.java

```
package com.cbf4life;
```

```
import java.util.ArrayList;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
*
*/
public class BMWBuilder extends CarBuilder {
    private BMWModel bmw = new BMWModel();

    @Override
    public CarModel getCarModel() {
        return this.bmw;
    }

    @Override
    public void setSequence(ArrayList<String> sequence) {
        this.bmw.setSequence(sequence);
    }
}
```

Client.java

```
package com.cbf4life;

import java.util.ArrayList;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Client {

    public static void main(String[] args) {
        /*
         *
         *
         */
        ArrayList<String> sequence = new ArrayList<String>(); // run
        sequence.add("engine boom"); // run
        sequence.add("start"); //
        sequence.add("stop"); //

        //
    }
}
```

```
        BenzBuilder benzBuilder = new BenzBuilder();
        //          builder
        benzBuilder.setSequence(sequence);
        //
        BenzModel benz = (BenzModel)benzBuilder.getCarModel();
        //
        benz.run();
    }
}
```



Client.java

```
package com.cbf4life;

import java.util.ArrayList;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Client {

    public static void main(String[] args) {
        ArrayList<String> sequence = new ArrayList<String>(); // run
        sequence.add("engine boom"); //          run
        sequence.add("start"); //
        sequence.add("stop"); //

        //
        BenzBuilder benzBuilder = new BenzBuilder();
        //          builder
        benzBuilder.setSequence(sequence);
    }
}
```

```
//
BenzModel benz = (BenzModel)benzBuilder.getCarModel();
//
benz.run();

//
BMWBuilder bmwBuilder = new BMWBuilder();
bmwBuilder.setSequence(sequence);
BMWModel bmw = (BMWModel)bmwBuilder.getCarModel();
bmw.run();

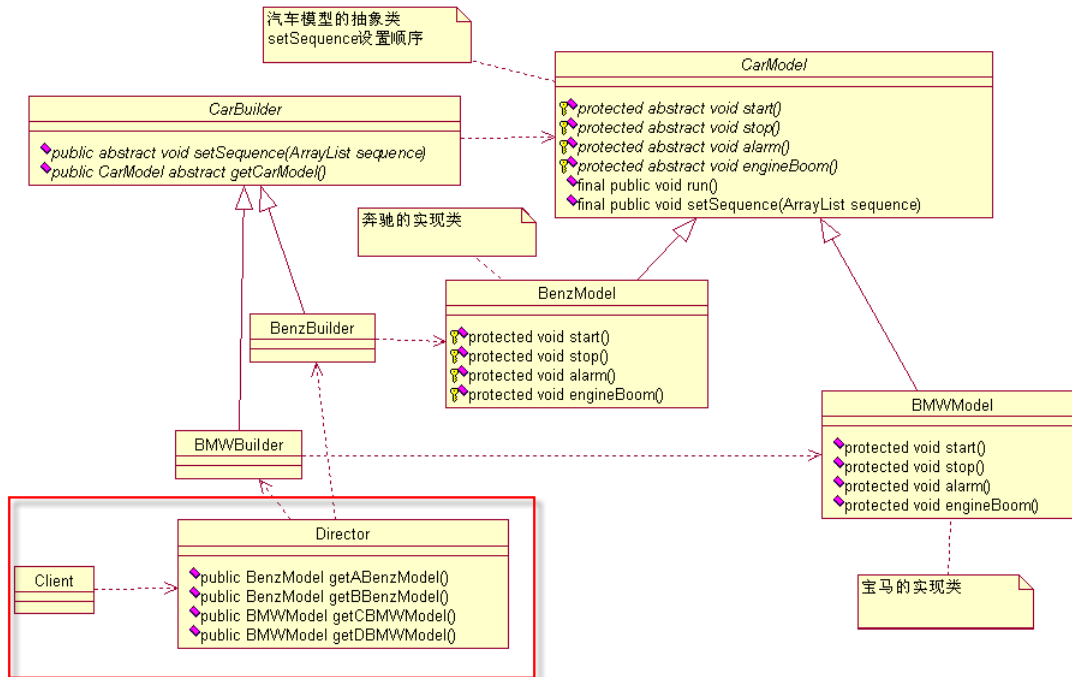
}

}
```



(Product)

start, stop, alarm, engineBoom



Director

```

A           start           (stop)           ;
B           engine boom ,           (star) ,           (stop) ,
C           alarm           start ,           (stop)
D           (start)
E           F           ...           (start)           (stop)           (alarm)           (engine boom)
  
```

Director.java

```

package com.cbf4life;

import java.util.ArrayList;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Director {
    private ArrayList<String> sequence = new ArrayList();
    private BenzBuilder benzBuilder = new BenzBuilder();
  
```

```
private BMWBuilder bmwBuilder = new BMWBuilder();

/*
 * A           start,   stop,
 */
public BenzModel getABenzModel(){
    //
    this.sequence.clear();

    //   ABenzModel
    this.sequence.add("start");
    this.sequence.add("stop");

    //
    this.benzBuilder.setSequence(this.sequence);
    return (BenzModel)this.benzBuilder.getCarModel();
}

/*
 * B
 */
public BenzModel getBBenzModel(){
    this.sequence.clear();

    this.sequence.add("engine boom");
    this.sequence.add("start");
    this.sequence.add("stop");

    this.benzBuilder.setSequence(this.sequence);
    return (BenzModel)this.benzBuilder.getCarModel();
}

/*
 * C
 */
public BMWModel getCBMWModel(){
    this.sequence.clear();

    this.sequence.add("alarm");
    this.sequence.add("start");
    this.sequence.add("stop");

    this.bmwBuilder.setSequence(this.sequence);
```

```

        return (BMWModel) this.bmwBuilder.getCarModel();
    }

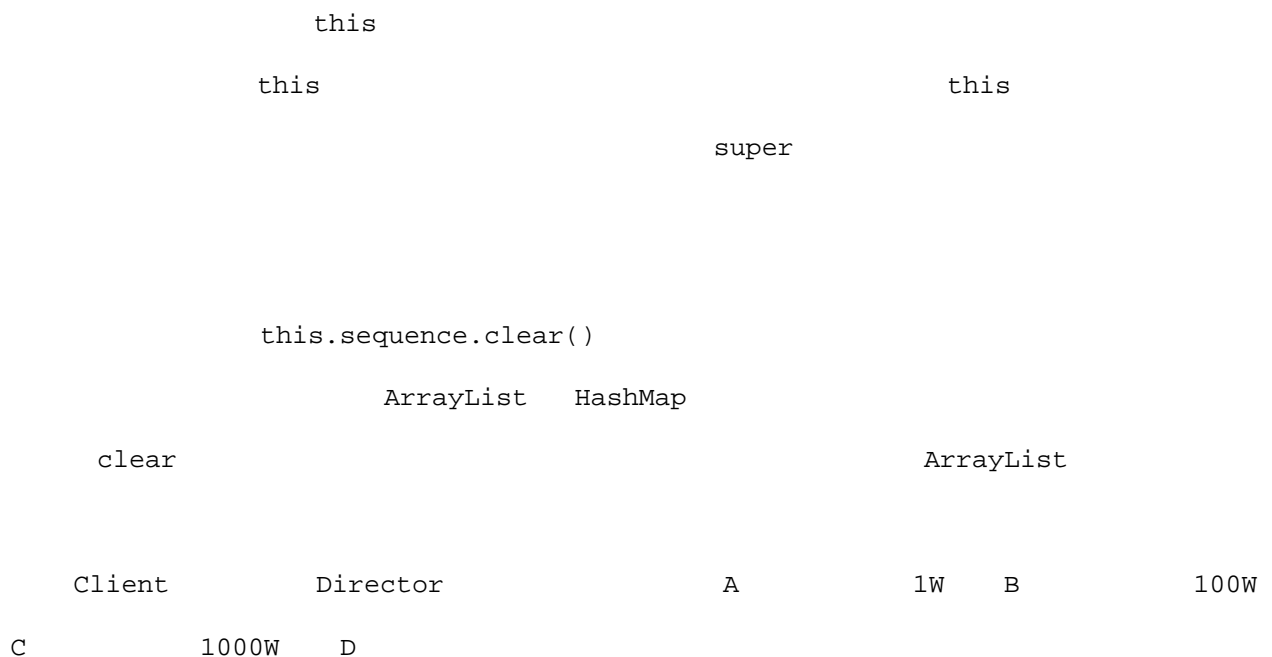
    /**
     * D
     */
    public BMWModel getDBMWModel(){
        this.sequence.clear();

        this.sequence.add("start");

        this.bmwBuilder.setSequence(this.sequence);
        return (BMWModel) this.benzBuilder.getCarModel();
    }

    /**
     *
     *
     */
}

```



```

package com.cbf4life;

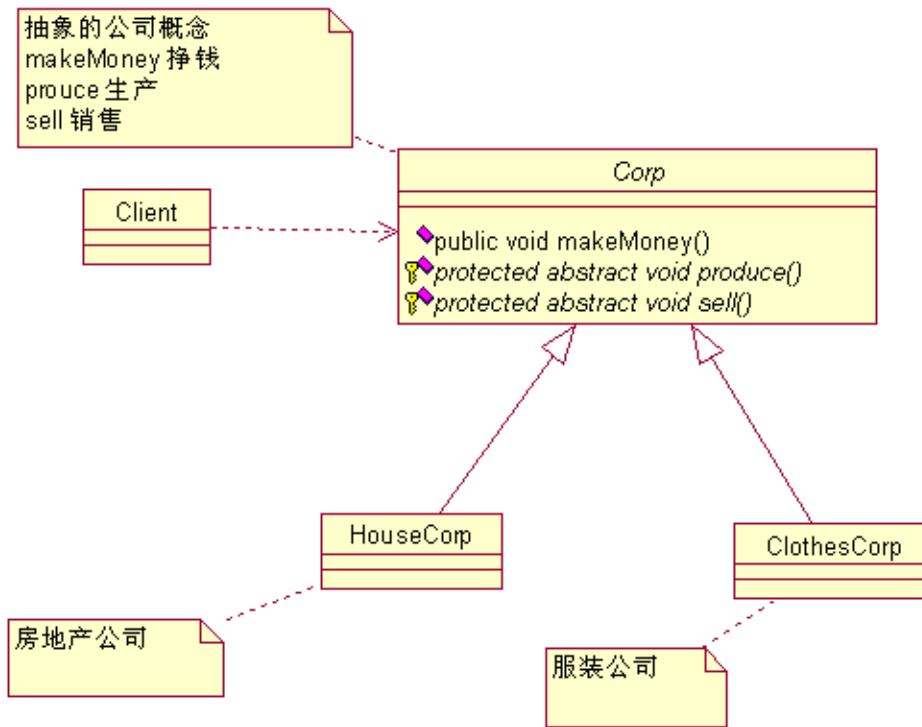
```

```

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.

```

*



Corp

Corp

```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public abstract class Corp {
```

```

    /*
     *
     *
     */
    protected abstract void produce();

    /*
     *
     */
    protected abstract void sell();

    //
    public void makeMoney(){

        //
        this.produce();

        //
        this.sell();

    }
}

```

Java

HouseCorp

```

package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *          realty corp
 *          house corp!
 */
public class HouseCorp extends Corp {

    //
    protected void produce() {
        System.out.println("          ...");
    }
}

```

```
//
protected void sell() {
    System.out.println("        ...");
}

//        High
public void makeMoney(){
    super.makeMoney();
    System.out.println("        ...");
}
}
```

```
package com.cbf4life;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class ClothesCorp extends Corp {

    //
    protected void produce() {
        System.out.println("        ...");
    }

    //
    protected void sell() {
        System.out.println("        ...");
    }

    //
    public void makeMoney(){
        super.makeMoney();
        System.out.println("        ...");
    }
}
```

Client.java

```
package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Client {

    public static void main(String[] args) {
        System.out.println("-----");
        //
        HouseCorp houseCorp =new HouseCorp();
        //
        houseCorp.makeMoney();
        System.out.println("\n");

        System.out.println("-----");
        ClothesCorp clothesCorp = new ClothesCorp();
        clothesCorp.makeMoney();
    }
}
```



```

        System.out.println("        iPod...");
    }

    //        iPod
    protected void sell() {
        System.out.println("iPod        ...");
    }

    //
    public void makeMoney(){
        super.makeMoney();
        System.out.println("        ...");
    }
}

```

Client.java

```

package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Client {

    public static void main(String[] args) {
        System.out.println("-----");
        //
        HouseCorp houseCorp =new HouseCorp();
        //
        houseCorp.makeMoney();
        System.out.println("\n");

        System.out.println("-----");
        IPodCorp iPodCorp = new IPodCorp();
        iPodCorp.makeMoney();

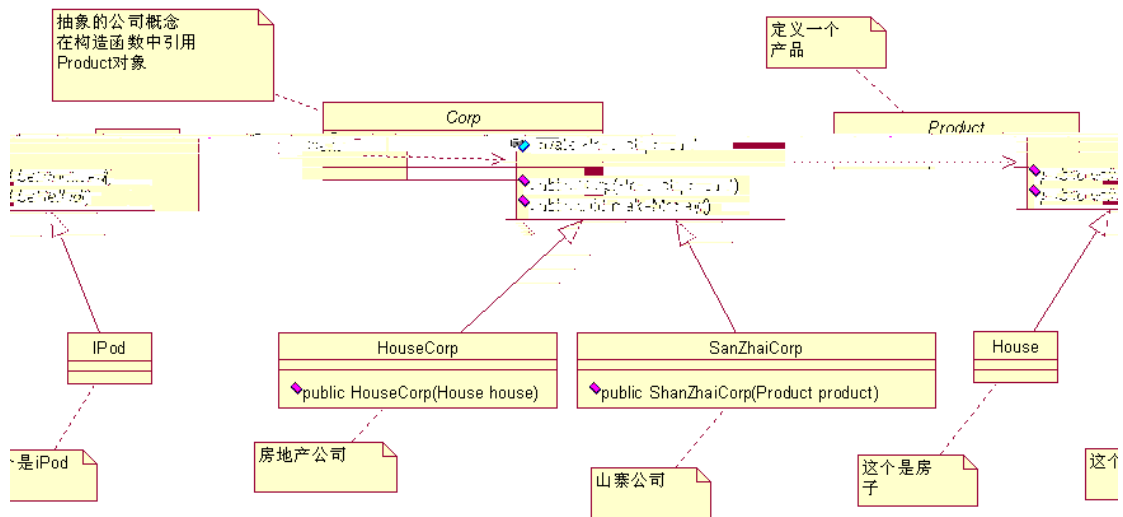
    }
}

```

iPod

iPod MP4,

Thinking Thinking... I got an idea!



Corp Product

Product

```
package com.cbf4life.implementor;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
```

```
public abstract class Product {
```

```
    //
    public abstract void beProduced();
```

```
//  
public abstract void beSelled();  
  
}
```

House

```
package com.cbf4life.implementor;  
  
/**  
 * @author cbf4Life cbf4life@126.com  
 * I'm glad to share my knowledge with you all.  
 *  
 */  
public class House extends Product {  
  
    //  
    public void beProducted() {  
        System.out.println("                ...");  
    }  
  
    //  
    public void beSelled() {  
        System.out.println("                ...");  
    }  
  
}
```

Clothes

```
package com.cbf4life.implementor;  
  
/**  
 * @author cbf4Life cbf4life@126.com  
 * I'm glad to share my knowledge with you all.  
 *  
 */  
public class Clothes extends Product {  
  
    public void beProducted() {
```

```
        System.out.println("                ...");
    }

    public void beSelled() {
        System.out.println("                ...");
    }
}
```

iPod

```
package com.cbf4life.implementor;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 * iPod
 */
public class IPod extends Product {

    public void beProducted() {
        System.out.println("        iPod                ...");
    }

    public void beSelled() {
        System.out.println("        iPod                ...");
    }
}
```

Corp

```
package com.cbf4life.abstraction;

import com.cbf4life.implementor.Product;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
```

```
public abstract class Corp {

    //
    private Product product;

    //
    public Corp(Product product){
        this.product = product;
    }

    //
    public void makeMoney(){

        //
        this.product.beProducted();

        //
        this.product.beSelled();

    }

}
```

HouseCorp

```
package com.cbf4life.abstraction;

import com.cbf4life.implementor.House;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 * realty corp
 * house corp!
 */
public class HouseCorp extends Corp {

    //      House
    public HouseCorp(House house){
        super(house);
    }
}
```

```
    }  
  
    //          High  
    public void makeMoney(){  
        super.makeMoney();  
        System.out.println("          ...");  
    }  
}
```

:

```
package com.cbf4life.abstraction;  
  
import com.cbf4life.implementor.Product;  
  
/**  
 *
```

Client

```
package com.cbf4life;

import com.cbf4life.abstraction.HouseCorp;
import com.cbf4life.abstraction.ShanZhaiCorp;
import com.cbf4life.implementor.Clothes;
import com.cbf4life.implementor.House;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Client {

    public static void main(String[] args) {
        House house = new House();
        System.out.println("-----");
        //
        HouseCorp houseCorp =new HouseCorp(house);
        //
        houseCorp.makeMoney();
        System.out.println("\n");

        //
        System.out.println("-----");
        ShanZhaiCorp shanZhaiCorp = new ShanZhaiCorp(new Clothes());
        shanZhaiCorp.makeMoney();
    }
}
```



```
...
...
...
```

iPod

```
package com.cbf4life;

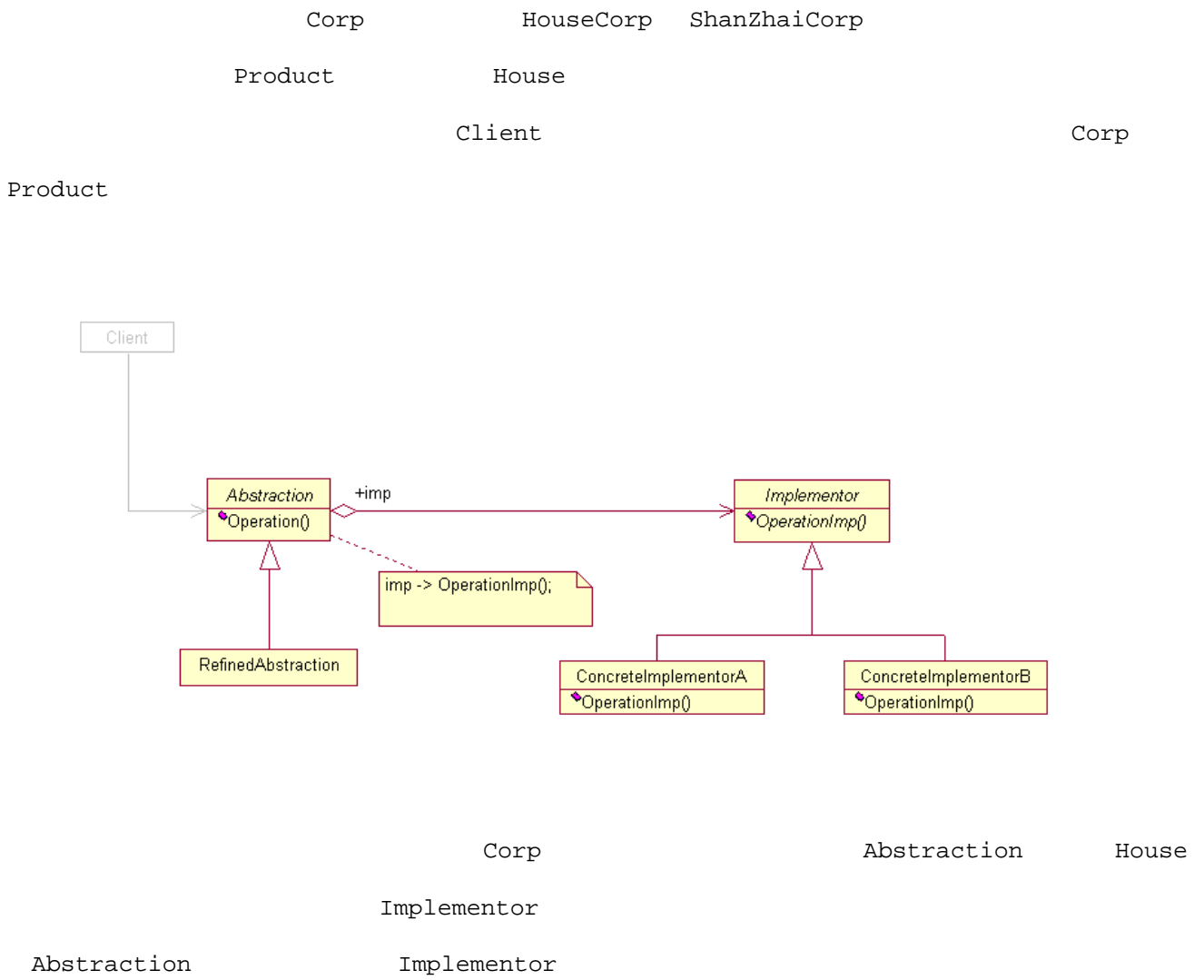
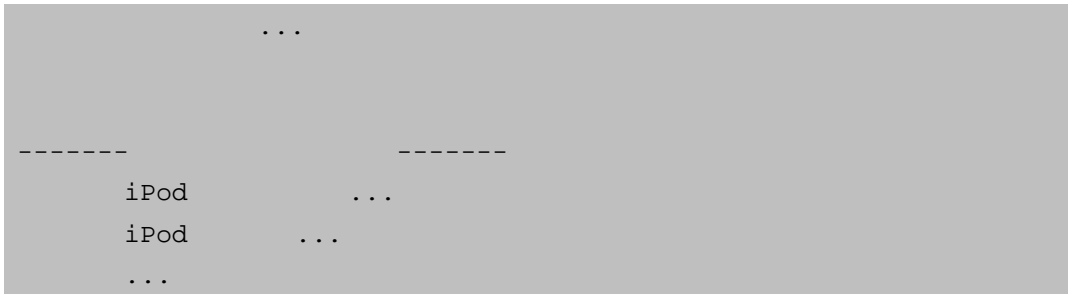
import com.cbf4life.abstraction.HouseCorp;
import com.cbf4life.abstraction.ShanZhaiCorp;
import com.cbf4life.implementor.House;
import com.cbf4life.implementor.iPod;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Client {

    public static void main(String[] args) {
        House house = new House();
        System.out.println("-----");
        //
        HouseCorp houseCorp =new HouseCorp(house);
        //
        houseCorp.makeMoney();
        System.out.println("\n");

        //
        System.out.println("-----");
        //ShanZhaiCorp shanZhaiCorp = new ShanZhaiCorp(new Clothes());
        ShanZhaiCorp shanZhaiCorp = new ShanZhaiCorp(new iPod());
        shanZhaiCorp.makeMoney();
    }
}
```

```
-----
...
...
```



OCP

Father

A Son

GrandSon

Son

GrandSon

Father

A

Son GrandSon

Fater

Son

GrandSon

Son

GrandSon

Son

2007

ERP

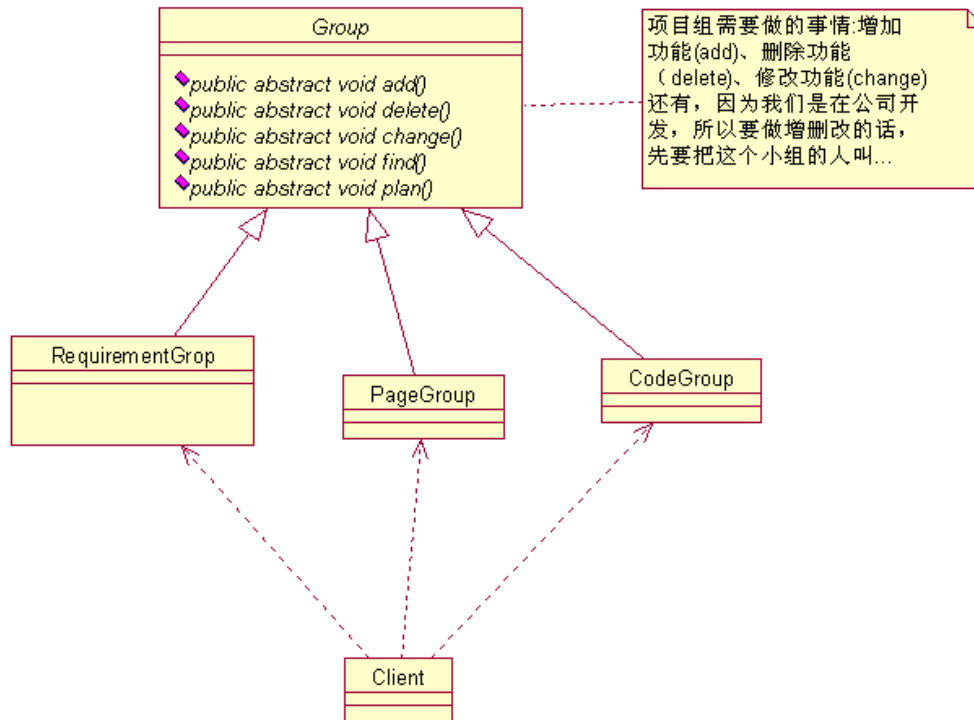
IT

Requirement Group

RG

Page Group, PG

Code Group CG



```
package com.cbf4life;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
```

```
public abstract class Group {

    //
    public abstract void find();

    //
    public abstract void add();

    //
    public abstract void delete();

    //
    public abstract void change();
}
```

```
//
public abstract void plan();

}

(Receiver)

P      RequirmentGroup

package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class RequirementGroup extends Group {

    //
    public void find() {
        System.out.println("      ...");
    }

    //
    public void add() {
        System.out.println("      ...");
    }

    //
    public void change() {
        System.out.println("      ...");
    }

    //
    public void delete() {
        System.out.println("      ...");
    }

    //
    public void plan() {
        System.out.println("      ...");
    }
}
```

```
    }  
}
```

PageGroup

```
package com.cbf4life;  
  
/**  
 * @author cbf4Life cbf4life@126.com  
 * I'm glad to share my knowledge with you all.  
 *  
 */  
public class PageGroup extends Group {  
  
    //  
    public void find() {  
        System.out.println("        ...");  
    }  
  
    //  
    public void add() {  
        System.out.println("        ...");  
    }  
  
    //  
    public void change() {  
        System.out.println("        ...");  
    }  
  
    //  
    public void delete() {  
        System.out.println("        ...");  
    }  
  
    //  
    public void plan() {  
        System.out.println("        ...");  
    }  
}
```

CodeGroup

```
package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class CodeGroup extends Group {

    //
    public void find() {
        System.out.println("    ...");
    }

    //
    public void add() {
        System.out.println("    ...");
    }

    //
    public void change() {
        System.out.println("    ...");
    }

    //
    public void delete() {
        System.out.println("    ...");
    }

    //
    public void plan() {
        System.out.println("    ...");
    }
}
```

```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class Client {
```

```
    public static void main(String[] args) {
```

```
        //
```

```
        System.out.println("-----");
```

```
        Group rg = new RequirementGroup();
```

```
        //
```

```
        rg.find();
```

```
        //
```

```
        rg.add();
```

```
        //
```

```
* @author cbf4Life cbf4life@126.com
* I'm glad to share my knowledge with you all.
*
*/
public class Client {

    public static void main(String[] args) {

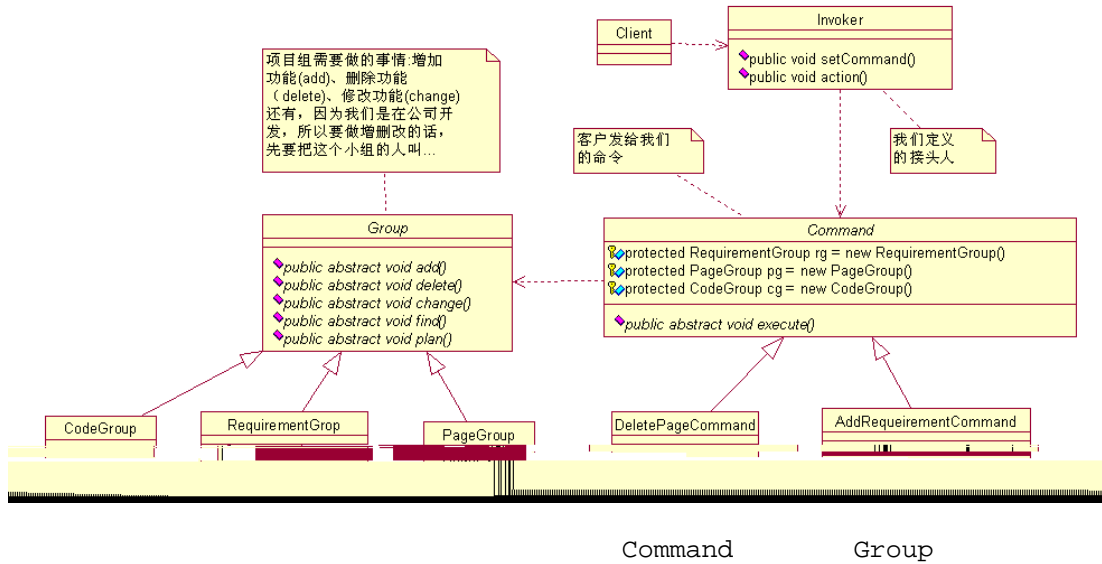
        //
        System.out.println("-----");
        Group pg = new PageGroup();
        //
        pg.find();

        //
        pg.delete();

        //
        pg.plan();
    }
}
```



...



Group

Command

execute

```
Invoker      :      setComand      action
              action      command      execute
Command
```

```
package com.cbf4life.command;
```

```
import com.cbf4life.receiver.CodeGroup;
```

```
import com.cbf4life.receiver.PageGroup;
```

```
import com.cbf4life.receiver.RequirementGroup;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public abstract class Command {
```

```
    //
```

```
    protected RequirementGroup rg = new RequirementGroup(); //
```

```
    protected PageGroup pg = new PageGroup(); //
    protected CodeGroup cg = new CodeGroup(); // ;

    //
    public abstract void execute();
}
```

AddRequirementCommand ,

```
package com.cbf4life.command;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class AddRequirementCommand extends Command {
    //
    public void execute() {
        //
        super.rg.find();

        //
        super.rg.add();

        //
        super.rg.plan();
    }
}
```

,DeletePageCommand

```
package com.cbf4life.command;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
```

```
public class DeletePageCommand extends Command {

    //
    public void execute() {
        //
        super.pg.find();

        //
        super.rg.delete();

        //
        super.rg.plan();
    }

}
```

Command

AddCodeCommand

DeleteRequirementCommand

Invoker

```
package com.cbf4life.invoker;

import com.cbf4life.command.Command;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Invoker {
    //
    private Command command;

    //
    public void setCommand(Command command){
        this.command = command;
    }

    //
    public void action(){
        this.command.execute();
    }
}
```

```
}
```

```
package com.cbf4life;
```

```
import com.cbf4life.command.AddRequirementCommand;
```

```
import com.cbf4life.command.Command;
```

```
import com.cbf4life.invoker.Invoker;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class Client {
```

```
    public static void main(String[] args) {
```

```
        //
```

```
        Invoker xiaoSan = new Invoker(); //
```

```
        //
```

```
        System.out.println("-----");
```

```
        //
```

```
        Command command = new AddRequirementCommand();
```

```
        //
```

```
        xiaoSan.setCommand(command);
```

```
        //
```

```
        xiaoSan.action();
```

```
    }
```

```
}
```

```
:
```



Look:

```
package com.cbf4life;

import com.cbf4life.command.Command;
import com.cbf4life.command.DeletePageCommand;
import com.cbf4life.invoker.Invoker;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Client {

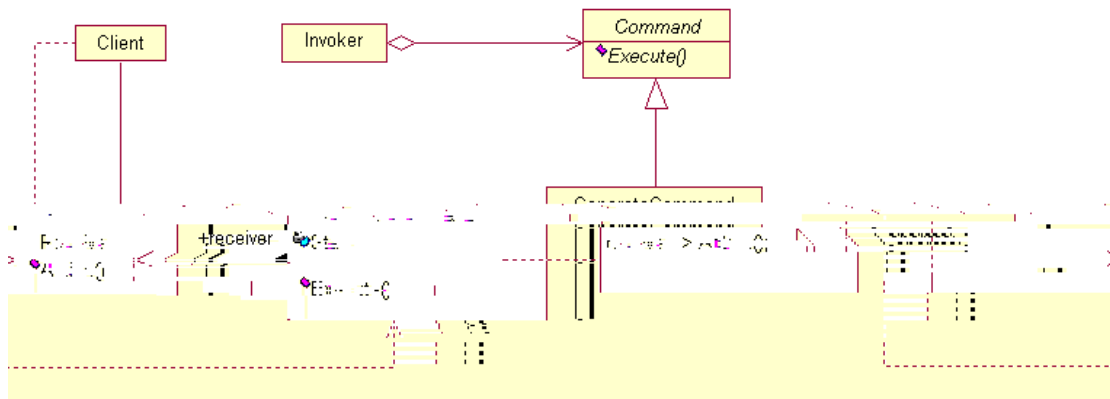
    public static void main(String[] args) {
        //
        Invoker xiaoSan = new Invoker(); //

        //
        System.out.println("-----");
        //
        //Command command = new AddRequirementCommand();
        Command command = new DeletePageCommand();

        //
        xiaoSan.setCommand(command);

        //
        xiaoSan.action();
    }
}
```





Receiver

Group

Command

Invoker

Invoker

Receiver

Command

...

AddRequirementCommand *execute*

PageGroup *CodePage*

```
package com.cbf4life.command;
```

```
/**
```

```
 * @author cbf4Life    cbf4life@126.com
```

```
* I'm glad to share my knowledge with you all.
*
*/
public class AddRequirementCommand extends Command {
    //
    public void execute() {
        //
        super.rg.find();

        //
        super.rg.add();

        //
        super.pg.add();

        //
        super.cg.add();

        //
        super.rg.plan();
    }
}
```

Ctrl+Z undo

? undo

13

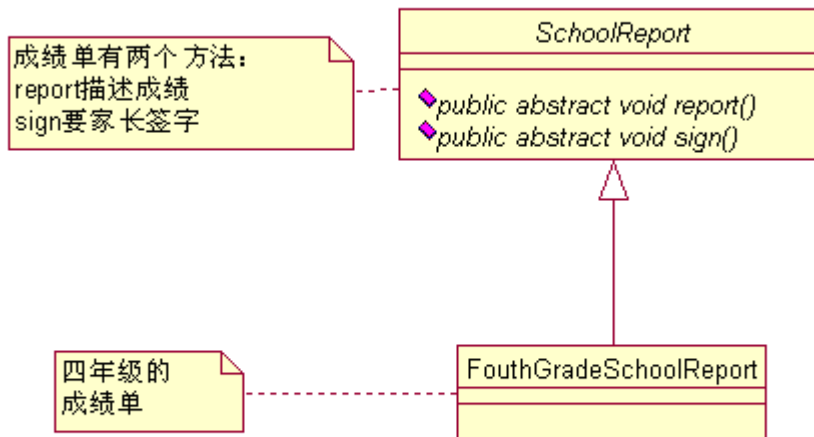
Decorator Pattern

@UX] Yg' UbX' [Ybh` YaYbžAUm=' [Yh' nci f` UhhYbh] cbžD' YUgY3žBck' =' a' [c] b['hc' hU' _' UVci h' XYWžfUhc f' dUhhYfb"

&\$\$&

(\$

()



```
package com.cbf4life;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
```

```
public abstract class SchoolReport {

    //
    public abstract void report();

    //
    public abstract void sign();
}
```

```
: ci h\; fUXGWcc` FYdcfh
```

```
package com.cbf4life;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
```

```

*
*   "   "
*/
public class FouthGradeSchoolReport extends SchoolReport {

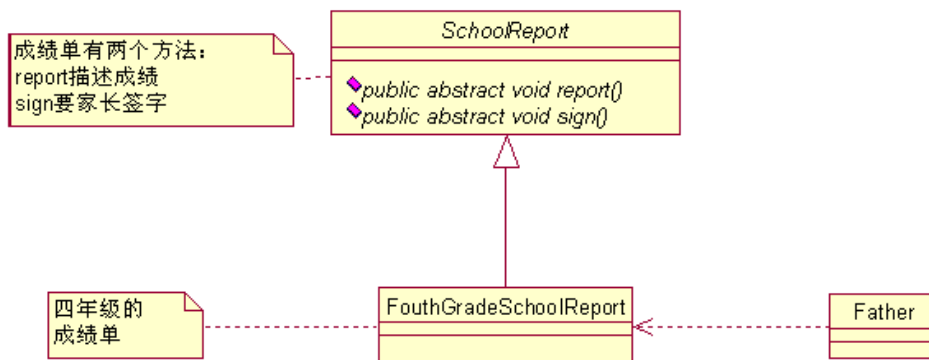
    //
    public void report() {
        //
        System.out.println("    XXX    :");
        System.out.println("    .....");
        System.out.println("    62    65    98    63");
        System.out.println("    .....");
        System.out.println("                                ");
    }

    //
    public void sign(String name) {
        System.out.println("                                "+name);
    }
}

```

*& *)

-\$



: Un\Yf

```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class Father {
```

```
    public static void main(String[] args) {
```

```
        //
```

```
        SchoolReport sr = new FouthGradeSchoolReport();
```

```
        //
```

```
        sr.report();
```

```
        //
```

```
    }
```

```
}
```

```
.
```

```
.
```

```
XXX :
```

```
.....
```

```
62 65 98 63
```

```
.....
```

```
:
```

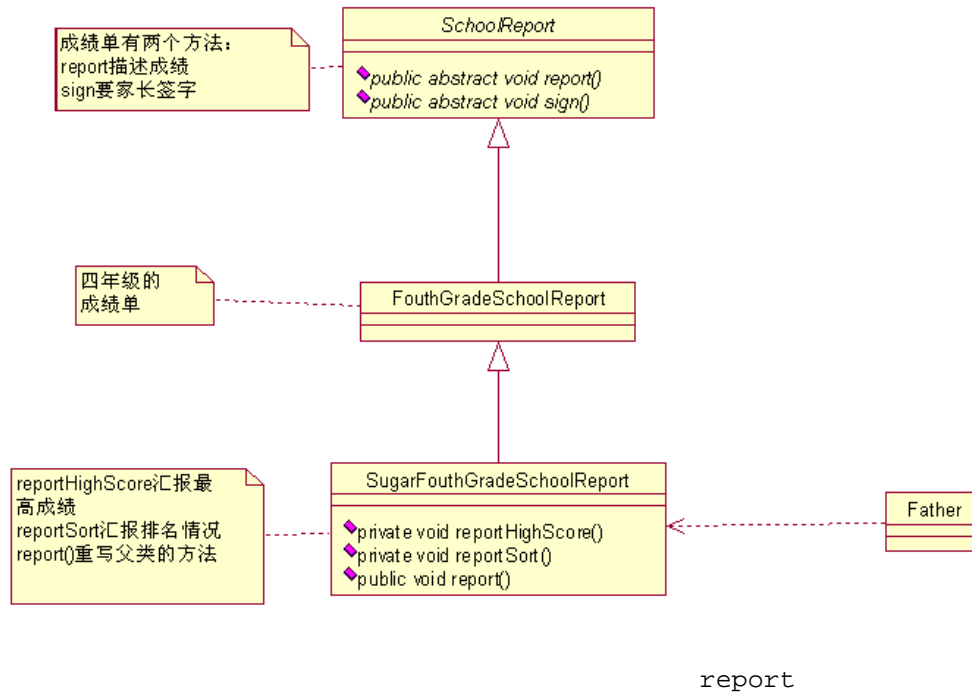
```
75
```

```
78
```

```
80
```

```
60
```

```
70
```



```
package com.cbf4life;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 * Sugar
 *
 */
public class SugarFouthGradeSchoolReport extends FouthGradeSchoolReport {

    //
    private void reportHighScore(){
        System.out.println("          75          78          80");
    }

    //
    private void reportSort(){
        System.out.println("          38 ...");
    }

    //
    @Override
    public void report(){
```

```
        this.reportHighScore(); //
        super.report(); //
        this.reportSort(); //
    }
}
```

Father

```
package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Father {

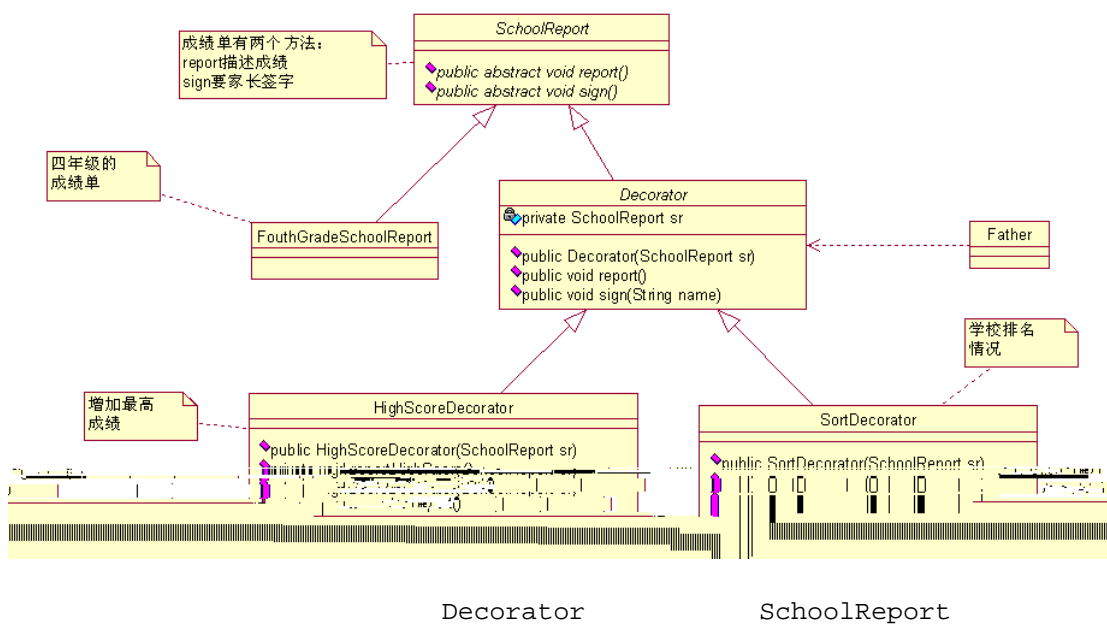
    public static void main(String[] args) {
        //
        SchoolReport sr= new SugarFouthGradeSchoolReport();

        //
        sr.report();

        //
        sr.sign(" "); //
    }
}
```

```

          75      78      80
    XXX   :
    .....
    62    65    98    63
    .....
    38 ...
```



```

package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public abstract class Decorator extends SchoolReport{

    //
    private SchoolReport sr;

    //
    public Decorator(SchoolReport sr){
  
```

```

        this.sr = sr;
    }

    //
    public void report(){
        this.sr.report();
    }

    //
    public void sign(String name){
        this.sr.sign(name);
    }
}

```

Decorator

SchoolReport

report

HighScoreDecorator

```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class HighScoreDecorator extends Decorator {
```

```
    //
```

```
    public HighScoreDecorator(SchoolReport sr){
```

```
        super(sr);
```

```
    }
```

```
    //
```

```
    private void reportHighScore(){
```

```
        System.out.println("          75          78          80");
```

```
    }
```

```
    //
```

```
    @Override
```

```
    public void report(){
```

```
        this.reportHighScore();
```

```
        super.report();
```

```
}  
}
```

```
report
```

```
reportHighScore
```

```
SortDecorator
```

```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class SortDecorator extends Decorator {
```

```
    //
```

```
    public SortDecorator(SchoolReport sr){
```

```
        super(sr);
```

```
    }
```

```
    //
```

```
    private void reportSort(){
```

```
        System.out.println("          38 ...");
```

```
    }
```

```
    //
```

```
    @Override
```

```
    public void report(){
```

```
        super.report();
```

```
        this.reportSort();
```

```
    }
```

```
}
```

```
package com.cbf4life;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```

*/
public class Father {

    public static void main(String[] args) {
        //
        SchoolReport sr;
        sr = new FouthGradeSchoolReport(); //

        //
        sr = new HighScoreDecorator(sr);

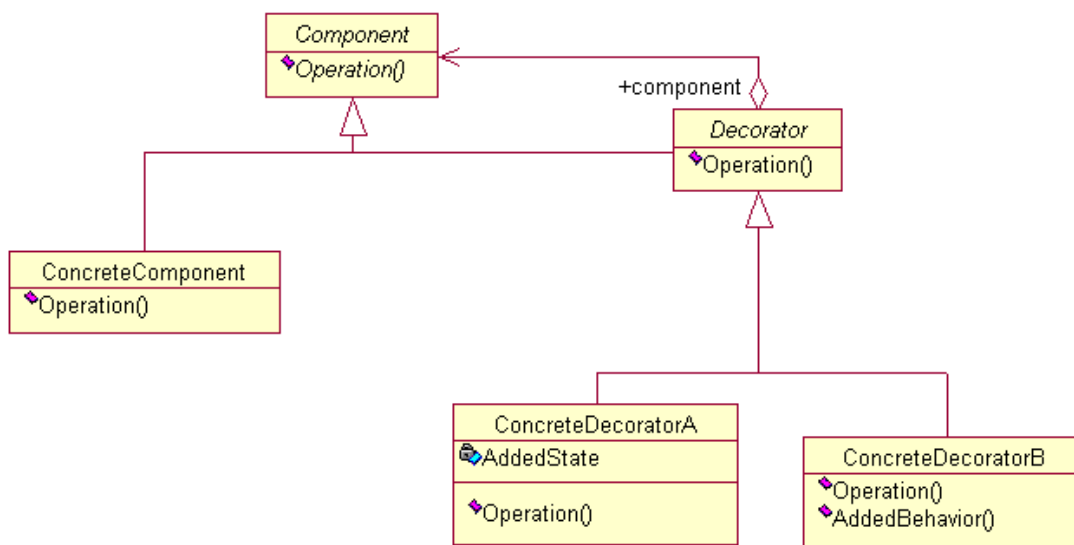
        //
        sr = new SortDecorator(sr);

        //
        sr.report();

        //
        sr.sign(" "); //
    }
}

```

(\$ '\$



7cadcbYbh

7cadcbYbh

7cbWYhY7cadcbYbh

8YWfUhcf

dfjj UhY

7cadcbYbh

7cbWYhY8YWfUhcf5 7cbWYhY8YWfUhcf6

Gcfh8YWfUhcf

: Uh\Yf

...

: Uh\YfžGcbž; fUbXGcb

Gcb

Gcb

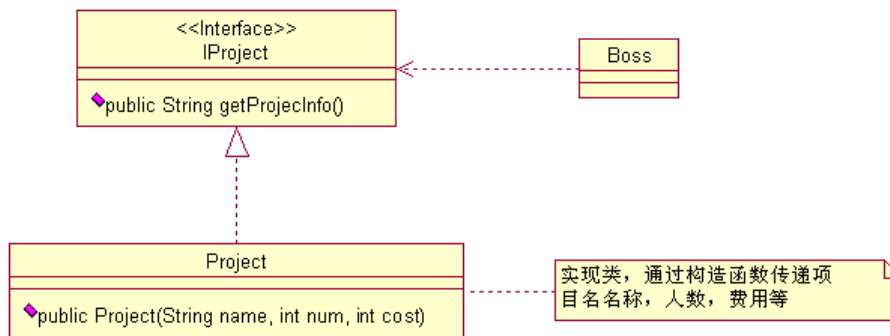
; fUbXGcb

; fUbXGcb

Gcb8YWfUhcf

Gcb

103



```
package com.cbf4life;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public interface IProject {

    //
    public String getProjectInfo();
}
```

```
package com.cbf4life;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Project implements IProject {
    //
    private String name = "";

    //
    private int num = 0;

    //
    private int cost = 0;

    //
    public Project(String name,int num,int cost){
        //
        this.name = name;
        this.num = num;
        this.cost=cost;
    }

    //
    public String getProjectInfo() {
        String info = "";

        //
        info = info+ "          " + this.name;
        //
        info = info + "\t          : "+ this.num;
        //
        info = info+ "\t          "+ this.cost;

        return info;
    }
}
```

easy

```
package com.cbf4life;

import java.util.ArrayList;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Boss {

    public static void main(String[] args) {
        // List
        ArrayList<IProject> projectList = new ArrayList<IProject>();

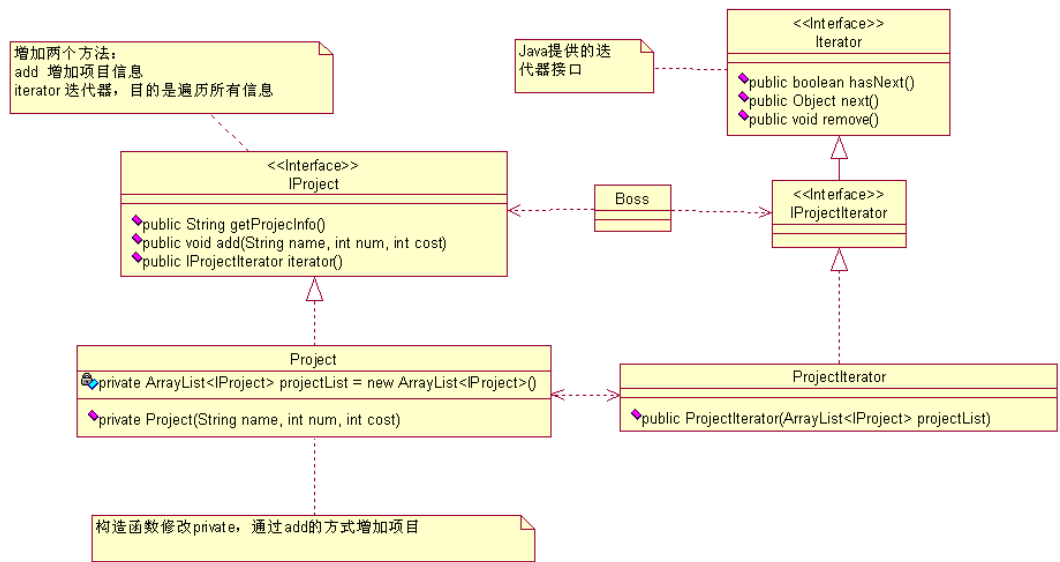
        //
        projectList.add(new Project(" ",10,100000));
        //
        projectList.add(new Project(" ",100,10000000));
        //
        projectList.add(new Project(" ",10000,1000000000));

        // 100
        for(int i=4;i<104;i++){
            projectList.add(new Project(" "+i+" ",i*5,i*1000000));
        }

        // ArrayList
        for(IProject project:projectList){
            System.out.println(project.getProjectInfo());
        }
    }
}
```

	:	100	10000000
	:	10000	1000000000
4	:	20	4000000
5	:	25	5000000
.			
.			
.			

Happy



IProject

```

package com.cbf4life.pattern;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public interface IProject {

    //
    public void add(String name,int num,int cost);
  
```

```
//  
public String getProjectInfo();  
  
//  
public IProjectIterator iterator();  
}
```

add

add

```
package com.cbf4life.pattern;  
  
import java.util.ArrayList;  
  
/**  
 * @author cbf4Life cbf4life@126.com  
 * I'm glad to share my knowledge with you all.  
 *  
 */  
@SuppressWarnings("all")  
public class Project implements IProject {  
    //  
    private ArrayList<IProject> projectList = new ArrayList<IProject>();  
  
    //  
    private String name = "";  
  
    //  
    private int num = 0;  
  
    //  
    private int cost = 0;  
  
    public Project(){  
  
    }  
  
    //  
    private Project(String name,int num,int cost){  
        //  
        this.name = name;  
        this.num = num;  
    }  
}
```

```
        this.cost=cost;
    }

    //
    public void add(String name,int num,int cost){
        this.projectList.add(new Project(name,num,cost));
    }

    //
    public String getProjectInfo() {
        String info = "";

        //
        info = info+ "          " + this.name;
        //
        info = info + "\t      : "+ this.num;
        //
        info = info+ "\t      "+ this.cost;

        return info;
    }

    //
    public IProjectIterator iterator(){
        return new ProjectIterator(this.projectList);
    }
}
```

```
package com.cbf4life.pattern;
```

```
import java.util.Iterator;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *      Iterator
 */
@SuppressWarnings("all")
public interface IProjectIterator extends Iterator {
```

```
}
```

Java

```
    IProjectIterator        Project
        IProjectIterator
Iterator,    IProjectIterator        Iterator
        API

package com.cbf4life.pattern;

import java.util.ArrayList;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class ProjectIterator implements IProjectIterator {

    //        ArrayList
    private ArrayList<IProject> projectList = new ArrayList<IProject>();

    private int currentItem = 0;

    //        projectList
    public ProjectIterator(ArrayList<IProject> projectList){
        this.projectList = projectList;
    }

    //
    public boolean hasNext() {
        //
        boolean b = true;
        if(this.currentItem>=projectList.size() ||
this.projectList.get(this.currentItem) == null){
            b =false;
        }
    }
}
```

```
    }
    return b;
}

//
public IProject next() {
    return (IProject) this.projectList.get(this.currentItem++);
}

//
public void remove() {
    //
}
}
```

Boss

```
package com.cbf4life.pattern;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Boss {

    public static void main(String[] args) {
        //      List
        IProject project = new Project();

        //
        project.add("      dddd",10,100000);
        //
        project.add("      ",100,10000000);
        //
        project.add("      ",10000,1000000000);

        //      100
        for(int i=4;i<104;i++){
            project.add("      "+i+"      ",i*5,i*1000000);
        }
    }
}
```



```

//      ArrayList
IProjectIterator projectIterator = project.iterator();
while(projectIterator.hasNext()){
    IProject p = (IProject)projectIterator.next();
    System.out.println(p.getProjectInfo());
}
}
}

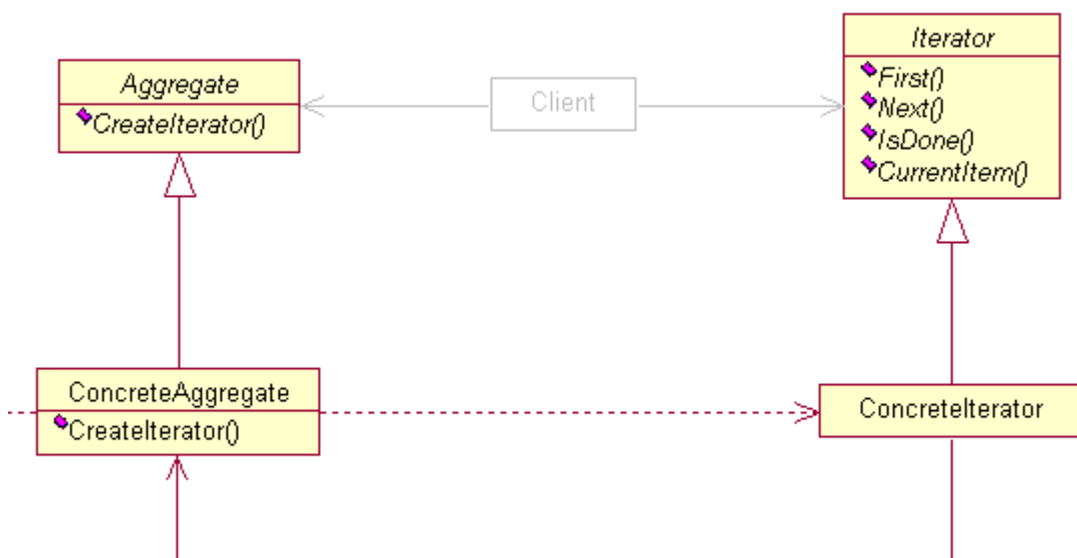
```

```

: 10      100000
: 100     10000000
: 10000   1000000000
4 : 20     4000000
5 : 25     5000000
.
.
.

```

project.add()



JDK 1.2

java.util.Iterator

Iterator

(Collection)

JDK 1.5 API

java.util.Iterable

java.lang

接口 Iterable<T>

所有已知子接口:

[BeanContext](#), [BeanContextServices](#), [BlockingQueue<E>](#), [Collection<E>](#), [List<E>](#), [Queue<E>](#), [Set<E>](#), [SortedSet<E>](#)

所有已知实现类:

[AbstractCollection](#), [AbstractList](#), [AbstractQueue](#), [AbstractSequentialList](#), [AbstractSet](#), [ArrayBlockingQueue](#), [ArrayList](#), [AttributeList](#), [BeanContextServicesSupport](#), [BeanContextSupport](#), [ConcurrentLinkedQueue](#), [CopyOnWriteArrayList](#), [CopyOnWriteArraySet](#), [DelayQueue](#), [EnumSet](#), [HashSet](#), [JobStateReasons](#), [LinkedBlockingQueue](#), [LinkedHashSet](#), [LinkedList](#), [PriorityBlockingQueue](#), [PriorityQueue](#), [RoleList](#), [RoleUnresolvedList](#), [Stack](#), [SynchronousQueue](#), [TreeSet](#), [Vector](#)

java.util.Iterable

iterator()

iterator()

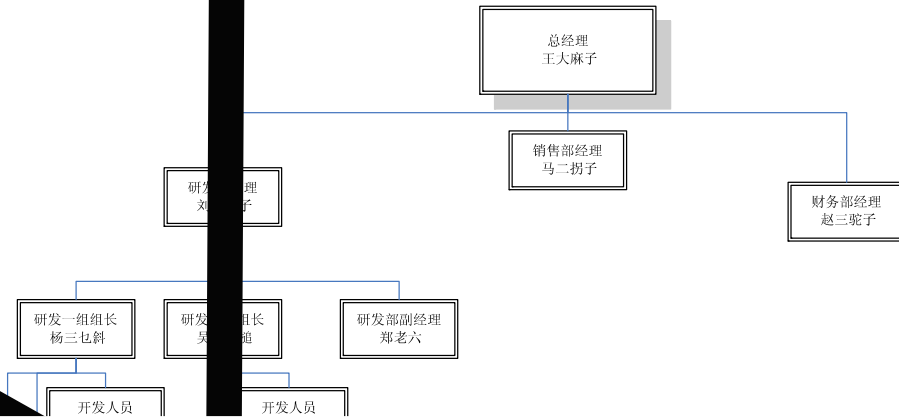
Iterator

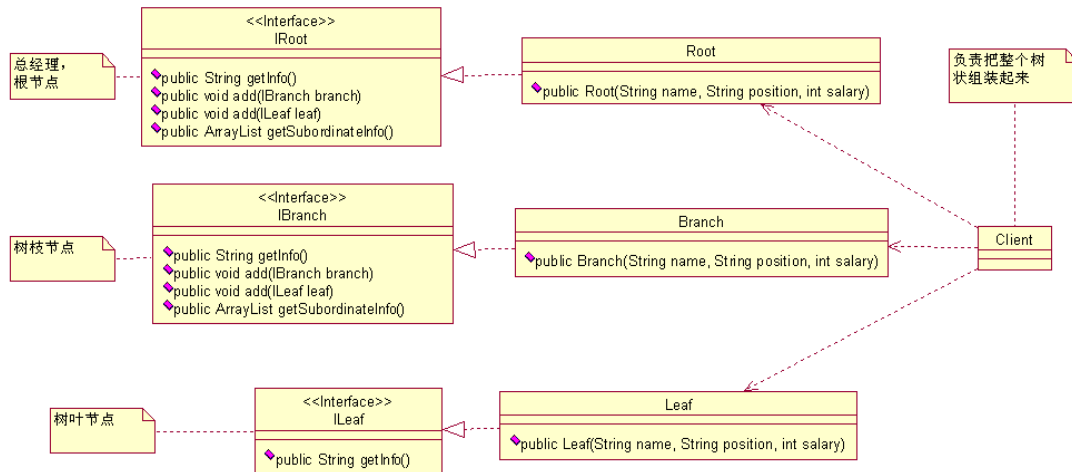
Java

List

Map

Composite Pattern





```
package com.cbf4life.common;
```

```
import java.util.ArrayList;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public interface IRoot {
```

```
    //
```

```
    public String getInfo();
```

```
    //
```

```
    public void add(IBranch branch);
```

```
    //
```

```
    public void add(ILeaf leaf);
```

```
    //
```

```
    public ArrayList getSubordinateInfo();
```

```
}
```

```
package com.cbf4life.common;

import java.util.ArrayList;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
@SuppressWarnings("all")
public class Root implements IRoot {
    // Subordinate
    private ArrayList subordinateList = new ArrayList();
    //
    private String name = "";
    //
    private String position = "";
    //
    private int salary = 0;

    //
    public Root(String name,String position,int salary){
        this.name = name;
        this.position = position;
        this.salary = salary;
    }

    //
    public void add(IBranch branch) {
        this.subordinateList.add(branch);
    }

    //
    public void add(ILeaf leaf) {
        this.subordinateList.add(leaf);
    }

    //
    public String getInfo() {
        String info = "";
        info = "      "+ this.name;;
    }
}
```

```

        info = info + "\t      " + this.position;
        info = info + "\t      : " + this.salary;
        return info;
    }

    //
    public ArrayList getSubordinateInfo() {
        return this.subordinateList;
    }
}
.

```

```

=6fUoVW" ^Uj U.
.

```

```

package com.cbf4life.common;

import java.util.ArrayList;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public interface IBranch {

    //
    public String getInfo();

    //
    public void add(IBranch branch);

    //
    public void add(ILeaf leaf);

    //
    public ArrayList getSubordinateInfo();
}
.

```

```
package com.cbf4life.common;

import java.util.ArrayList;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
@SuppressWarnings("all")
public class Branch implements IBranch {
    //
    private ArrayList subordinateList = new ArrayList();

    //
    private String name="";
    //
    private String position = "";
    //
    private int salary = 0;

    //
    public Branch(String name,String position,int salary){
        this.name = name;
        this.position = position;
        this.salary = salary;
    }

    //
    public void add(IBranch branch) {
        this.subordinateList.add(branch);
    }

    //
    public void add(ILeaf leaf) {
        this.subordinateList.add(leaf);
    }

    //
    public String getInfo() {
        String info = "";
        info = "      " + this.name;
        info = info + "\t      "+ this.position;
        info = info + "\t      "+this.salary;
    }
}
```

```
        return info;
    }

    //
    public ArrayList getSubordinateInfo() {
        return this.subordinateList;
    }
}
```

```
package com.cbf4life.common;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public interface ILeaf {

    //
    public String getInfo();

}
```

```
package com.cbf4life.common;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
@SuppressWarnings("all")
public class Leaf implements ILeaf {

    //
    private String name = "";
    //
    private String position = "";
    //
    private int salary=0;

}
```

```
//
public Leaf(String name,String position,int salary){
    this.name = name;
    this.position = position;
    this.salary = salary;
}
//
public String getInfo() {
    String info = "";
    info = "    " + this.name;
    info = info + "\t    "+ this.position;
    info = info + "\t    "+this.salary;
    return info;
}
}
```

7]Ybh" ^Uj U

```
package com.cbf4life.common;
```

```
import java.util.ArrayList;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com cbf4Life
```

```
IBranch secondDevGroup = new Branch("    ", "    ", 6000);

//
ILeaf a = new Leaf("a", "    ", 2000);
ILeaf b = new Leaf("b", "    ", 2000);
ILeaf c = new Leaf("c", "    ", 2000);
ILeaf d = new Leaf("d", "    ", 2000);
ILeaf e = new Leaf("e", "    ", 2000);
ILeaf f = new Leaf("f", "    ", 2000);
ILeaf g = new Leaf("g", "    ", 2000);
ILeaf h = new Leaf("h", "    ", 5000);
ILeaf i = new Leaf("i", "    ", 4000);
ILeaf j = new Leaf("j", "    ", 5000);
ILeaf k = new Leaf("k", "CEO", 8000);
ILeaf zhengLaoLiu = new Leaf("    ", "    ", 20000);

//
//
ceo.add(developDep);
ceo.add(salesDep);
ceo.add(financeDep);
//
ceo.add(k);

//
developDep.add(firstDevGroup);
developDep.add(secondDevGroup);
//
developDep.add(zhengLaoLiu);

//
firstDevGroup.add(a);
firstDevGroup.add(b);
firstDevGroup.add(c);
secondDevGroup.add(d);
secondDevGroup.add(e);
secondDevGroup.add(f);

//
salesDep.add(h);
salesDep.add(i);

//
financeDep.add(j);
```

```

//
System.out.println(ceo.getInfo());

//
getAllSubordinateInfo(ceo.getSubordinateInfo());

}

//
private static void getAllSubordinateInfo(ArrayList subordinateList){
    int length = subordinateList.size();
    for(int m=0;m<length;m++){ //      ArrayList      for
        Object s = subordinateList.get(m);
        if(s instanceof Leaf){ //
            ILeaf employee = (ILeaf)s;
            System.out.println(((Leaf) s).getInfo());
        }else{
            IBranch branch = (IBranch)s;
            System.out.println(branch.getInfo());
            //
            getAllSubordinateInfo(branch.getSubordinateInfo());
        }
    }
}
}
}
.

```

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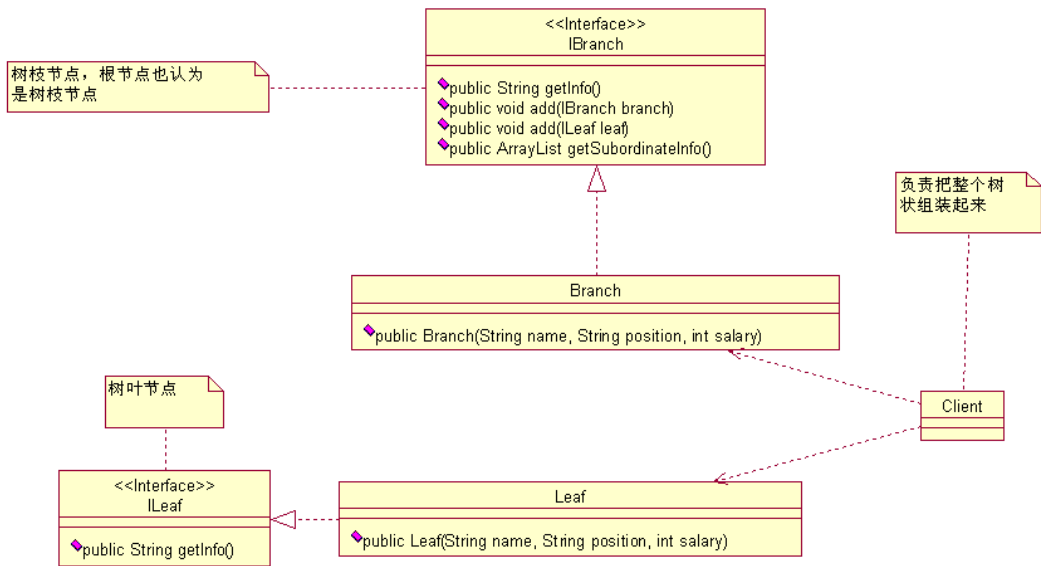
		20000
h		5000
i		4000
		30000
j		5000
k	CEO	8000

[Yh=bZc

Fcch 6f UbVX

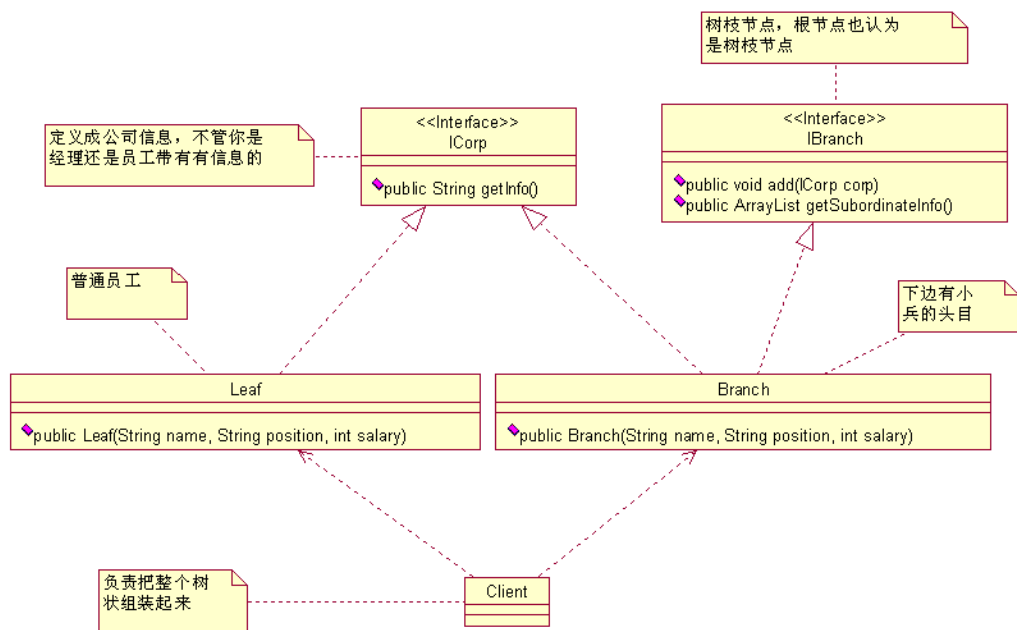
3

=6f UbVX =Fcch



=@UZ =6f UbVX

[Yh=bZc



=7cfd

=6fUbVX

=7cfd" ^Uj U

A

```
* Leaf
*/
@SuppressWarnings("all")
public class Leaf implements ICorp {
    //
    private String name = "";
    //
    private String position = "";
    //
    private int salary = 0;

    //
    public Leaf(String name,String position,int salary){
        this.name = name;
        this.position = position;
        this.salary = salary;
    }

    //
    public String getInfo() {
        String info = "";
        info = "      " + this.name;
        info = info + "\t      " + this.position;
        info = info + "\t      " + this.salary;
        return info;
    }
}
.
```

```
package com.cbf4life.advance;
```

```
import java.util.ArrayList;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public interface IBranch {
```

```
//      (  
public void addSubordinate(ICorp corp);  
  
//  
public ArrayList<ICorp> getSubordinate();  
  
/*      delSubordinate(ICorp corp)  
*  
*/  
  
}  
.  
  
.  
  
package com.cbf4life.advance;  
  
import java.util.ArrayList;  
  
/**  
* @author cbf4Life cbf4life@126.com  
* I'm glad to share my knowledge with you all.  
*  
*/  
@SuppressWarnings("all")  
public class Branch implements IBranch, ICorp {  
    //  
    private String name = "";  
    //  
    private String position = "";  
    //  
    private int salary = 0;  
    //  
    ArrayList<ICorp> subordinateList = new ArrayList<ICorp>();  
  
    //  
    public Branch(String name,String position,int salary){  
        this.name = name;  
        this.position = position;  
        this.salary = salary;  
    }  
  
    //
```

```

    public void addSubordinate(ICorp corp) {
        this.subordinateList.add(corp);
    }

    //
    public ArrayList<ICorp> getSubordinate() {
        return this.subordinateList;
    }

    //
    public String getInfo() {
        String info = "";
        info = "      " + this.name;
        info = info + "\t      " + this.position;
        info = info + "\t      " + this.salary;
        return info;
    }
}

```

7]Ybh" ^Uj U

```

package com.cbf4life.advance;

import java.util.ArrayList;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
@SuppressWarnings("all")
public class Client {

    public static void main(String[] args) {
        //
        Branch ceo = compositeCorpTree();

        //      CEO
        System.out.println(ceo.getInfo());

        //
        System.out.println(getTreeInfo(ceo));
    }
}

```

```

}

//
public static Branch compositeCorpTree(){
    //          CEO
    Branch root = new Branch("      ", "      ", 100000);
    //
    Branch developDep = new Branch("      ", "      ", 10000);
    Branch salesDep = new Branch("      ", "      ", 20000);
    Branch financeDep = new Branch("      ", "      ", 30000);

    //
    Branch firstDevGroup = new Branch("      ", "      ", 5000);
    Branch secondDevGroup = new Branch("      ", "      ", 6000);

    //
    Leaf a = new Leaf("a", "      ", 2000);
    Leaf b = new Leaf("b", "      ", 2000);
    Leaf c = new Leaf("c", "      ", 2000);
    Leaf d = new Leaf("d", "      ", 2000);
    Leaf e = new Leaf("e", "      ", 2000);
    Leaf f = new Leaf("f", "      ", 2000);
    Leaf g = new Leaf("g", "      ", 2000);
    Leaf h = new Leaf("h", "      ", 5000);
    Leaf i = new Leaf("i", "      ", 4000);
    Leaf j = new Leaf("j", "      ", 5000);
    Leaf k = new Leaf("k", "CEO      ", 8000);
    Leaf zhengLaoLiu = new Leaf("      ", "      ", 20000);

    //
    //CEO
    root.addSubordinate(k);
    root.addSubordinate(developDep);
    root.addSubordinate(salesDep);
    root.addSubordinate(financeDep);

    //
    developDep.addSubordinate(zhengLaoLiu);
    developDep.addSubordinate(firstDevGroup);
    developDep.addSubordinate(secondDevGroup);

```

```

//
firstDevGroup.addSubordinate(a);
firstDevGroup.addSubordinate(b);
firstDevGroup.addSubordinate(c);
secondDevGroup.addSubordinate(d);
secondDevGroup.addSubordinate(e);
secondDevGroup.addSubordinate(f);

//
salesDep.addSubordinate(h);
salesDep.addSubordinate(i);

//
financeDep.addSubordinate(j);

return root;
}

//
,
public static String getTreeInfo(Branch root){
    ArrayList<ICorp> subordinateList = root.getSubordinate();
    String info = "";
    for(ICorp s :subordinateList){
        if(s instanceof Leaf){ //
            info = info + s.getInfo()+"\n";
        }else{ //
            info = info + s.getInfo() + "\n" + getTreeInfo((Branch)s);
        }
    }

    return info;
}
}
.

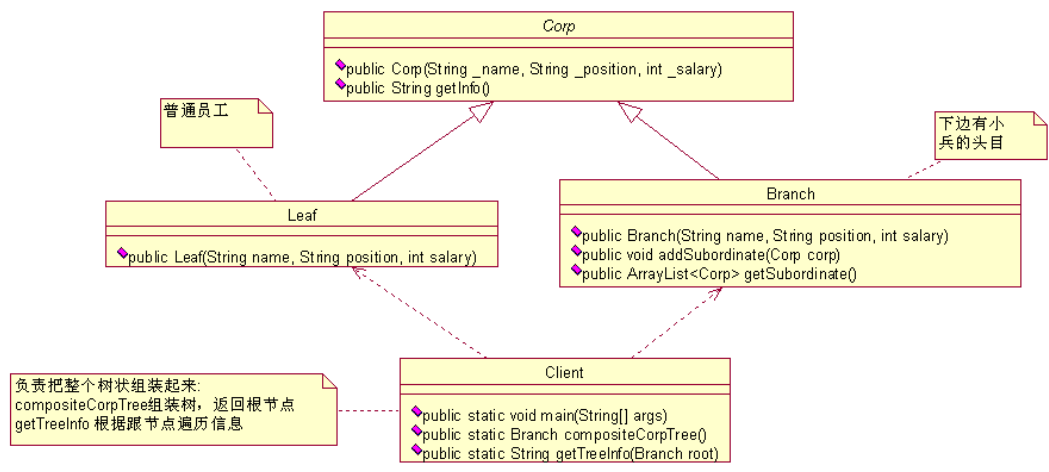
```

			100000
k	CEO	8000	
			10000
			20000
			5000
a		2000	

b	2000	
c	2000	
		6000
d	2000	
e	2000	
f	2000	
		20000
h	5000	
i	4000	
		30000
j	5000	

@YUZ 6fUbVX

[Yh=bZc



=6fUbVX

```

package com.cbf4life.perfect;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
@SuppressWarnings("all")
public abstract class Corp {
    //
  
```

```
private String name = "";
//
private String position = "";
//
private int salary =0;

/*
 *
 */
public Corp(String _name,String _position,int _salary){
    this.name = _name;
    this.position = _position;
    this.salary = _salary;
}

//
public String getInfo(){
    String info = "";
    info = "      " + this.name;
    info = info + "\t      " + this.position;
    info = info + "\t      " + this.salary;
    return info;
}
}
.
.

package com.cbf4life.perfect;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Leaf extends Corp {

    //
    public Leaf(String _name,String _position,int _salary){
        super(_name,_position,_salary);
    }
}
.
.
```

```

package com.cbf4life.perfect;

import java.util.ArrayList;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Branch extends Corp {
    //
    ArrayList<Corp> subordinateList = new ArrayList<Corp>();

    //
    public Branch(String _name,String _position,int _salary){
        super(_name,_position,_salary);
    }

    //
    public void addSubordinate(Corp corp) {
        this.subordinateList.add(corp);
    }

    //
    public ArrayList<Corp> getSubordinate() {
        return this.subordinateList;
    }
}

```

7]Ybh" ^Uj U

```

package com.cbf4life.perfect;

import java.util.ArrayList;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *

```

```

*/
@SuppressWarnings("all")
public class Client {

    public static void main(String[] args) {
        //
        Branch ceo = compositeCorpTree();

        //      CEO
        System.out.println(ceo.getInfo());

        //
        System.out.println(getTreeInfo(ceo));
    }

    //
    public static Branch compositeCorpTree(){
        //          CEO
        Branch root = new Branch("      ", "      ",100000);
        //
        Branch developDep = new Branch("      ", "      ",10000);
        Branch salesDep = new Branch("      ", "      ",20000);
        Branch financeDep = new Branch("      ", "      ",30000);

        //
        Branch firstDevGroup = new Branch("      ", "      ",5000);
        Branch secondDevGroup = new Branch("      ", "      ",6000);

        //
        Leaf a = new Leaf("a", "      ",2000);
        Leaf b = new Leaf("b", "      ",2000);
        Leaf c = new Leaf("c", "      ",2000);
        Leaf d = new Leaf("d", "      ",2000);
        Leaf e = new Leaf("e", "      ",2000);
        Leaf f = new Leaf("f", "      ",2000);
        Leaf g = new Leaf("g", "      ",2000);
        Leaf h = new Leaf("h", "      ",5000);
        Leaf i = new Leaf("i", "      ",4000);
        Leaf j = new Leaf("j", "      ",5000);
        Leaf k = new Leaf("k", "CEO      ",8000);
        Leaf zhengLaoLiu = new Leaf("      ", "      ",20000);

        //
        //CEO

```

```
root.addSubordinate(k);
root.addSubordinate(developDep);
root.addSubordinate(salesDep);
root.addSubordinate(financeDep);

//
developDep.addSubordinate(zhengLaoLiu);
developDep.addSubordinate(firstDevGroup);
developDep.addSubordinate(secondDevGroup);

//
firstDevGroup.addSubordinate(a);
firstDevGroup.addSubordinate(b);
firstDevGroup.addSubordinate(c);
secondDevGroup.addSubordinate(d);
secondDevGroup.addSubordinate(e);
secondDevGroup.addSubordinate(f);

//
salesDep.addSubordinate(h);
salesDep.addSubordinate(i);

//
financeDep.addSubordinate(j);

return root;
}

//
,
public static String getTreeInfo(Branch root){
    ArrayList<Corp> subordinateList = root.getSubordinate();
    String info = "";
    for(Corp s :subordinateList){
        if(s instanceof Leaf){ //
            info = info + s.getInfo()+"\n";
        }else{ //
            info = info + s.getInfo() +"\n"+ getTreeInfo((Branch)s);
        }
    }
}

return info;
```

}

}

=7cfd

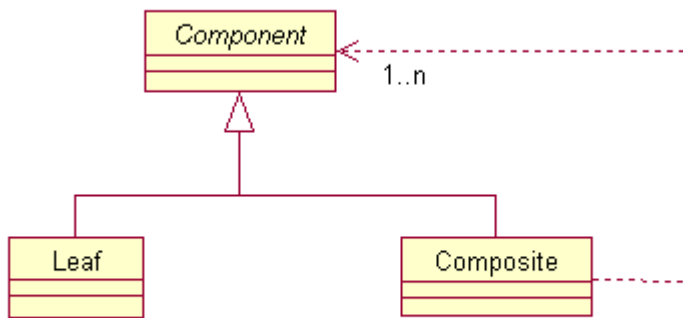
7cfd

		100000	
k	CEO	8000	
			10000
			20000
			5000
a		2000	
b		2000	
c		2000	
			6000
d		2000	
e		2000	
f		2000	
			20000
h		5000	
i		4000	
			30000
j		5000	

*	a	5		developed
+	b	6		Developed

Zcf

Dufh! K\c` Y

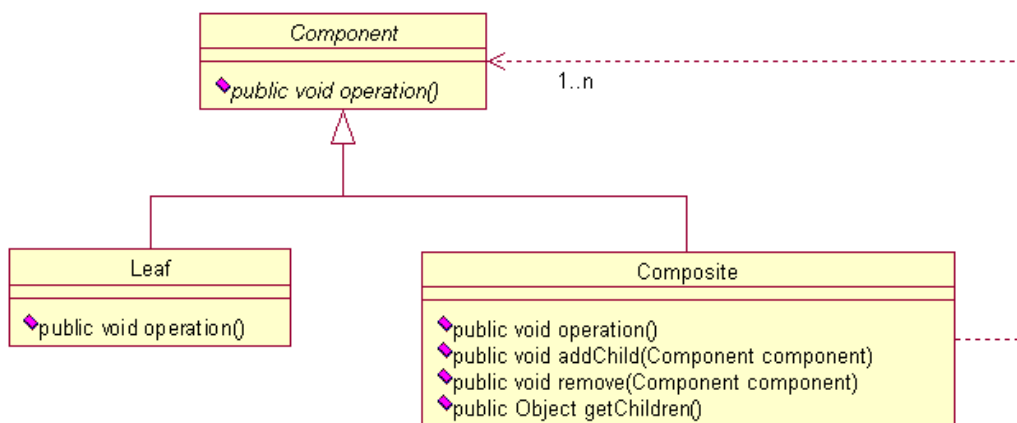
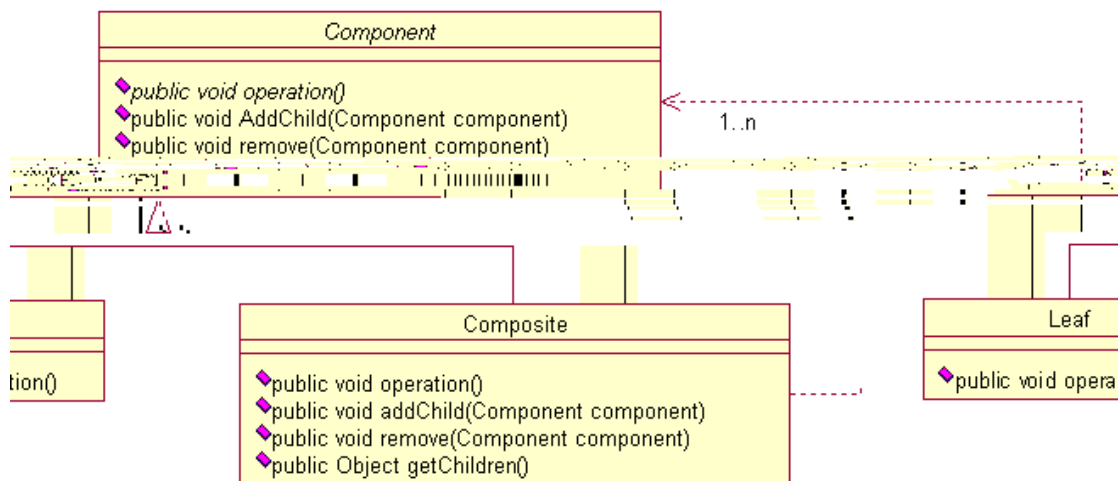


f17cadcbYbht

[Yh=bZc

@UZ

7cadcg] hY



UXXfLžfYacj YfL

[Yh7\]`XfYb

[Yh7\]`XfYb

=hYfUW`Y

>8?

[Yh7\]`XfYb

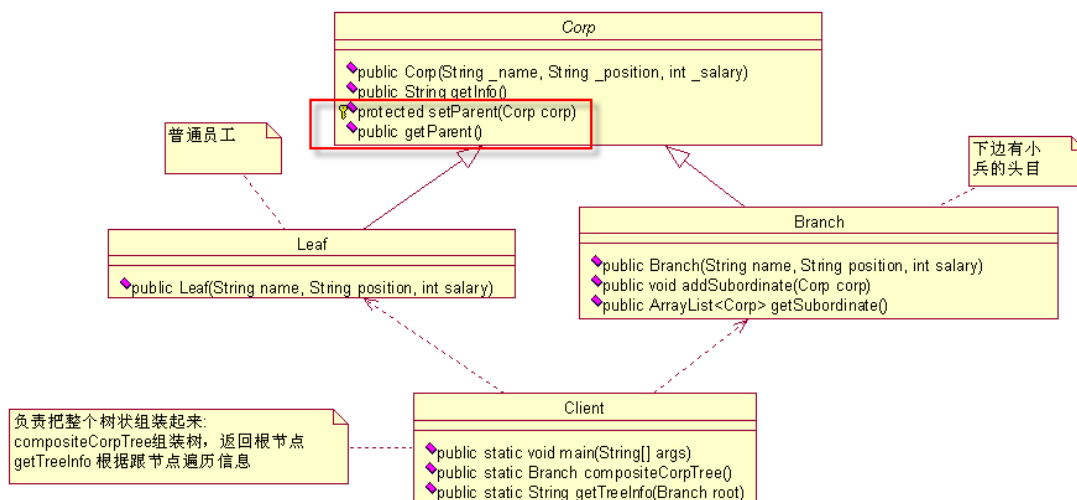
7]Ybh" ^Uj U

```

Branch developDep = new Branch("      ", "      ", 10000);
...
Leaf g = new Leaf("g", "      ", 2000);

```

@[c
>Uj UGW] dh



```
package com.cb4life.extend;
```

```
/**
```

```
* @author cbf4Life cbf4life@126.com
```

```
* I'm glad to share my knowledge with you all.
```

```

*
*/
@SuppressWarnings("all")
public abstract class Corp {
    //
    private String name = "";
    //
    private String position = "";
    //
    private int salary = 0;
    //
    private Corp parent = null;

    /*
    *
    */
    public Corp(String _name, String _position, int _salary){
        this.name = _name;
        this.position = _position;
        this.salary = _salary;
    }

    //
    public String getInfo(){
        String info = "";
        info = "      " + this.name;
        info = info + "\t      " + this.position;
        info = info + "\t      " + this.salary;
        return info;
    }

    //
    protected void setParent(Corp _parent){
        this.parent = _parent;
    }

    //
    public Corp getParent(){
        return this.parent;
    }
}

```

6fUbVX" ^f U

```
package com.cbf4life.extend;

import java.util.ArrayList;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Branch extends Corp {
    //
    ArrayList<Corp> subordinateList = new ArrayList<Corp>();

    //
    public Branch(String _name,String _position,int _salary){
        super(_name,_position,_salary);
    }

    //
    public void addSubordinate(Corp corp) {
        corp.setParent(this); //
        this.subordinateList.add(corp);
    }

    //
    public ArrayList<Corp> getSubordinate() {
        return this.subordinateList;
    }
}
```

7]Ybh

Z]bX

dUfYbh

&\$\$\$

```

*/
public interface IHanFeiZi {

    //
    public void haveBreakfast();

    //
    public void haveFun();
}

```

<Ub: Y] Nj " ^Uj U. '

```

package com.cbf4life.common;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class HanFeiZi implements IHanFeiZi{
    //
    private boolean isHaveBreakfast = false;
    //
    private boolean isHaveFun = false;

    //
    public void haveBreakfast(){
        System.out.println("      :      ...");
        this.isHaveBreakfast =true;
    }

    //
    public void haveFun(){
        System.out.println("      :      ...");
        this.isHaveFun = true;
    }

    //      bean      getter/setter
    public boolean isHaveBreakfast() {
        return isHaveBreakfast;
    }

    public void setHaveBreakfast(boolean isHaveBreakfast) {

```

```
        this.isHaveBreakfast = isHaveBreakfast;
    }

    public boolean isHaveFun() {
        return isHaveFun;
    }

    public void setHaveFun(boolean isHaveFun) {
        this.isHaveFun = isHaveFun;
    }
}
```

[YhhYf#gYhhYf

]g<Uj Y6fYU_ZUgh

]g<Uj Y: i b

```
package com.cbf4life.common;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public interface ILiSi {

    //
    public void update(String context);
}
```

```
package com.cbf4life.common;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
```

```
public class LiSi implements ILiSi{

    //
    public void update(String str){
        System.out.println("      :                               ...");
        this.reportToQiShiHuang(str);
        System.out.println("                               ...\\n");
    }

    //
    private void reportToQiShiHuang(String reportContext){
        System.out.println("                               ---->"+reportContext);
    }
}
```

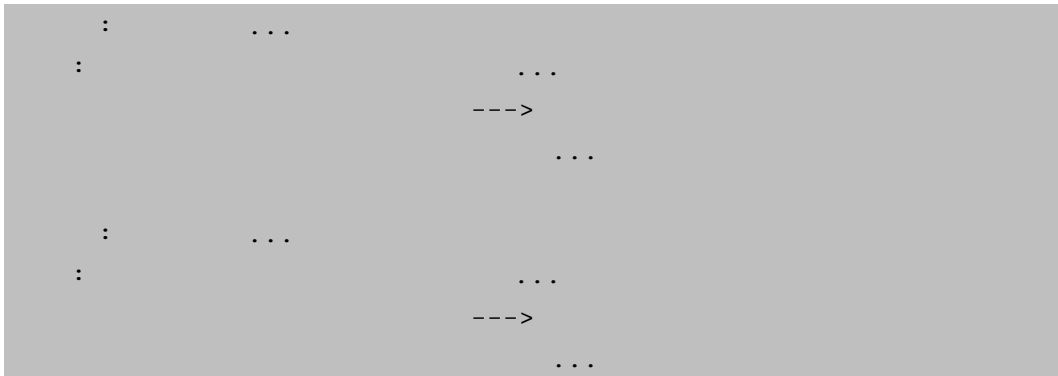
```
package com.cbf4life.common;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
class Watch extends Thread{
    private HanFeiZi hanFeiZi;
    private LiSi liSi;
    private String type;

    //
    public Watch(HanFeiZi _hanFeiZi,LiSi _liSi,String _type){
        this.hanFeiZi =_hanFeiZi;
        this.liSi = _liSi;
        this.type = _type;
    }

    @Override
    public void run(){
        while(true){
            if(this.type.equals("breakfast")){ //
```

```
//  
Thread.sleep(1000); //      1  
hanFeiZi.haveBreakfast();  
  
//  
Thread.sleep(1000);  
hanFeiZi.haveFun();  
}  
}
```



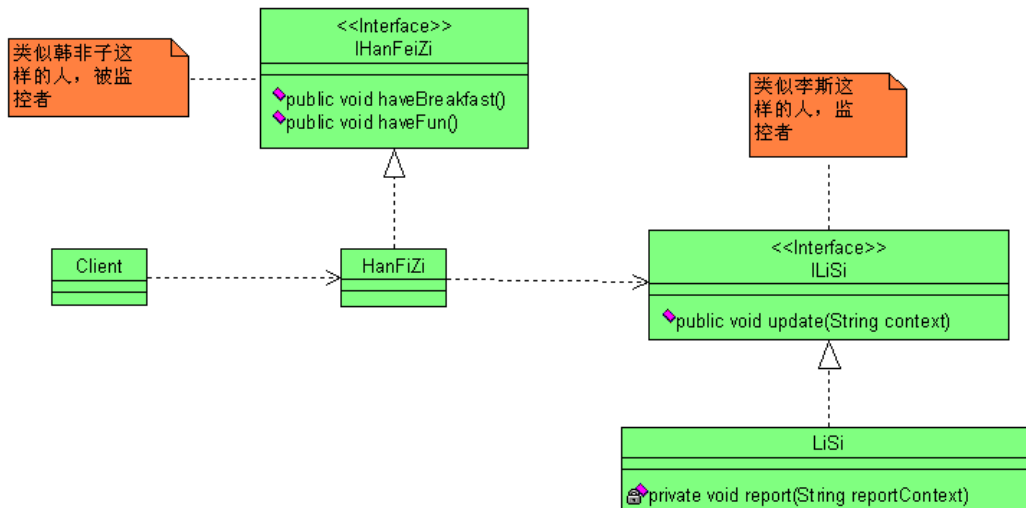
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fi b



类似韩非子这样的人，被监控者

类似李斯这样的人，监控者

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=] G]

=\Ub: Y] N]

<Ub: Y] N]

```
package com.cbf4life.advance;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public class HanFeiZi implements IHanFeiZi{
    //
    private ILiSi liSi =new LiSi();

    //
    public void haveBreakfast(){
        System.out.println("      :      ...");
        //
        this.liSi.update("      ");
    }

    //
    public void haveFun(){
        System.out.println("      :      ...");
        this.liSi.update("      ");
    }
}
}
```

<Ub: Y]N]

@G] "i dXUHyfIk

7]Ybh

```
package com.cbf4life.advance;

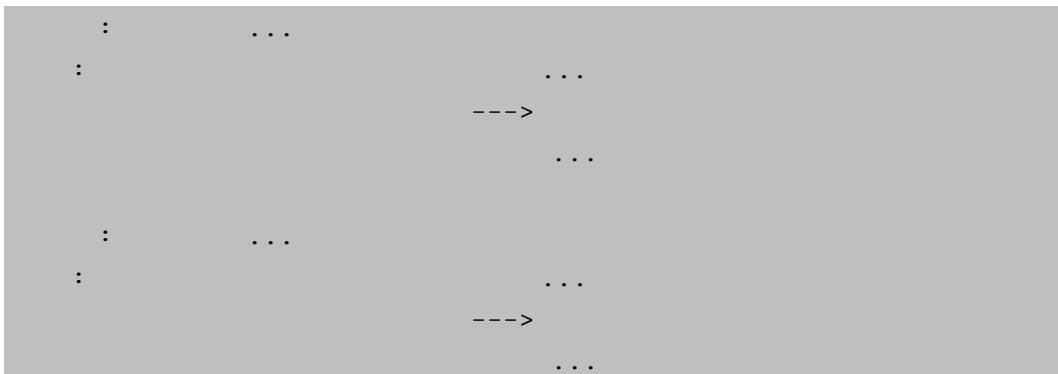
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 * Client
 */
public class Client {

    public static void main(String[] args) {
        //
        HanFeiZi hanFeiZi = new HanFeiZi();

        //
        hanFeiZi.haveBreakfast();

        //
        hanFeiZi.haveFun();
    }
}
```

7]Ybh



```
public void addObserver(Observer observer);

//      —
public void deleteObserver(Observer observer);

//      —
public void notifyObservers(String context);
}
```

```

        System.out.println("        :        ...");
        //
        this.notifyObservers("        ");
    }

    //
    public void haveFun(){
        System.out.println("        :        ...");
        this.notifyObservers("        ");
    }
}

```

CVgYfj Yf" ^Uj U .

```

package com.cbf4life.advance2;

```

```

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public interface Observer {

    //
    public void update(String context);
}

```

```

package com.cbf4life.advance2;

```

```

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class LiSi implements Observer{

    //
    public void update(String str){

```

```

        System.out.println("                ...");
        this.reportToQiShiHuang(str);
        System.out.println("                ...\n");
    }

    //
    private void reportToQiShiHuang(String reportContext){
        System.out.println("                ---->" +reportContext);
    }
}

```

```

package com.cbf4life.advance2;

```

```

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class WangSi implements Observer{

    //
    public void update(String str){
        System.out.println("                ...");
        this.cry(str);
        System.out.println("                ...\n");
    }

    //
    private void cry(String context){
        System.out.println("                "+context+" —                ");
    }
}

```

```

package com.cbf4life.advance2;

```

```

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */

```

```
 */
public class LiuSi implements Observer{

    //
    public void update(String str){
        System.out.println("                ...");
        this.happy(str);
        System.out.println("                \n");
    }

    //
    private void happy(String context){
        System.out.println("                "+context+",—" );
    }
}
```

```
package com.cbf4life.advance2;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 * Client
 */
```

```
public class Client {

    public static void main(String[] args) {
        //
        Observer liSi = new LiSi();
        Observer wangSi = new WangSi();
        Observer liuSi = new LiuSi();

        //
        HanFeiZi hanFeiZi = new HanFeiZi();

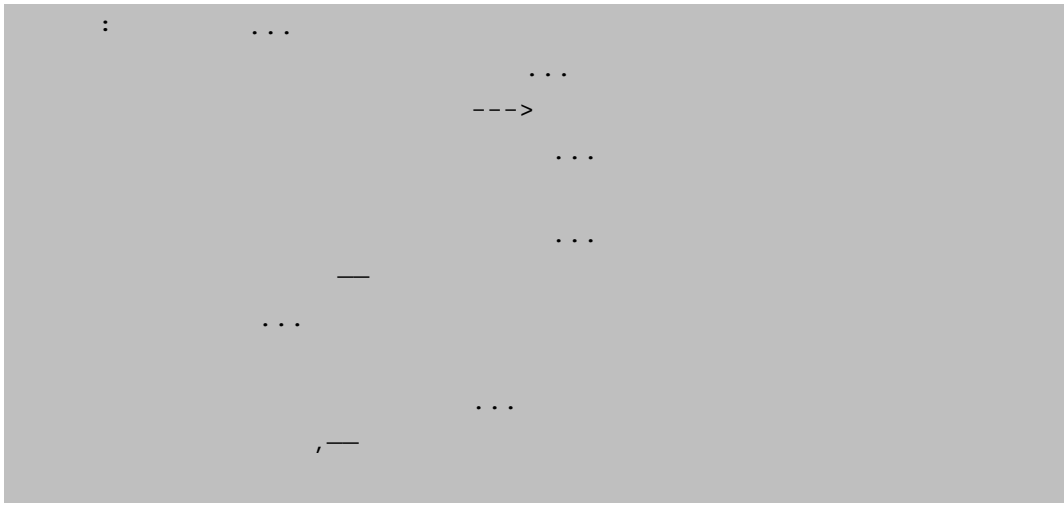
        //
        hanFeiZi.addObserver(liSi);
        hanFeiZi.addObserver(wangSi);
        hanFeiZi.addObserver(liuSi);

        //
        hanFeiZi.haveBreakfast();
    }
}
```

```

}
}

```



CVgYfj Yf

7 J Ybh

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<Ub: Y] N]

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CVgYfj UW Y

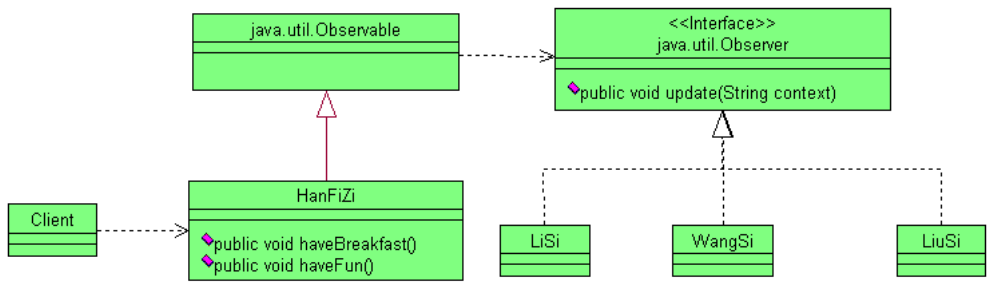
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CVgYfj UW Y

^Uj U' i h] ` " CVgYfj U Y



<Ub: Y] N]

```
package com.cbf4life.perfect;
```

```
import java.util.ArrayList;
```

```
import java.util.Observable;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class Observable {
```

```

*
*/
public class LiSi implements Observer{

    //
    public void update(Observable observable, Object obj){
        System.out.println("                ...");
        this.reportToQiShiHuang(obj.toString());
        System.out.println("                ...\\n");
    }

    //
    private void reportToQiShiHuang(String reportContext){
        System.out.println("                --->"+reportContext);
    }
}

```

^Uj U'i hj`" CVgYfj Yf i dXUHY žCVgYfj UV Y

```

package com.cbf4life.perfect;
import java.util.Observable;
import java.util.Observer;
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class WangSi implements Observer{

    //
    public void update(Observable observable, Object obj){
        System.out.println("                ...");
        this.cry(obj.toString());
        System.out.println("                ...\\n");
    }

    //
    private void cry(String context){
        System.out.println("                "+context+" — ");
    }
}

```

```

package com.cbf4life.perfect;

import java.util.Observable;
import java.util.Observer;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 *
 */
public class LiuSi implements Observer{

    //
    public void update(Observable observable, Object obj){
        System.out.println("                ...");
        this.happy(obj.toString());
        System.out.println("                \n");
    }

    //
    private void happy(String context){
        System.out.println("                " +context+" ,—                ");
    }
}

```

7]Ybh

```

package com.cbf4life.perfect;

import java.util.Observer;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 * Client
 */
public class Client {

    public static void main(String[] args) {
        //

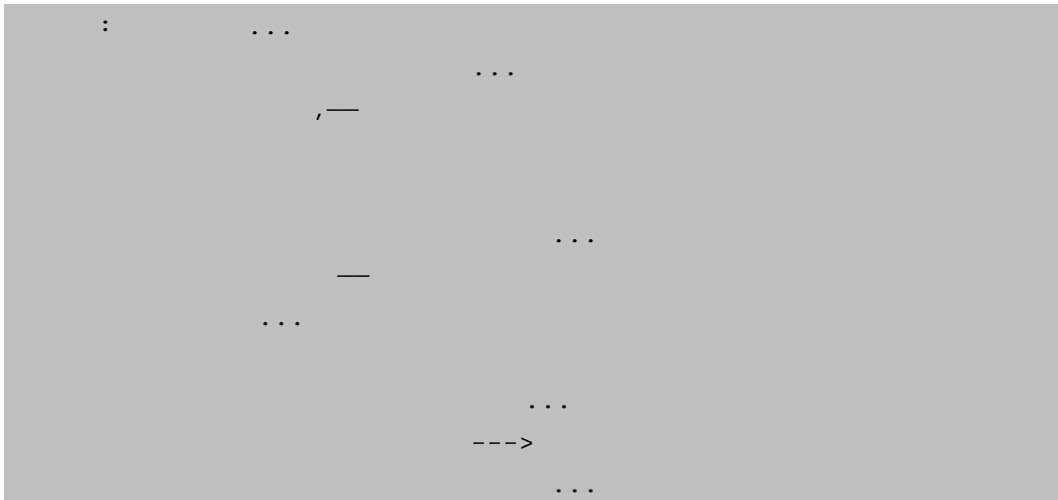
```

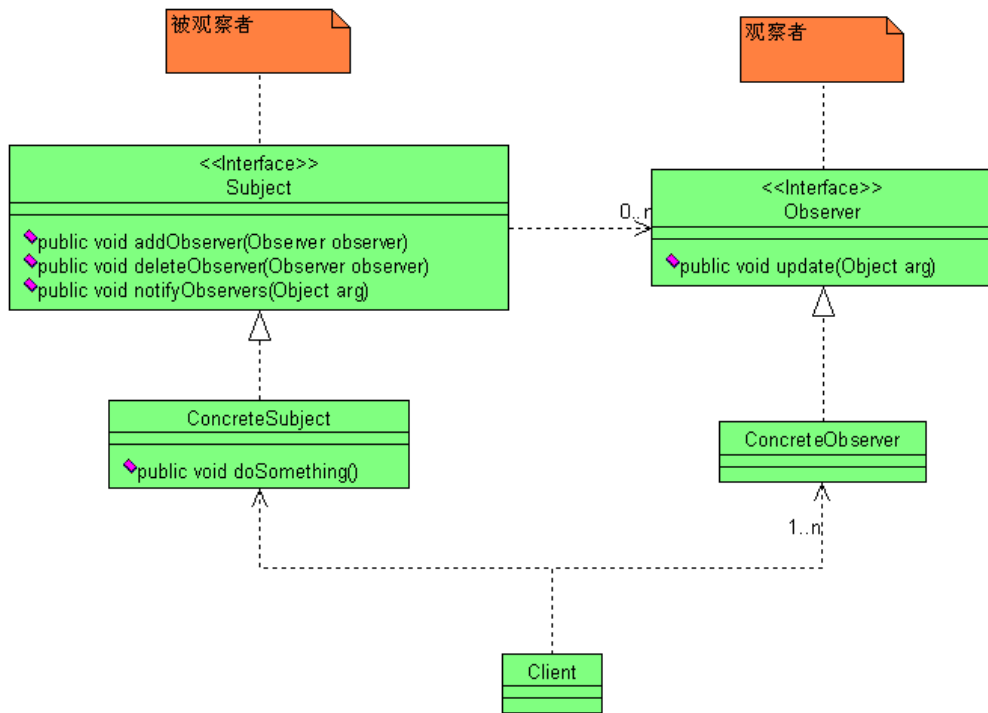
```
Observer liSi = new LiSi();
Observer wangSi = new WangSi();
Observer liuSi = new LiuSi();

//
HanFeiZi hanFeiZi = new HanFeiZi();

//
hanFeiZi.addObserver(liSi);
hanFeiZi.addObserver(wangSi);
hanFeiZi.addObserver(liuSi);

//
hanFeiZi.haveBreakfast();
}
}
```





被观察者

观察者

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#

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9>6

6YUb. GYgg] cb:6YUb 9bh] hmi

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AYggU[Y8f] j Yb' 6YUb

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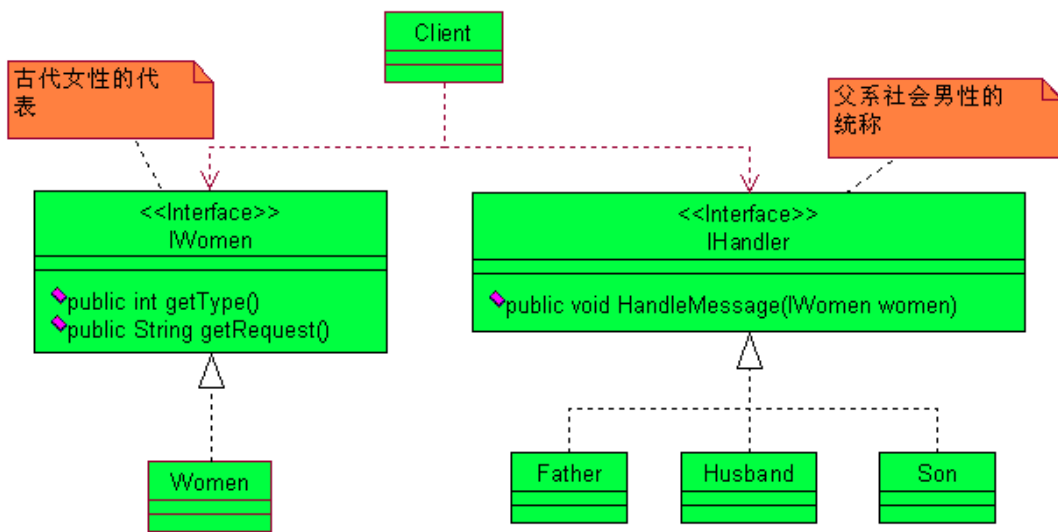
AYggU[Y' Ei Yi Y

7] Ybh

7 UggI h] `g

17

Chain of Responsibility Pattern



=KcaYb

```
package com.cbf4life.common;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public interface IWomen {

    //
    public int getType();

    //
    public String getRequest();
}
```

```
package com.cbf4life.common;
```

```
/**
 * @author cbf4Life cbf4life@126.com
```

```
* I'm glad to share my knowledge with you all.  
*  
*/
```

```
public class Women implements IWomen{  
    /*  
        *      int  
        * 1---  
        * 2---  
        * 3---  
        */  
    private int type=0;  
  
    //  
    private String request = "";  
  
    //  
    public Women(int _type,String _request){  
        this.type = _type;  
        this.request = _request;  
    }  
  
    //  
    public int getType(){  
        return this.type;  
    }  
  
    //  
    public String getRequest(){  
        return this.request;  
    }  
}
```

% &

```
package com.cbf4life.common;
```

```
/**  
 * @author cbf4Life cbf4life@126.com  
 * I'm glad to share my knowledge with you all.  
 *                               handler  
 */
```

```

public interface IHandler {

    //
    public void HandleMessage(IWomen women);

}

.

=<UbX Yf

.

package com.cbf4life.common;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Father implements IHandler {

    //
    public void HandleMessage(IWomen women) {
        System.out.println("          "+women.getRequest());
        System.out.println("          :   ");
    }

}

.

package com.cbf4life.common;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Husband implements IHandler {

    //
    public void HandleMessage(IWomen women) {
        System.out.println("          "+women.getRequest());
        System.out.println("          ");
    }

}

```

```
package com.cbf4life.common;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class Son implements IHandler {
```

```
    //
```

```
    public void HandleMessage(IWomen women) {
```

```
        System.out.println("                "+women.getRequest());
```

```
        System.out.println("                ");
```

```
    }
```

```
}
```

7]Ybh

```
package com.cbf4life.common;
```

```
import java.util.ArrayList;
```

```
import java.util.Random;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
@SuppressWarnings("all")
```

```
public class Client {
```

```
    public static void main(String[] args) {
```

```
        //
```

```
        Random rand = new Random();
```

```
        ArrayList<IWomen> arrayList = new ArrayList();
```

```
        for(int i=0;i<5;i++){
```

```
            arrayList.add(new Women(rand.nextInt(4), "                "));
```

```
        }
```

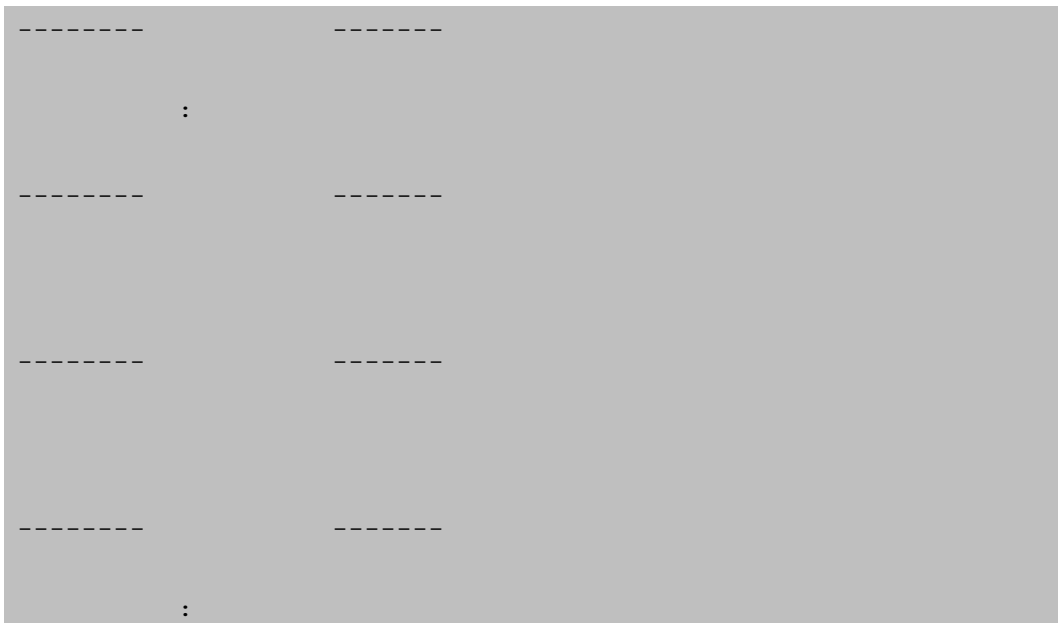
```

//
IHandler father = new Father();
IHandler husband = new Husband();
IHandler son = new Son();

for(IWomen women:arrayList){
    if(women.getType() ==1){ //
        System.out.println("\n-----" );
        father.HandleMessage(women);
    }else if(women.getType() ==2){ //
        System.out.println("\n-----" );
        husband.HandleMessage(women);
    }else if(women.getType() == 3){ //
        System.out.println("\n-----" );
        son.HandleMessage(women);
    }else{
        //
    }
}
}
.

)

```



7]Ybh

7]Ybh

]Z...Y`Yg

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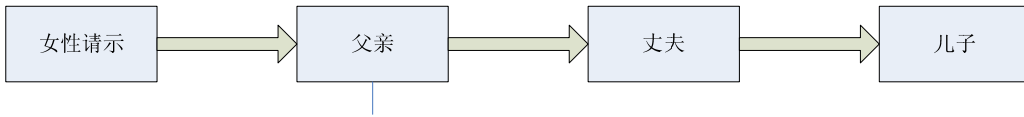
]Z...Y`gY

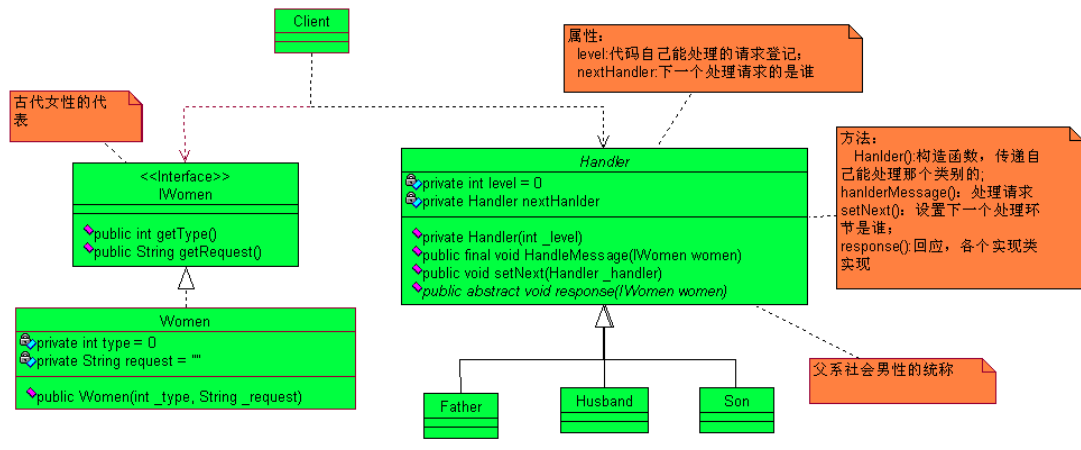
KcaYb hndY

=<UbX`Yf

=<Ub`XYf

7]Ybh





: Uh\Yf <i gVUbX Gcb
<Ub` XYf <Ub` XYf

```

package com.cbf4life.advance;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 * handler
 */
public abstract class Handler {
    //
    private int level = 0;

    //
    private Handler nextHanlder;

    //
    public Handler(int _level){
        this.level = _level;
    }

    //
    public final void HandleMessage(IWomen women){
        if(women.getType() == this.level){
            this.response(women);
        }else{
            if(this.nextHanlder != null){ //
                this.nextHanlder.HandleMessage(women);
            }else{ //
                System.out.println("-----\n");
            }
        }
    }
}

```

```

        }
    }
}

/*
 *
 *
 */
public void setNext(Handler _handler){
    this.nextHanlder = _handler;
}

//
public abstract void response(IWomen women);
}
.

```

fYgdcbyY

```

package com.cbf4life.advance;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Father extends Handler {
    //
    public Father(){
        super(1);
    }

    //
    @Override
    public void response(IWomen women) {
        System.out.println("-----");
        System.out.println(women.getRequest());
        System.out.println(" : \n");
    }
}

```

```
}  
.br/>  
package com.cbf4life.advance;  
  
/**  
 * @author cbf4Life cbf4life@126.com  
 * I'm glad to share my knowledge with you all.  
 *  
 */  
public class Husband extends Handler {  
    //  
    public Husband(){  
        super(2);  
    }  
  
    //  
    @Override  
    public void response(IWomen women) {  
        System.out.println("-----");  
        System.out.println(women.getRequest());  
        System.out.println(" \n");  
    }  
}
```

```
package com.cbf4life.advance;  
  
/**  
 * @author cbf4Life cbf4life@126.com  
 * I'm glad to share my knowledge with you all.  
 *  
 */  
public class Son extends Handler {  
    //  
    public Son(){  
        super(3);  
    }  
  
    //  
    public void response(IWomen women) {  
        System.out.println("-----");  
        System.out.println(women.getRequest());  
        System.out.println(" \n");  
    }  
}
```

```
}
```

```
.
```

```
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```

```
%
```

```
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```

```
&
```

```
KcaYb
```

```
package com.cbf4life.advance;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class Women implements IWomen{
```

```
    /*
```

```
     * int
```

```
     * 1---
```

```
     * 2---
```

```
     * 3---
```

```
     */
```

```
private int type=0;
```

```
//
```

```
private String request = "";
```

```
//
```

```
public Women(int _type,String _request){
```

```
    this.type = _type;
```

```
    //
```

```
    switch(this.type){
```

```
        case 1:
```

```
            this.request = "                " + _request;
```

```
            break;
```

```
        case 2:
```

```
            this.request = "                " + _request;
```

```
            break;
```

```
        case 3:
```

```
            this.request = "                " + _request;
```

```
    }  
}  
  
//  
public int getType(){  
    return this.type;  
}  
  
//  
public String getRequest(){  
    return this.request;  
}  
}
```

KcaYb

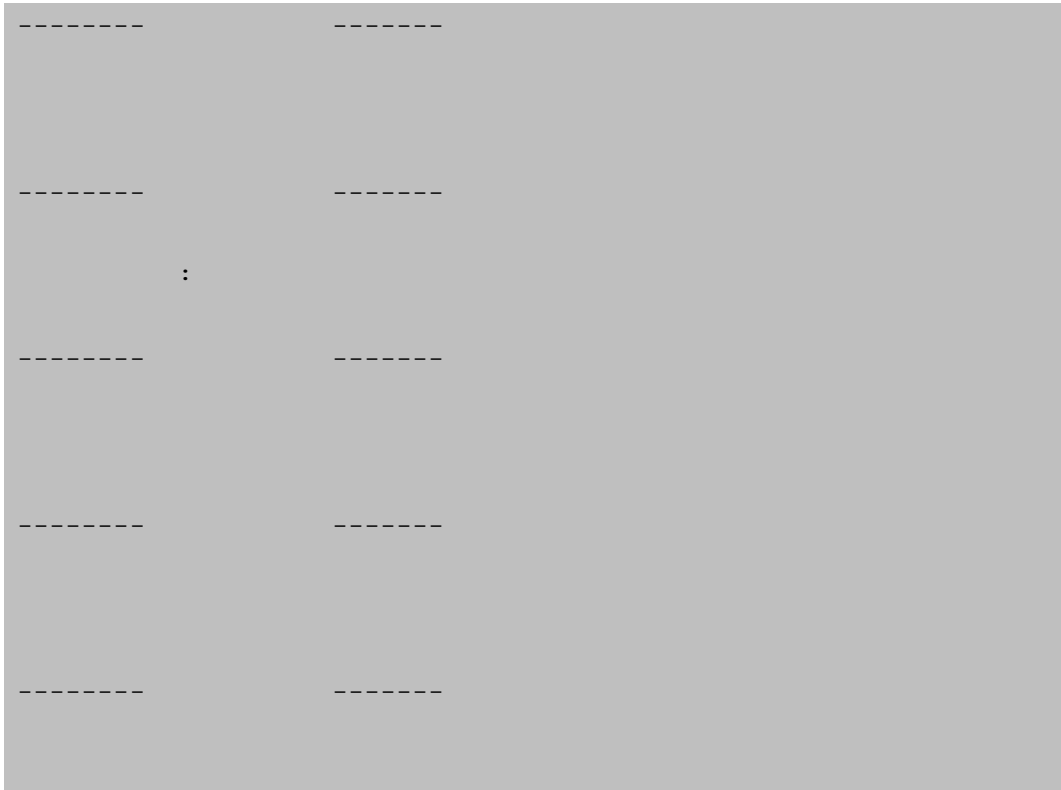
7]Ybh

```
package com.cbf4life.advance;  
  
import java.util.ArrayList;  
import java.util.Random;  
  
/**  
 * @author cbf4Life cbf4life@126.com  
 * I'm glad to share my knowledge with you all.  
 *  
 */  
@SuppressWarnings("all")  
public class Client {  
  
    public static void main(String[] args) {  
        //  
        Random rand = new Random();  
        ArrayList<IWomen> arrayList = new ArrayList();  
        for(int i=0;i<5;i++){  
            arrayList.add(new Women(rand.nextInt(4), "    "));  
        }  
  
        //  
        Handler father = new Father();  
        Handler husband = new Husband();  
        Handler son = new Son();
```

```
//
father.setNext(husband);
husband.setNext(son);

for(IWomen women:arrayList){
    father.HandleMessage(women);
}
}
}
```

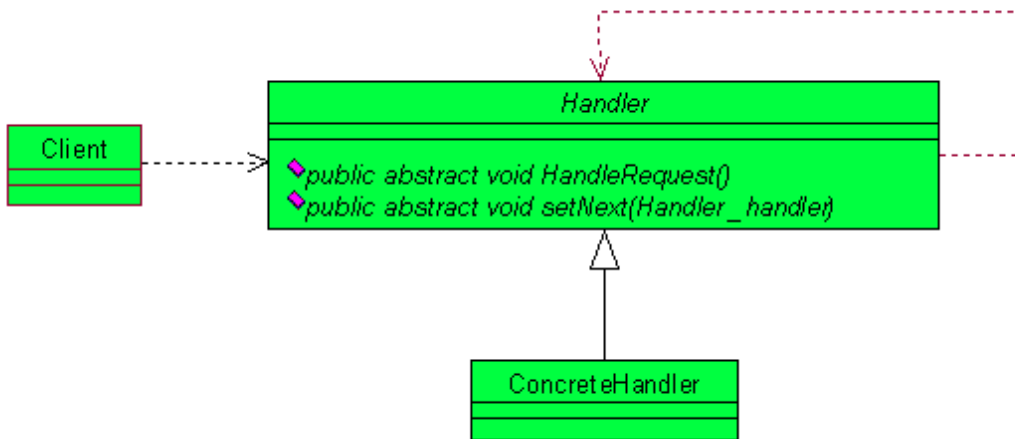
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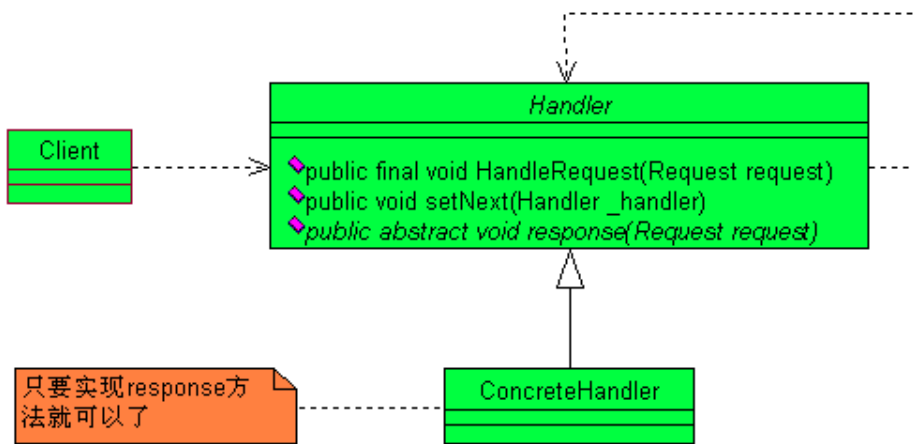
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hc'\UbX'Y'h\Y'fYei Ygh" '7\U]b'h\Y'fYVW]j] b['cV^YVh'g'UbX'dUgg'h\Y'fYei Ygh'U'cb['h\Y'VWU]b'i bh]'`
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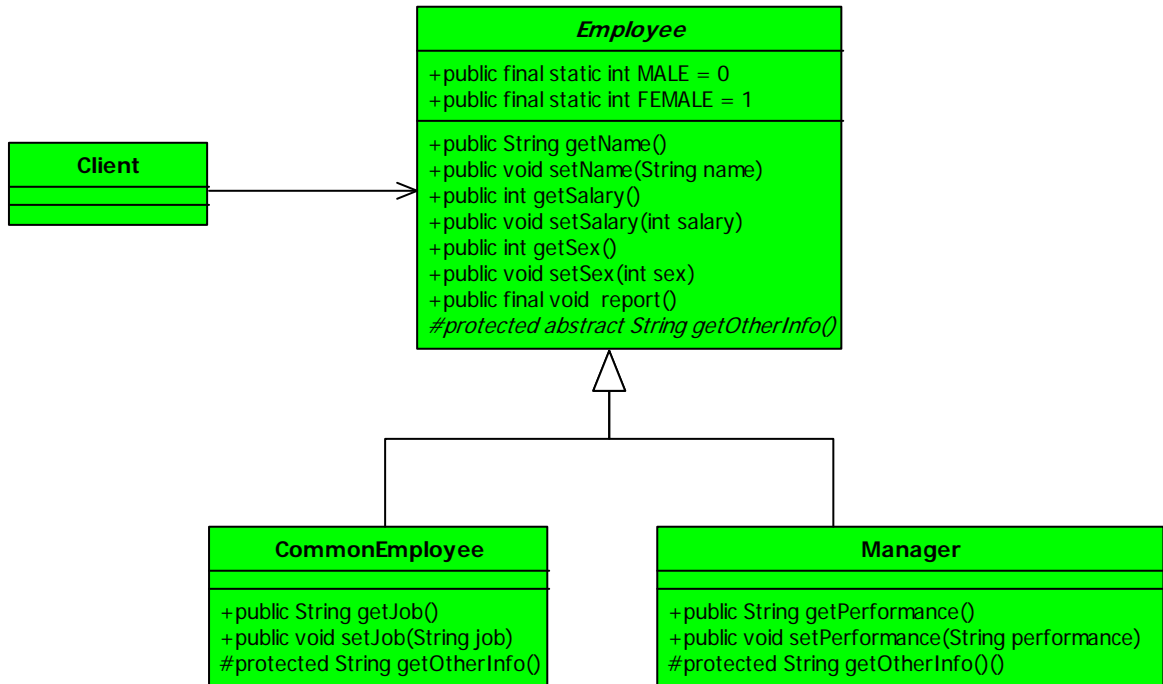
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J=D



```
package com.cbf4life.common;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
*/
public abstract class Employee {
    public final static int MALE = 0; //0
    public final static int FEMALE = 1; //1
    //
    private String name;

    //
    private int salary;

    //
    private int sex;

    //          getter/setter
    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public int getSalary() {
        return salary;
    }

    public void setSalary(int salary) {
        this.salary = salary;
    }

    public int getSex() {
        return sex;
    }

    public void setSex(int sex) {
        this.sex = sex;
    }

    //
    public final void report(){
        String info = "          " + this.name + "\t";
        info = info + "          " + (this.sex == FEMALE? "FEMALE" : "MALE") + "\t";
        info = info + "          " + this.salary + "\t";
    }
}
```

```
        //
        info = info + this.getOtherInfo();
        System.out.println(info);
    }

    //
    protected abstract String getOtherInfo();
}
.
.
.

package com.cbf4life.common;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class CommonEmployee extends Employee {

    //
    private String job;

    public String getJob() {
        return job;
    }

    public void setJob(String job) {
        this.job = job;
    }

    protected String getOtherInfo(){
        return "        " + this.job + "\t";
    }
}
.
.
.
```

```

package com.cbf4life.common;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Manager extends Employee {

    //
    private String performance;

    public String getPerformance() {
        return performance;
    }

    public void setPerformance(String performance) {
        this.performance = performance;
    }

    protected String getOtherInfo(){
        return "      " + this.performance + "\t";
    }
}

```

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]bj c_Yf

```

package com.cbf4life.common;

import java.util.ArrayList;
import java.util.List;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Client {

    public static void main(String[] args) {
        for(Employee emp:mockEmployee()){

```

```
        emp.report();
    }
}

//
public static List<Employee> mockEmployee(){
    List<Employee> empList = new ArrayList<Employee>();

    //
    CommonEmployee zhangSan = new CommonEmployee();
    zhangSan.setJob("    Java    ");
    zhangSan.setName("    ");
    zhangSan.setSalary(1800);
    zhangSan.setSex(Employee.MALE);
    empList.add(zhangSan);

    //
    CommonEmployee liSi = new CommonEmployee();
    liSi.setJob("    ");
    liSi.setName("    ");
    liSi.setSalary(1900);
    liSi.setSex(Employee.FEMALE);
    empList.add(liSi);

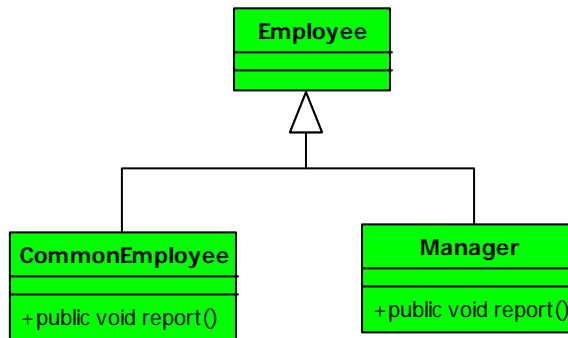
    //
    Manager wangWu = new Manager();
    wangWu.setName("    ");
    wangWu.setPerformance("    ");
```

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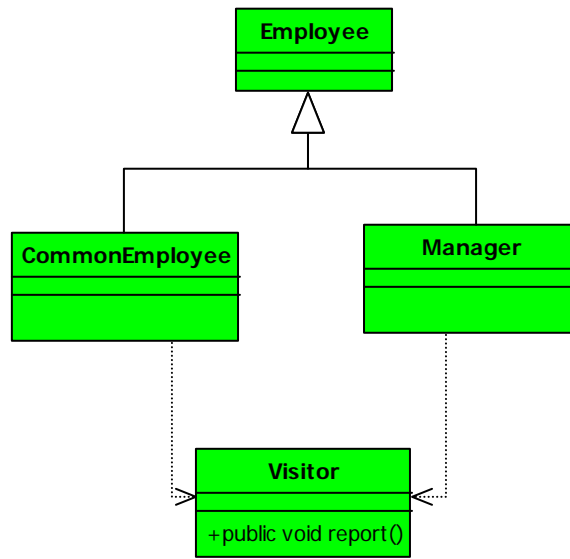
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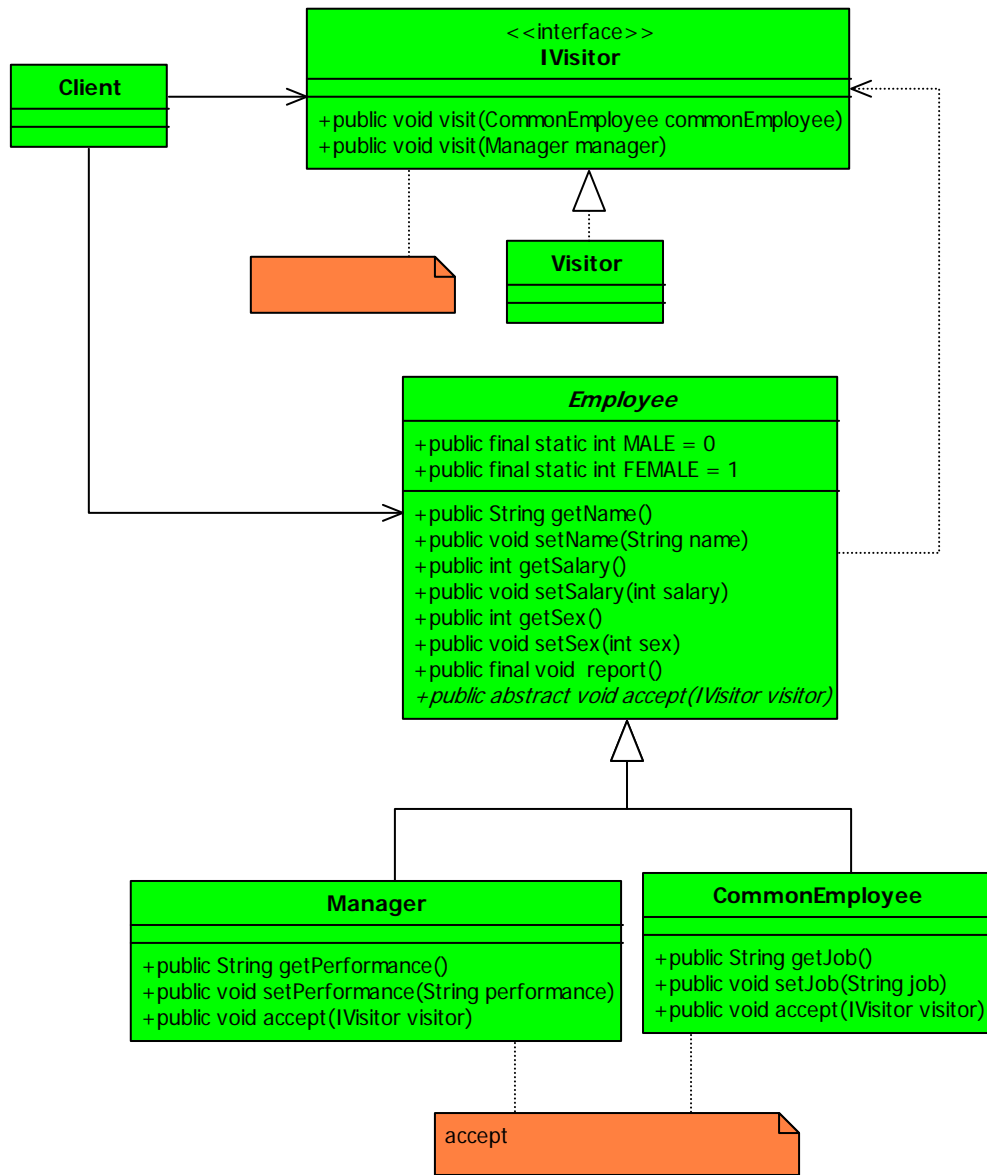


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```
package com.cbf4life.common2;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public interface IVisitor {
```

```
//
public void visit(CommonEmployee commonEmployee);

//
public void visit(Manager manager);

}

package com.cbf4life.common2;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public class Visitor implements IVisitor {

    //
    public void visit(CommonEmployee commonEmployee) {
        System.out.println(this.getCommonEmployee(commonEmployee));
    }

    //
    public void visit(Manager manager) {
        System.out.println(this.getManagerInfo(manager));
    }

    //
    private String getBasicInfo(Employee employee){
        String info = "        " + employee.getName() + "\t";
        info = info + "        " + (employee.getSex() == Employee.FEMALE?"    ":"    ")
+ "\t";
        info = info + "        " + employee.getSalary() + "\t";

        return info;
    }

    //
    private String getManagerInfo(Manager manager){
        String basicInfo = this.getBasicInfo(manager);
        String otherInfo = "        "+manager.getPerformance() + "\t";
```

```
        return basicInfo + otherInfo;
    }

    //
    private String getCommonEmployee(CommonEmployee commonEmployee) {
        String basicInfo = this.getBasicInfo(commonEmployee);
        String otherInfo = "        "+commonEmployee.getJob()+"\t";
        return basicInfo + otherInfo;
    }
}
```

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```
package com.cbf4life.common2;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public abstract class Employee {
    public final static int MALE = 0; //0
    public final static int FEMALE = 1; //1
    //
    private String name;

    //
    private int salary;

    //
    private int sex;

    //          getter/setter
    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }
}
```

```
public int getSalary() {
    return salary;
}

public void setSalary(int salary) {
    this.salary = salary;
}

public int getSex() {
    return sex;
}

public void setSex(int sex) {
    this.sex = sex;
}

//
public abstract void accept(IVisitor visitor);
}
.
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.

package com.cbf4life.common2;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class CommonEmployee extends Employee {

    //
    private String job;

    public String getJob() {
        return job;
    }

    public void setJob(String job) {
        this.job = job;
    }

    //
```

```
@Override
public void accept(IVisitor visitor){
    visitor.visit(this);
}
}
```

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```
package com.cbf4life.common2;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public class Manager extends Employee {

    //
    private String performance;

    public String getPerformance() {
        return performance;
    }

    public void setPerformance(String performance) {
        this.performance = performance;
    }

    //
    @Override
    public void accept(IVisitor visitor){
        visitor.visit(this);
    }
}
```

```
package com.cbf4life.common2;
```

```
import java.util.ArrayList;
import java.util.List;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public class Client {

    public static void main(String[] args) {
        for(Employee emp:mockEmployee()){
            emp.accept(new Visitor());
        }
    }

    //
    public static List<Employee> mockEmployee(){
        List<Employee> empList = new ArrayList<Employee>();

        //
        CommonEmployee zhangSan = new CommonEmployee();
        zhangSan.setJob("    Java                ");
        zhangSan.setName("    ");
        zhangSan.setSalary(1800);
        zhangSan.setSex(Employee.MALE);
        empList.add(zhangSan);

        //
        CommonEmployee liSi = new CommonEmployee();
        liSi.setJob("                ");
        liSi.setName("    ");
        liSi.setSalary(1900);
        liSi.setSex(Employee.FEMALE);
        empList.add(liSi);

        //
        Manager wangWu = new Manager();
        wangWu.setName("    ");
        wangWu.setPerformance("                ");
        wangWu.setSalary(18750);
        wangWu.setSex(Employee.MALE);
        empList.add(wangWu);

        return empList;
    }
}
```

```
}  
}
```

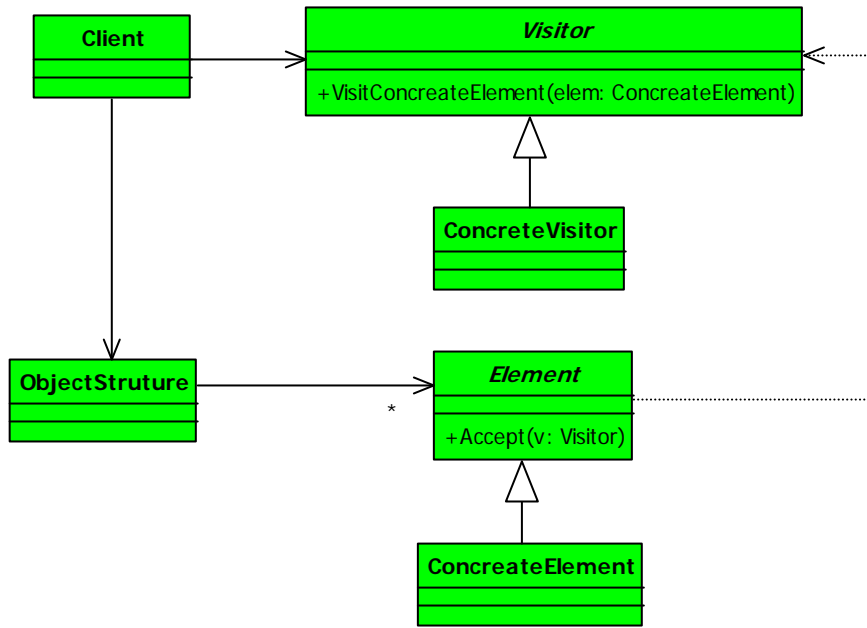
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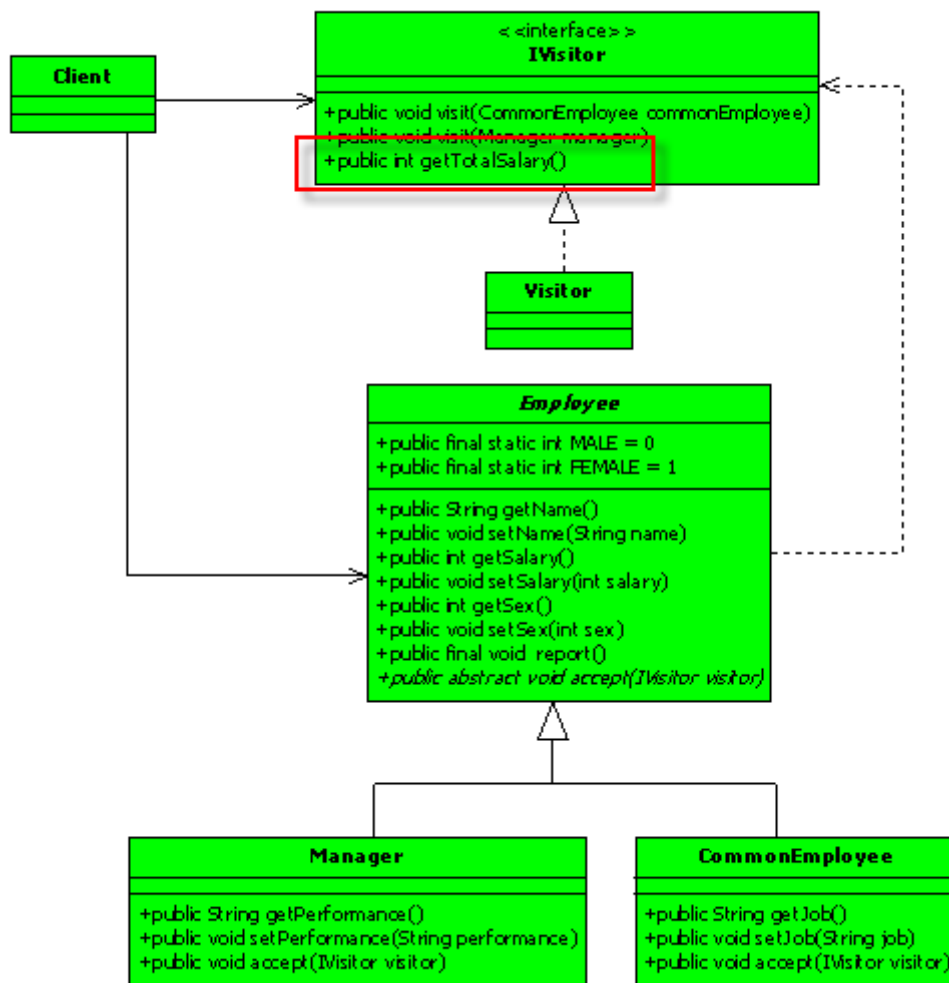
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```

package com.cbf4life.extend;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public interface IVisitor {

    //
    public void visit(CommonEmployee commonEmployee);

    //
    public void visit(Manager manager);
  
```

```

//
public int getTotalSalary();
}

        [YhHthU GU Ufm

package com.cbf4life.extend;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public class Visitor implements IVisitor {
    //          5
    private final static int MANAGER_COEFFICIENT = 5;

    //          2
    private final static int COMMONEMPLOYEE_COEFFICIENT = 2;

    //
    private int commonTotalSalary = 0;

    //
    private int managerTotalSalary = 0;

    //
    public void visit(CommonEmployee commonEmployee) {
        System.out.println(this.getCommonEmployee(commonEmployee));
        //
        this.calCommonSalary(commonEmployee.getSalary());
    }

    //
    public void visit(Manager manager) {
        System.out.println(this.getManagerInfo(manager));
        //
        this.calManagerSalary(manager.getSalary());
    }

    //
    private String getBasicInfo(Employee employee){
        String info = "        " + employee.getName() + "\t";
        info = info + "        " + (employee.getSex() == Employee.FEMALE?" ":" ")

```

```

+ "\t";
    info = info + "          " + employee.getSalary() + "\t";

    return info;
}

//
private String getManagerInfo(Manager manager){
    String basicInfo = this.getBasicInfo(manager);
    String otherInfo = "          "+manager.getPerformance() + "\t";
    return basicInfo + otherInfo;
}

//
private String getCommonEmployee(CommonEmployee commonEmployee){
    String basicInfo = this.getBasicInfo(commonEmployee);
    String otherInfo = "          "+commonEmployee.getJob()+"\t";
    return basicInfo + otherInfo;
}

//
private void calManagerSalary(int salary){
    this.managerTotalSalary = this.managerTotalSalary + salary
*MANAGER_COEFFICIENT ;
}

//
private void calCommonSlary(int salary){
    this.commonTotalSalary = this.commonTotalSalary +
salary*COMMONEMPLOYEE_COEFFICIENT;
}

//
public int getTotalSalary(){
    return this.commonTotalSalary + this.managerTotalSalary;
}
}

```

```

package com.cbf4life.extend;

import java.util.ArrayList;
import java.util.List;

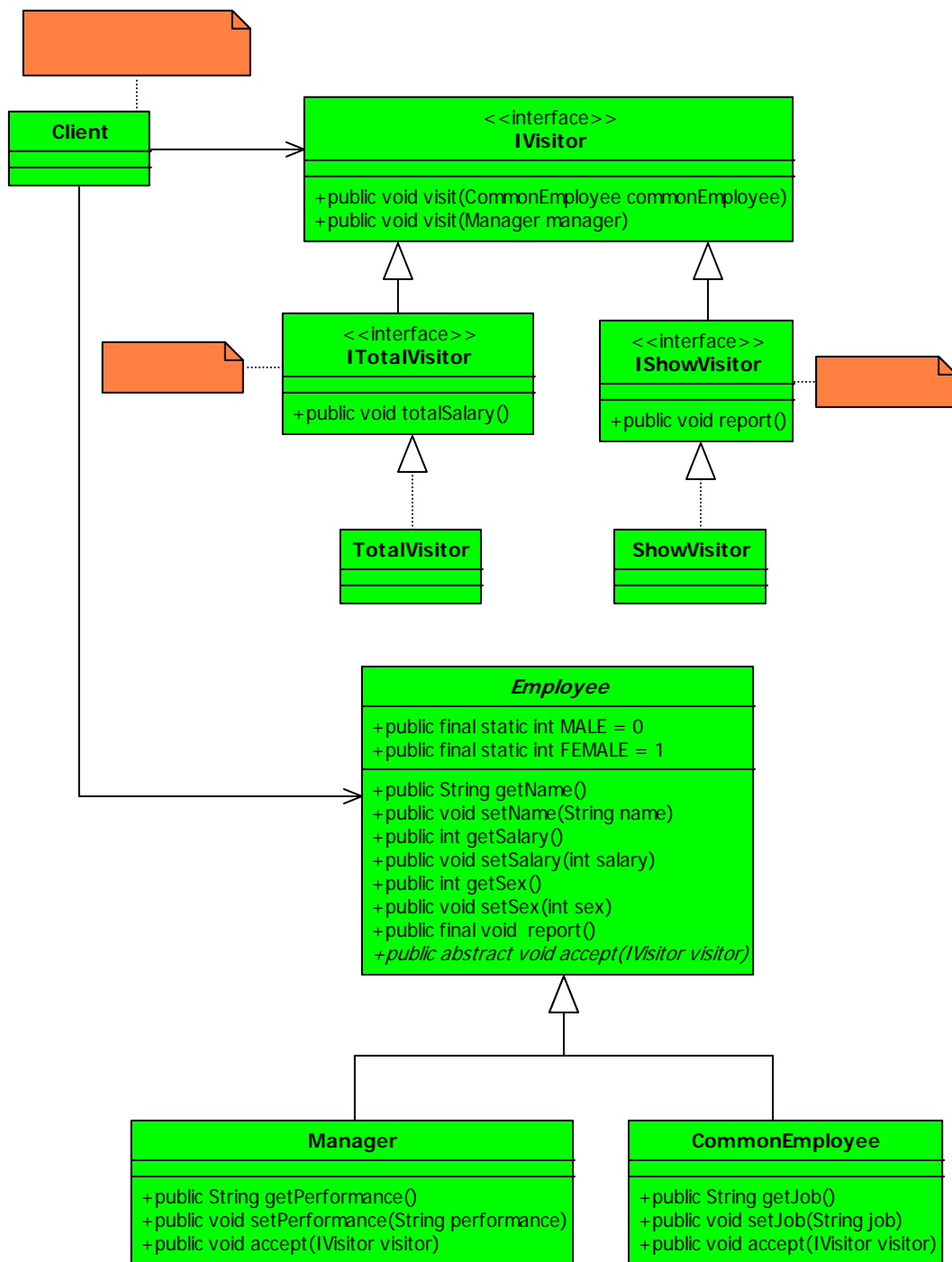
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public class Client {

    public static void main(String[] args) {
        IVisitor visitor = new Visitor();
        for(Employee emp:mockEmployee()){
            emp.accept(visitor);
        }
        System.out.println("                "+visitor.getTotalSalary());
    }
}

```

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=J]g]hcf

```
package com.cbf4life.extend2;
```

```
/**
```

```
* @author cbf4Life cbf4life@126.com
```

```
* I'm glad to share my knowledge with you all.
*
*/
public interface IVisitor {

    //
    public void visit(CommonEmployee commonEmployee);

    //
    public void visit(Manager manager);

}
```

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```
package com.cbf4life.extend2;

/**
* @author cbf4Life cbf4life@126.com
* I'm glad to share my knowledge with you all.
*
*/
public interface ITotalVisitor extends IVisitor {
    //
    public void totalSalary();
}
```

```
package com.cbf4life.extend2;

/**
* @author cbf4Life cbf4life@126.com
* I'm glad to share my knowledge with you all.
*
*/
public interface IShowVisitor extends IVisitor {
    //
    public void report();
}
```

```
package com.cbf4life.extend2;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class ShowVisitor implements IShowVisitor {
    private String info = "";

    //
    public void report() {
        System.out.println(this.info);
    }

    //
    public void visit(CommonEmployee commonEmployee) {
        this.info = this.info + this.getBasicInfo(commonEmployee)+ "
"+commonEmployee.getJob()+"\t\n";
    }

    //
    public void visit(Manager manager) {
        this.info = this.info + this.getBasicInfo(manager) + "
"+manager.getPerformance() + "\t\n";
    }

    //
    private String getBasicInfo(Employee employee){
        String info = "      " + employee.getName() + "\t";
        info = info + "      " + (employee.getSex() == Employee.FEMALE?" ":" ")
+ "\t";
        info = info + "      " + employee.getSalary() + "\t";

        return info;
    }
}
```

```

package com.cbf4life.extend2;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class TotalVisitor implements ITotalVisitor {
    //          5
    private final static int MANAGER_COEFFICIENT = 5;

    //          2
    private final static int COMMONEMPLOYEE_COEFFICIENT = 2;

    //
    private int commonTotalSalary = 0;

    //
    private int managerTotalSalary =0;

    public void totalSalary() {
        System.out.println("                " + (this.commonTotalSalary +
this.managerTotalSalary));
    }

    //
    public void visit(CommonEmployee commonEmployee) {
        this.commonTotalSalary = this.commonTotalSalary +
commonEmployee.getSalary()*COMMONEMPLOYEE_COEFFICIENT;
    }

    //
    public void visit(Manager manager) {
        this.managerTotalSalary = this.managerTotalSalary + manager.getSalary()
*MANAGER_COEFFICIENT ;
    }
}

```

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```

package com.cbf4life.extend2;

import java.util.ArrayList;
import java.util.List;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public class Client {

    public static void main(String[] args) {
        //
        IShowVisitor showVisitor = new ShowVisitor();
        //
        ITotalVisitor totalVisitor = new TotalVisitor();

        for(Employee emp:mockEmployee()){
            emp.accept(showVisitor); //
            emp.accept(totalVisitor);//
        }

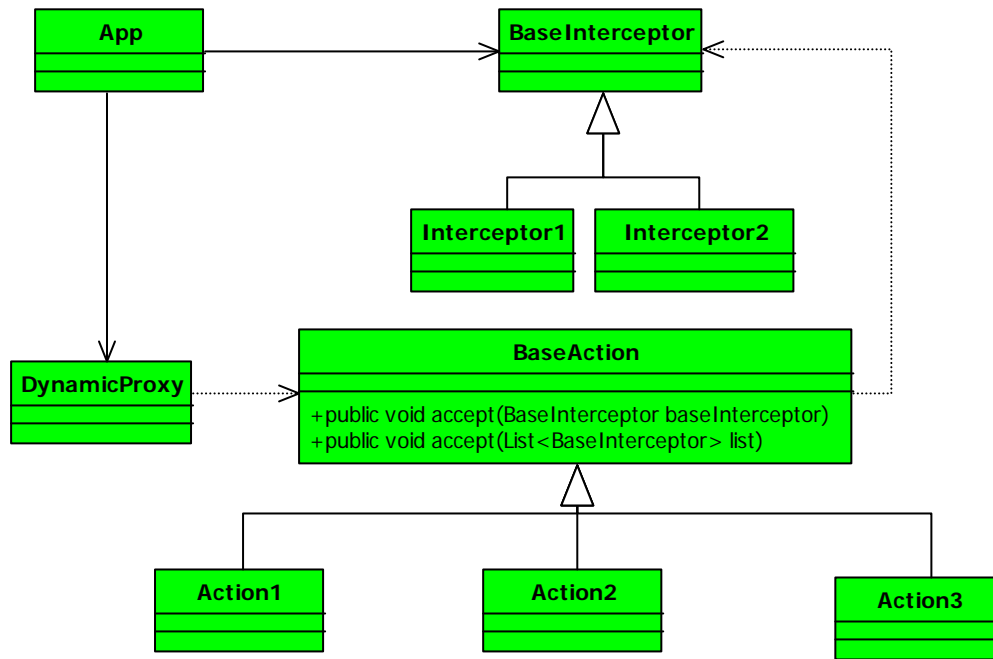
        //
        showVisitor.report();
        //
        totalVisitor.totalSalary();
    }
}

```

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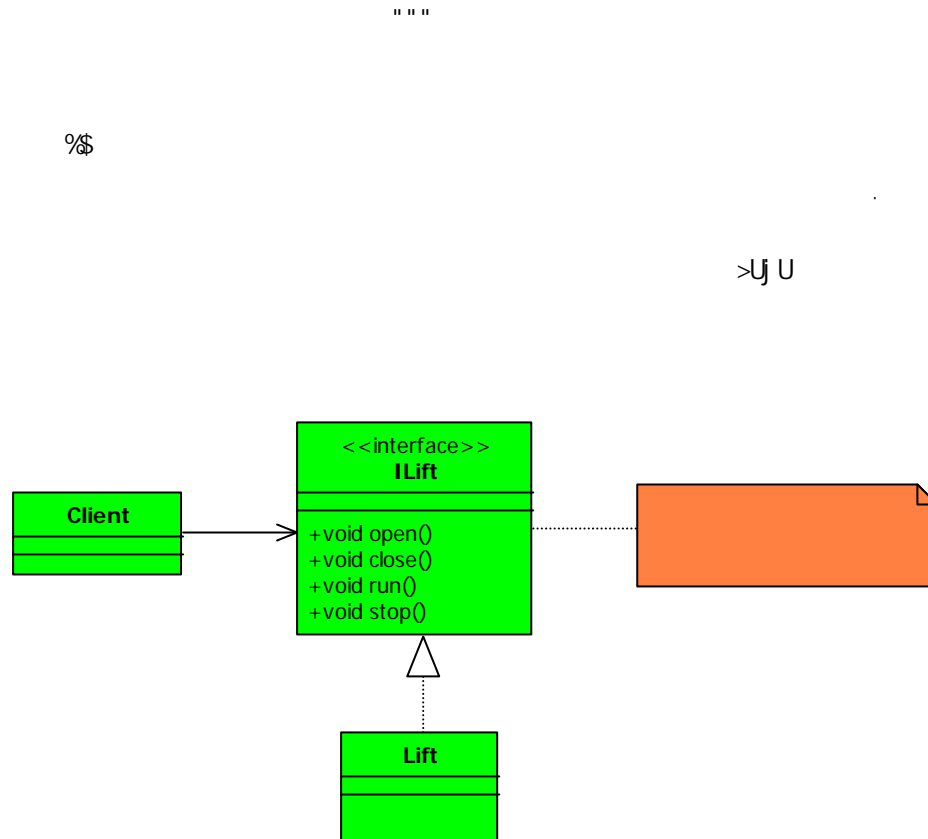
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```
package com.cbf4life.common;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public interface ILift {
```

```
    //
```

```
    public void open();
```

```
    //
```

```
    public void close();

    //
    public void run();

    //
    public void stop();
}

.

.

.

package com.cbf4life.common;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Lift implements ILift {

    //
    public void close() {
        System.out.println("    ...");
    }

    //
    public void open() {
        System.out.println("    ...");
    }

    //
    public void run() {
        System.out.println("    ...");
    }

    //
    public void stop() {
        System.out.println("    ...");
    }
}
```

```
package com.cbf4life.common;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public class Client {

    public static void main(String[] args) {
        ILift lift = new Lift();
        //
        lift.open();

        //
        lift.close();

        //
        lift.run();

        //
        lift.stop();
    }
}
```

```
...
...
...
...
```

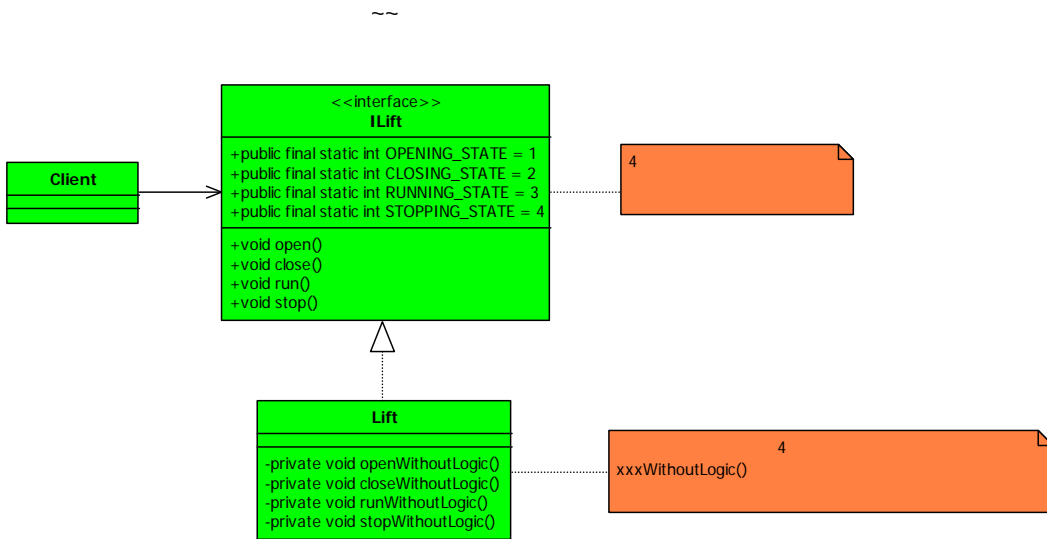
g\ck

!!!

!!!

!!!

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```
package com.cbf4life.common2;
```

```
/**
```

```
* @author cbf4Life cbf4life@126.com
* I'm glad to share my knowledge with you all.
*
*/
```

```
public interface ILift {
    //
    public final static int OPENING_STATE = 1; //
    public final static int CLOSING_STATE = 2; //
    public final static int RUNNING_STATE = 3; //
    public final static int STOPPING_STATE = 4; //

    //
    public void setState(int state);

    //
    public void open();

    //
    public void close();

    //
    public void run();

    //
    public void stop();
}
```

```
//
public void close() {
    //
    switch(this.state){
        case OPENING_STATE: //
            this.closeWithoutLogic();
            this.setState(CLOSING_STATE);
            break;
        case CLOSING_STATE: //
            //do nothing;
            break;
        case RUNNING_STATE: //
            //do nothing;
            break;
        case STOPPING_STATE: //
            //do nothing;
            break;
    }
}

//
public void open() {
    //
    switch(this.state){
        case OPENING_STATE: //
            //do nothing;
            break;
        case CLOSING_STATE: //
            this.openWithoutLogic();
            this.setState(OPENING_STATE);
            break;
        case RUNNING_STATE: //
            //do nothing;
            break;
        case STOPPING_STATE: //
            this.openWithoutLogic();
            this.setState(OPENING_STATE);
            break;
    }
}

//
```

```
public void run() {
    switch(this.state){
        case OPENING_STATE: //
            //do nothing;
            break;
        case CLOSING_STATE: //
            this.runWithoutLogic();
            this.setState(RUNNING_STATE);
            break;
        case RUNNING_STATE: //
            //do nothing;
            break;
        case STOPPING_STATE: //
            this.runWithoutLogic();
            this.setState(RUNNING_STATE);
    }
}

//
public void stop() {
    switch(this.state){
        case OPENING_STATE: //
            //do nothing;
            break;
        case CLOSING_STATE: //
            this.stopWithoutLogic();
            this.setState(CLOSING_STATE);
            break;
        case RUNNING_STATE: //
            this.stopWithoutLogic();
            this.setState(CLOSING_STATE);
            break;
        case STOPPING_STATE: //
            //do nothing;
            break;
    }
}

//
private void closeWithoutLogic(){
    System.out.println("    ...");
}

//
```

```
private void openWithoutLogic(){
```

```
//  
lift.stop();  
}  
}
```



@Zh" ^Uj U

gk] hVX... VUgY

]Z...Y` gY

CdYbfIk 7' cgYfIk Fi bfIk

GhcdfIk

gk] hVX

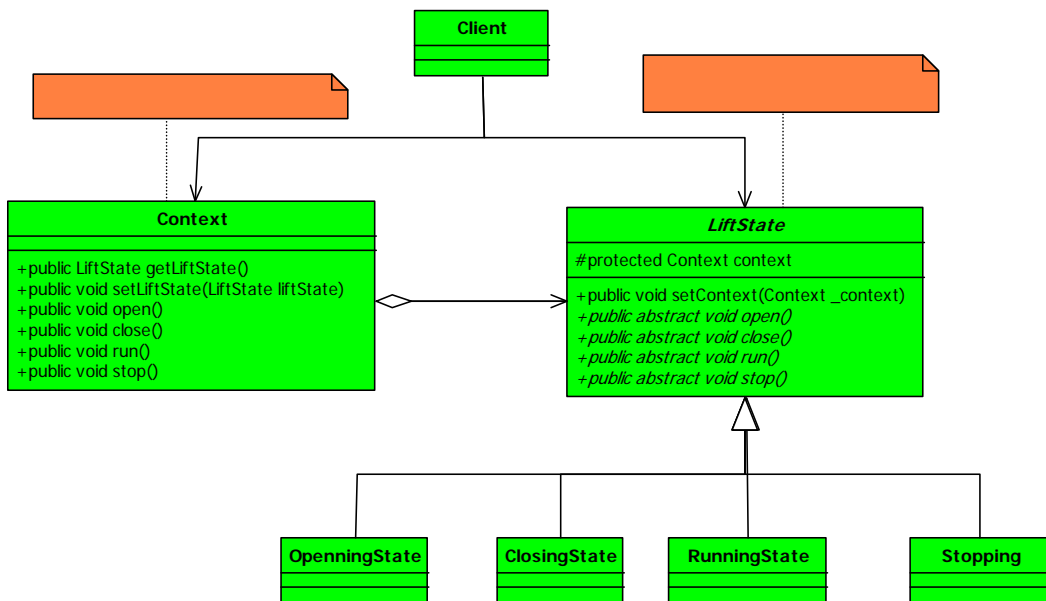
VUgY

(\$

%

ghcd

ghcd



@ZhGhUy

7cbhYI h

@ZhGhUy

```
package com.cbf4life.advance;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public abstract class LiftState{
```

```
    //
```

```
    protected Context context;
```

```
    public void setContext(Context _context){
```

```
        this.context = _context;
```

```
    }
```

```
//
public abstract void open();

//
public abstract void close();

//
public abstract void run();

//
public abstract void stop();
}
.
.

package com.cbf4life.advance;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class OpeningState extends LiftState {

    //
    @Override
    public void close() {
        //
        super.context.setLiftState(Context.closeingState);
        // CloseState
        super.context.getLiftState().close();
    }

    //
    @Override
    public void open() {
        System.out.println("    ...");
    }

    //
    @Override
    public void run() {
```

```

        //do nothing;
    }

    //
    public void stop() {
        //do nothing;
    }
}

```

```

        CdYbb] b[          cdYbfll
        df] bh          CdYbb] b[
        7 cg] b[          7 cgYflL          7 cgY
7 cgYChUhY          7 cgY          7cbhYl h

```

```

package com.cbf4life.advance;

```

```

/**

```

```

 * @author cbf4Life cbf4life@126.com

```

```

 * I'm glad to share my knowledge with you all.

```

```

 */

```

```

public class Context {

```

```

    //

```

```

    public final static OpenningState openningState = new OpenningState();

```

```

    public final static ClosingState closeingState = new ClosingState();

```

```

    public final static RunningState runningState = new RunningState();

```

```

    public final static StoppingState stoppingState = new StoppingState();

```

```

    //

```

```

    private LiftState liftState;

```

```

    public LiftState getLiftState() {

```

```

        return liftState;

```

```

    }

```

```

    public void setLiftState(LiftState liftState) {

```

```

        this.liftState = liftState;

```

```

        //

```

```

        this.liftState.setContext(this);

```

```

    }

```

```
public void open(){
    this.liftState.open();
}

public void close(){
    this.liftState.close();
}

public void run(){
    this.liftState.run();
}

public void stop(){
    this.liftState.stop();
}
}
```

7cbhYI h

@ZhGUhY

```
package com.cbf4life.advance;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class ClosingState extends LiftState {

    //
    @Override
    public void close() {
        System.out.println("    ...");
    }

    //
    @Override
    public void open() {
        super.context.setLiftState(Context.openningState); //
        super.context.getLiftState().open();
    }
}
```

```
    }

    //
    @Override
    public void run() {
        super.context.setLiftState(Context.runningState); //
        super.context.getLiftState().run();
    }

    //
    @Override
    public void stop() {
        super.context.setLiftState(Context.stoppingState); //
        super.context.getLiftState().stop();
    }
}
.
.
.

package com.cbf4life.advance;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class RunningState extends LiftState {

    //
    @Override
    public void close() {
        //do nothing
    }

    //
    @Override
    public void open() {
        //do nothing
    }

    //
    @Override
```

```
public void run() {
    System.out.println("    ...");
}

//
@Override
public void stop() {
    super.context.setLiftState(Context.stoppingState); //
    super.context.getLiftState().stop();
}
}
.
.

package com.cbf4life.advance;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class StoppingState extends LiftState {

    //
    @Override
    public void close() {
        //do nothing;
    }

    //
    @Override
    public void open() {
        super.context.setLiftState(Context.openingState);
        super.context.getLiftState().open();
    }

    //
    @Override
    public void run() {
        super.context.setLiftState(Context.runningState);
        super.context.getLiftState().run();
    }
}
```

```
//
@Override
public void stop() {
    System.out.println("    ...");
}
}
```

7]Ybh


```
package com.cbf4life.advance;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Client {

    public static void main(String[] args) {
        Context context = new Context();
        context.setLiftState(new ClosingState());

        context.open();
        context.close();
        context.run();
        context.stop();
    }
}
```

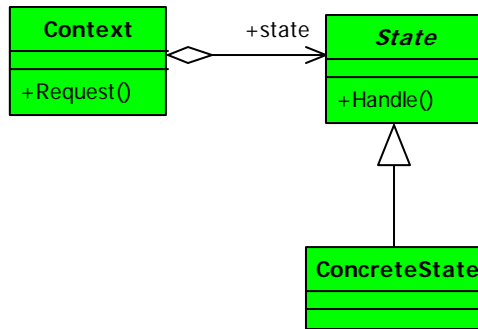
7]Ybh



```
...
...
...
...
```

gk] hVW...WUgY

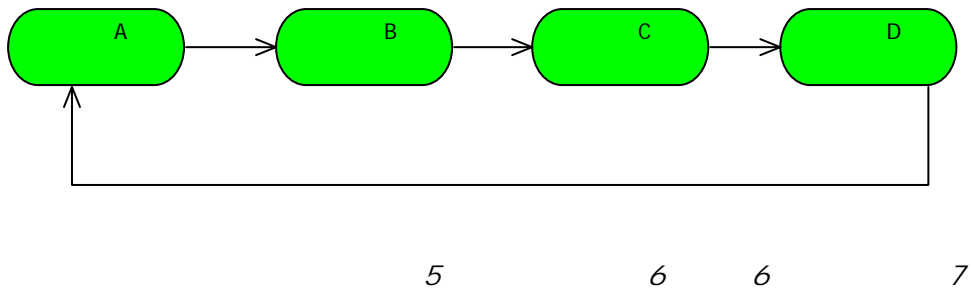
; C . 5`ck'Ub'cV^YVh'hc'U' hYf'] hg'WY\Uj] cf'k\Yb'] hg'] bhYfbU' ghUhY'VWUb[Yg" 'HY' cV^YVh'k]` `` UddYUf' hc'VWUb[Y'] hg'WUgg" 'Q c: ž' d' \$]



gk] h\...WUgY]Z""Y gY

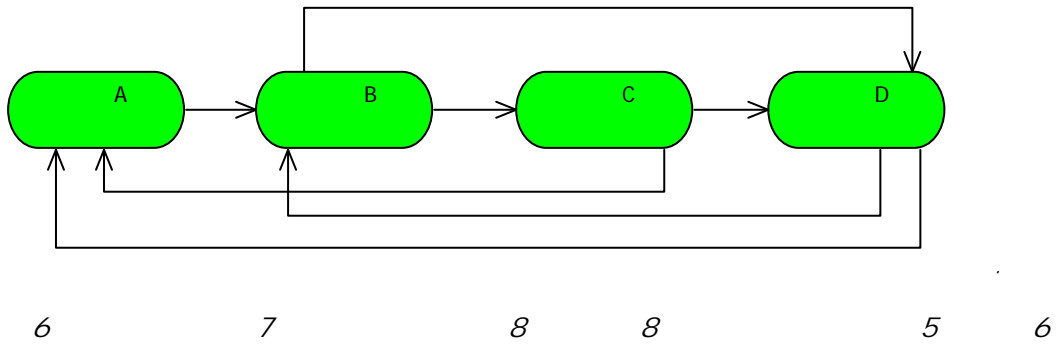
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DUhYfb`Zcf`8 aa]Yg



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H7D



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!2

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fGhUhY' AUMX]bYŁ

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6CGG

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26

26.1

Single Responsibility Principle

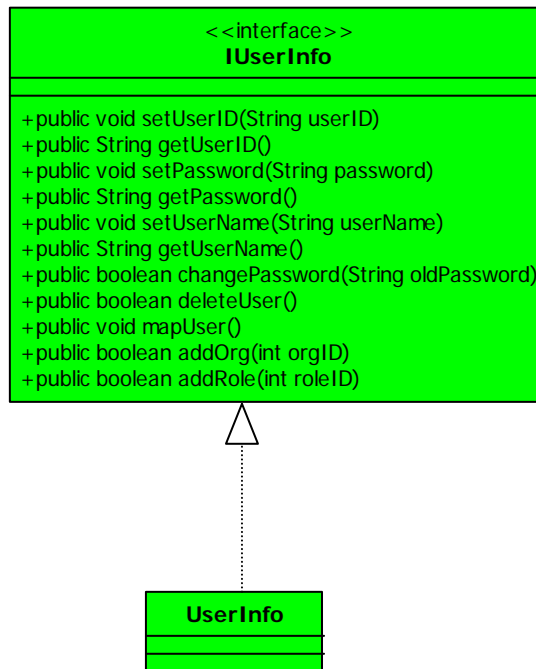
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6Y\Uj] cf

fłi gg] bYgg'CV^YVhž

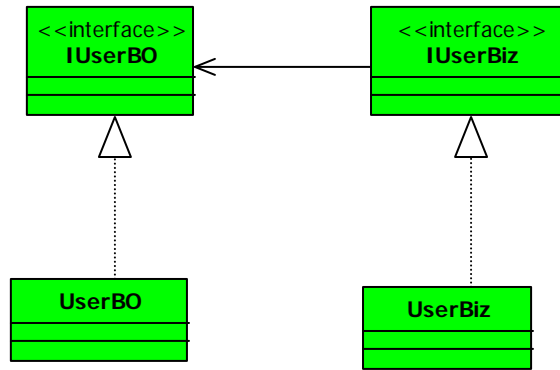
6CŁ



<<interface>>
IUserInfo

=l gYf 6C

=l gYf 6]n



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° ž

GFD

H.YfY: g\ci `X: bYj Yf` WY` acfY` h\Ub: cbY` fYUgcb: Zcf` U` WUgg: hc` W\Ub[Y

```
*  
*/  
public interface IPhone {  
  
    //  
    public void dial(String phoneNumber);  
  
    //  
    public void chat(Object o);  
  
    //  
    public void answer(Object o);  
  
    //  
    public void huangup();  
}
```

LLL

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X] U[flk

\i Ub[i dflk

VXUhfik UbgkYf flk

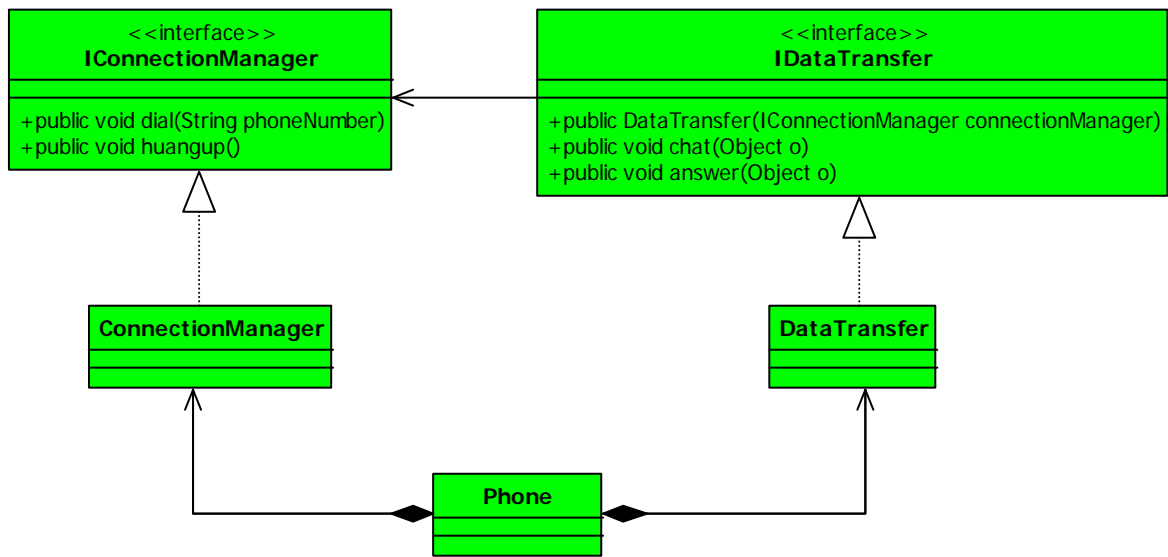
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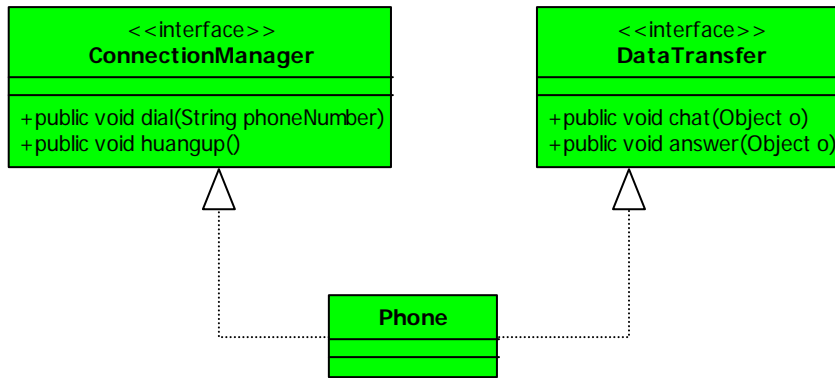
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D\cbY

=D\cbY

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26.2

Liskov Substitution Principle

KYV

Gyfj]W

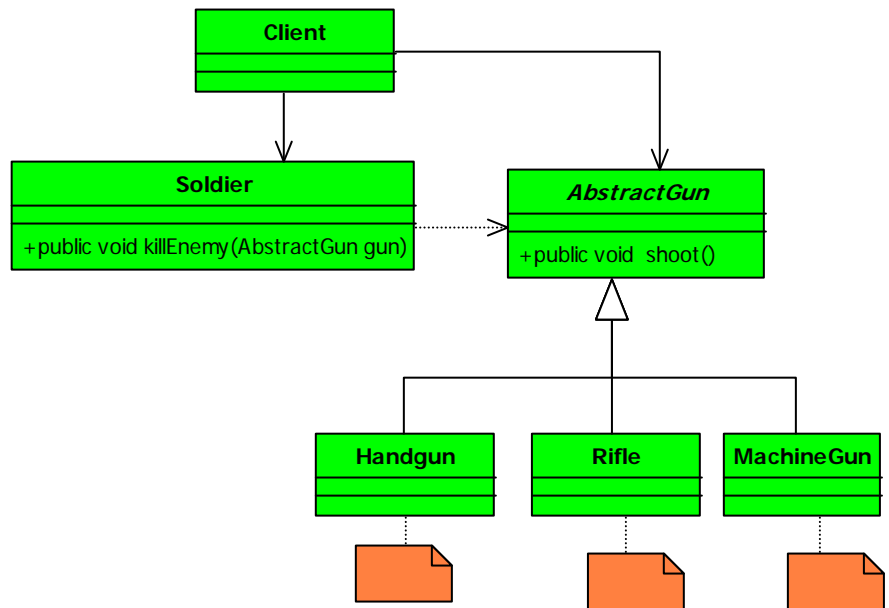
=Z' Zcf' YUW' cV^YVh' c% cZ' hndY' G' h\YfY']g' Ub' cV^YVh' c& cZ' hndY' H'
gi W' h\Uh' Zcf' U' ' dfc[fUag' D' XYZ] bYX']b' hYfag' cZ' H' h\Y' W\Uj]cf' cZ' D']g' i bWUb[YX' k\Yb' c%]g'
gi Vgh] hi hYX' Zcf' c& h\Yb' G']g' U' gi VhndY' cZ' H'

	H%	c%	H&	c&	H%	D
c%	c&	D		H&	H%	

Zi bW] cbg' h\Uh' i gY' dc] bhYf'g' cf' fYZYfYbWg' hc' VUgY' WUggYg' ai gh' WY' UV' Y' hc' i gY'
cV^YVhg' cZ' XYf]j YX' WUggYg' k] h\ci h' _bck] b[']h"

7G

: DG



Yam

5VghfUW; i b

```

public abstract class AbstractGun {

    //
    public abstract void shoot();
}

public class Handgun extends AbstractGun {

    //
    @Override
    public void shoot() {
        System.out.println("    ...");
    }
}

public class Rifle extends AbstractGun{

```

```
//
public void shoot(){
    System.out.println("    ...");
}
}
.

public class MachineGun extends AbstractGun{

    public void shoot(){
        System.out.println("    ...");
    }
}
.

.

public class Soldier {

    public void killEnemy(AbstractGun gun){
        System.out.println("    ...");
        gun.shoot();
    }
}
.

.
```

7]Ybh

```
public class Client {

    public static void main(String[] args) {
        //
        Soldier sanMao = new Soldier();
        sanMao.killEnemy(new Rifle());
    }
}
.

.
```

...

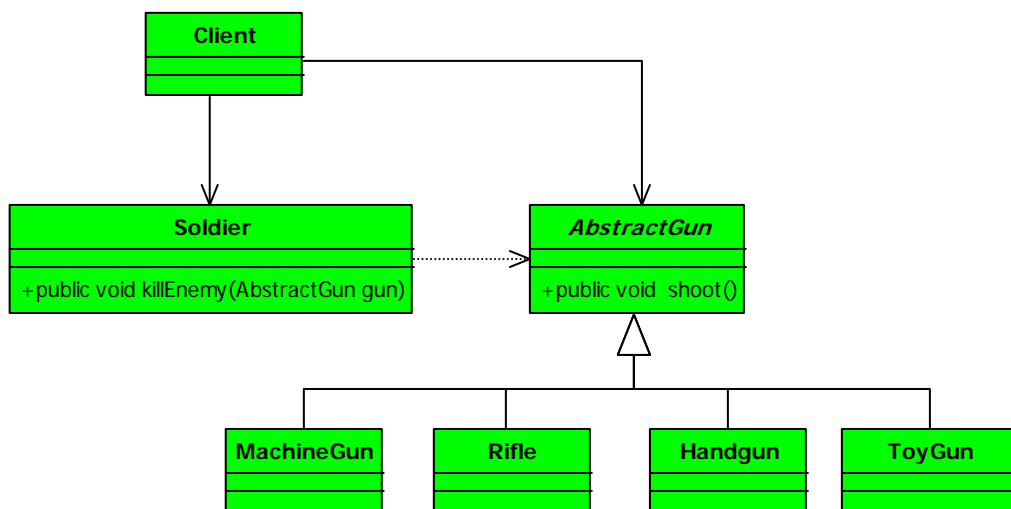
...

ž

sanMao.killEnemy(new Rifle()) sanMao.killEnemy(new MachineGun())

Gc`X]Yf

@D



Hcmib

5VghfUWt;ib

g\cch

Hcmib

```
public class ToyGun extends AbstractGun {
```

```
    //
    @Override
    public void shoot() {
        //
    }
}
```

```
public class Client {
```

```
public static void main(String[] args) {  
    //  
    Soldier sanMao = new Soldier();  
    sanMao.killEnemy(new ToyGun());  
}  
}
```



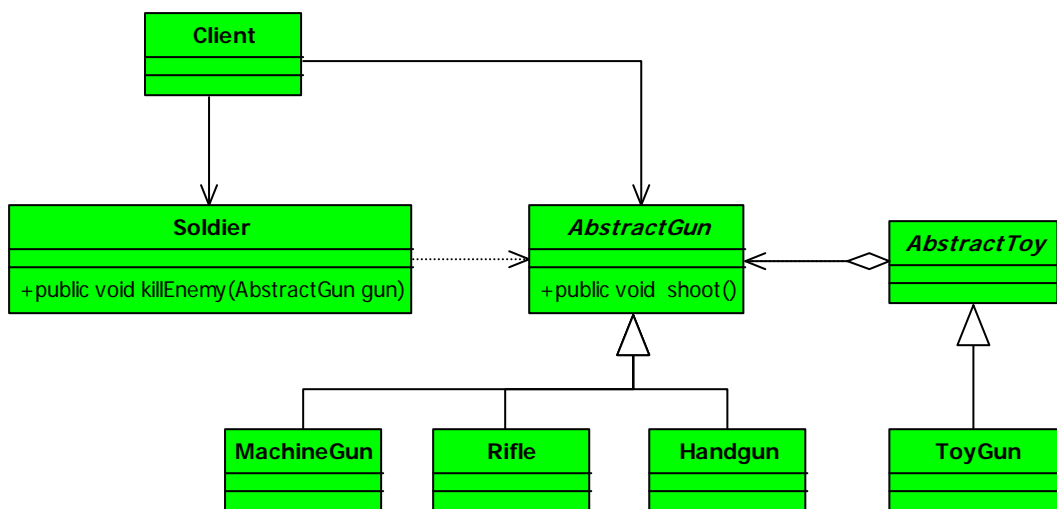
7G

Bi aVYf` cbY. Gc` X] Yf] bghUbWcZ

6l;

Bi aVYf` hkc. Hcm i b

5VghfUWñ; i b



5VghfUWñHcm

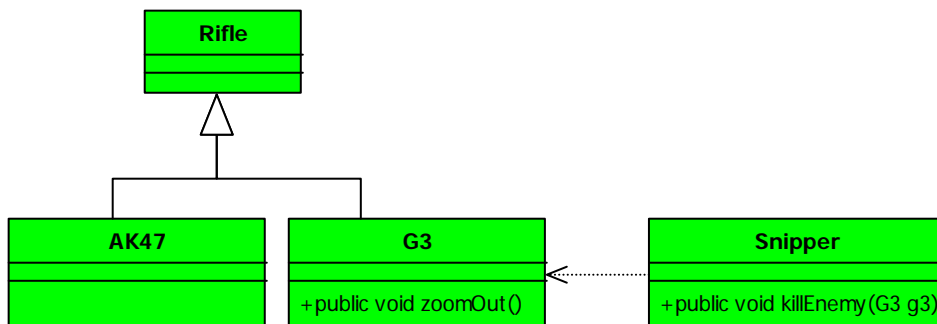
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>Uj U

>Uj U

5VghfUWt; i b

5?(+ ;'



;' F]Z`Y fIGb] ddYfŁ ;'

```
public class G3 extends Rifle {

    //
    public void zoomOut(){
        System.out.println(" ...");
    }

    public void shoot(){
        System.out.println("G3 ...");
    }
}

public class Sniper {
```

```
public void killEnemy(G3 g3){
    //
    g3.zoomOut();
    //
    g3.shoot();
}
}
```

Gb]ddYf gb]dY

gb] ddYf

```
public class Client {

    public static void main(String[] args) {
        //
        Sniper sanMao = new Sniper();
        sanMao.killEnemy(new G3());
    }
}
```

G3 ...

7]Ybh

```
public class Client {

    public static void main(String[] args) {
        //
        Sniper sanMao = new Sniper();
        Rifle rifle = new Rifle();
    }
}
```

```
sanMao.killEnemy((G3)rifle);
}
```

[java.lang.ClassCastException](#)

XckbWlgh

KYV Gyfj]W

KG8@

8Yg] [b` Vm 7cbhf UWh

: Uh\Yf .

```
public class Father {
    public Collection doSomething(HashMap map){
        System.out.println(" ...");
        return map.values();
    }
}
```

<Ug\AUd 7c` `YWh] cb

```
public class Son extends Father {
    //
    public Collection doSomething(Map map){
        System.out.println(" ...");
        return map.values();
    }
}
```

G Yff] XY

4G Yff] XY

G Yf` cUX

```
public class Client {  
    public static void invoker(){  
        //  
        Father f = new Father();  
        HashMapvoid
```

=bj c_Yf

: Uh\Yf

```
public class Father {  
  
    public Collection doSomething(Map map){  
        System.out.println("Map Collection ");  
        return map.values();  
    }  
}  
  
    Ald  
  
public class Son extends Father {  
  
    //  
    public Collection doSomething(HashMap map){  
        System.out.println("HashMap Collection ...");  
        return map.values();  
    }  
}  
  
public class Client {  
    public static void invoker(){  
        //  
        Father f= new Father();  
        HashMap map = new HashMap();  
        f.doSomething(map);  
    }  
}
```

```
public static void main(String[] args) {
    invoker();
}
```

...

7]Ybh

```
public class Client {
    public static void invoker(){
        //
        Son f =new Son();
        HashMap map = new HashMap();
        f.doSomething(map);
    }

    public static void main(String[] args) {
        invoker();
    }
}
```

...

/

"

26.3

Dependence Inversion Principle

✧

26.4

Interface Segregation Principle

✧

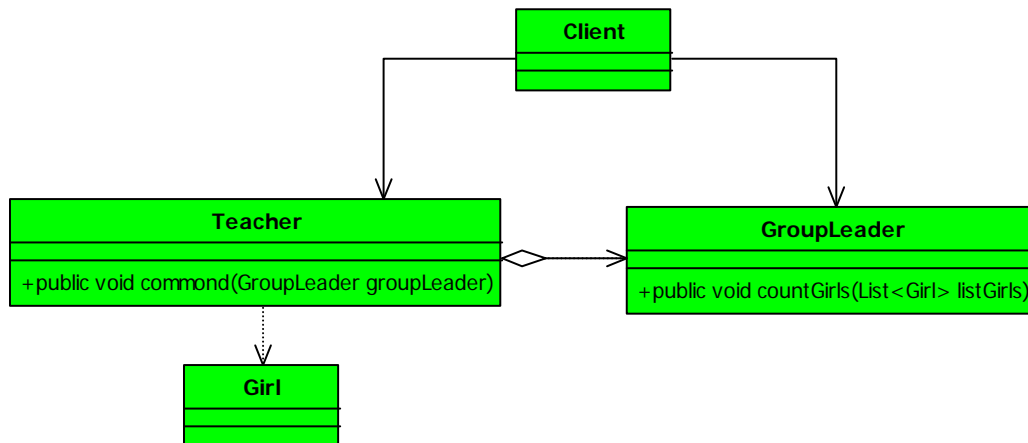
26.5 Low Of Demeter

@c8z c @/Ugh
?bck` YX[Y` Df] bVd` Y @?D

di V]W

Cb` mi hU _` hc` mci f`] aaYXUhY` Zf] YbXg

#..... %



HYUWXYf" ^Uj U

```
package com.cb4life.common;
```

```
import java.util.ArrayList;
```

```
import java.util.List;
```

```
/**
```

```

* @author cbf4Life cbf4life@126.com
* I'm glad to share my knowledge with you all.
*
*/
public class Teacher {

    //
    public void commond(GroupLeader groupLeader){
        List<Girl> listGirls = new ArrayList();
        //
        for(int i=0;i<20;i++){
            listGirls.add(new Girl());
        }

        //
        groupLeader.countGirls(listGirls);
    }
}

```

; fci d@YUXYf" ^Uj U

```

package com.cbf4life.common;

```

```

import java.util.List;

```

```

/**
* @author cbf4Life cbf4life@126.com
* I'm glad to share my knowledge with you all.
*
*/
public class GroupLeader {

    //
    public void countGirls(List<Girl> listGirls){
        System.out.println("          "+listGirls.size());
    }
}

;]f" ^Uj U

```

```
package com.cbf4life.common;
```

```
/**  
 * @author cbf4Life cbf4life@126.com  
 * I'm glad to share my knowledge with you all.  
 *  
 */
```

```
public class Girl {  
  
}
```

7]Ybh.

```
package com.cbf4life.common;
```

```
/**  
 * @author cbf4Life cbf4life@126.com  
 * I'm glad to share my knowledge with you all.  
 * Client  
 */
```

```
public class Client {  
  
    public static void main(String[] args) {  
        Teacher teacher= new Teacher();  
  
        //  
        teacher.commond(new GroupLeader());  
    }  
}
```

; fci d@UXYf

```
package com.cbf4life.common2;
```

```
import java.util.ArrayList;
```

```
import java.util.List;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class GroupLeader {
```

```
    //
```

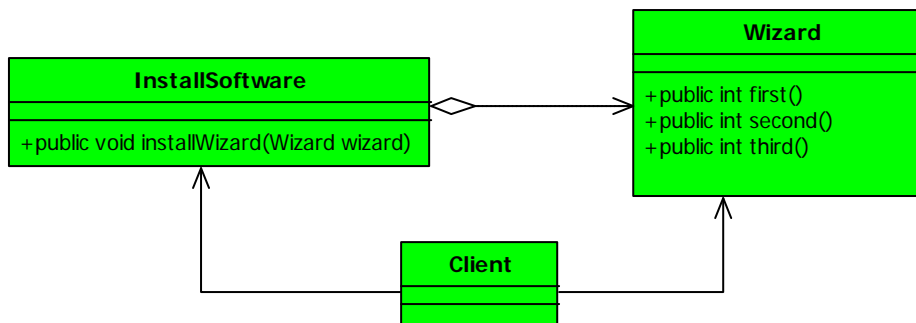
```
    public void countGirls(){
```

```
        List<Girl> listGirls = new ArrayList<Girl>();
```

}

HYUWXYf @gh0,]f` 2
; fci d@YUXYf Wzi bh; f]` g HYUWXYf ;]f`
[Yh5fll" [Yh6fll" [Yh7fll" [Yh8fll

>8?` 5D=



K]nUfX

```
package com.cbf4life.common3;

import java.util.Random;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Wizard {
    private Random rand = new Random(System.currentTimeMillis());
    //
```

```
public int first(){
    System.out.println("          ...");
    return rand.nextInt(100);
}

//
public int second(){
    System.out.println("          ...");
    return rand.nextInt(100);
}

//
public int third(){
    System.out.println("          ...");
    return rand.nextInt(100);
}
}
.
```

=bghU`GcZhkUfY

```
package com.cbf4life.common3;
```

```
/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class InstallSoftware {

    public void installWizard(Wizard wizard){
        int first = wizard.first();
        //    first                second
        if(first>50){
            int second = wizard.second();
            if(second>50){
                int third = wizard.third();
                if(third >50){
                    wizard.first();
                }
            }
        }
    }
}
```

```

    }

}

}

}

package com.cbf4life.common3;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 */
public class Client {

    public static void main(String[] args) {
        InstallSoftware invoker = new InstallSoftware();
        invoker.installWizard(new Wizard());
    }
}

```

K] nUF X

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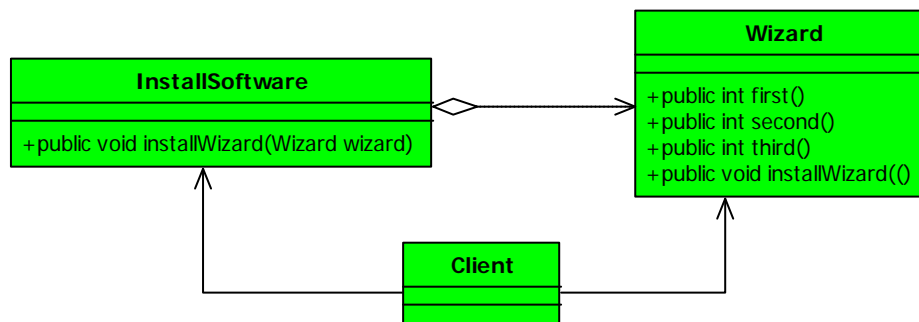
] bh

Vcc` YUb

di V] W

di V] W

df] j UhYzdUW_U[Y! df] j UhY dfchYVWYX



K] nUF X

```

package com.cbf4life.common4;

import java.util.Random;

/**
 * @author cbf4Life cbf4life@126.com
 * I'm glad to share my knowledge with you all.
 *
 */
public class Wizard {
    private Random rand = new Random(System.currentTimeMillis());

    //
    private int first(){
        System.out.println("        ...");
        return rand.nextInt(100);
    }

    //
    private int second(){
        System.out.println("        ...");
        return rand.nextInt(100);
    }

    //
    private int third(){
        System.out.println("        ...");
        return rand.nextInt(100);
    }

    //
    public void installWizard(){
        int first = this.first();
        //    first                second
        if(first>50){
            int second = this.second();
            if(second>50){
                int third = this.third();
                if(third >50){
                    this.first();
                }
            }
        }
    }
}

```

```
}
```

```
.
```

```
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```
package com.cbf4life.common4;
```

```
/**
```

```
 * @author cbf4Life cbf4life@126.com
```

```
 * I'm glad to share my knowledge with you all.
```

```
 *
```

```
 */
```

```
public class InstallSoftware {
```

```
    public void installWizard(Wizard wizard){
```

```
        //
```

```
        wizard.installWizard();
```

```
    }
```

```
}
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Open Close Principle

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