

软件体系结构 作业12

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1 修改本例，增加一个新的concrete的Builder。

CSVBuilder代码如下：

```
import java.io.*;
public class CSVBuilder extends Builder{
    private String fileName;
    private PrintWriter printWriter;

    public void makeTitle(String title){
        fileName = title + ".csv";
        try{
            printWriter = new PrintWriter(new FileWriter(fileName));
            printWriter.println(title);
        }catch (IOException e){
            e.printStackTrace();
        }
    }

    public void makeString(String str){
        printWriter.println(str);
    }

    public void makeItems(String[] items){
        for(int i = 0; i < items.length; i++) printWriter.print(items[i] +
",");
        printWriter.println();
    }

    public Object getResult(){
        printWriter.close();
        return fileName;
    }
}
```

Main函数修改如下：

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        usage();
    }
}
```

```

while(true){
    String s;
    s = in.next();
    if (s.equals("plain")) {
        Director director = new Director(new TextBuilder());
        String result = (String)director.construct();
        System.out.println(result);
    } else if (s.equals("html")) {
        Director director = new Director(new HTMLBuilder());
        String filename = (String)director.construct();
        System.out.println("已产生" + filename + "。");
    } else if(s.equals("csv")){
        Director director = new Director(new CSVBuilder());
        String filename = (String)director.construct();
        System.out.println("已产生" + filename + "。");
    } else {
        in.close();
        usage();
        System.exit(0);
    }
}

}

public static void usage() {
    System.out.println("Usage: plain 产生一般格式的文件");
    System.out.println("Usage: html 产生HTML格式的文件");
    System.out.println("Usage: csv 产生CSV格式的文件");
}

}

```

运行结果:

The image shows the IntelliJ IDEA interface with a terminal window titled "Main". The terminal displays the execution of a Java program. The command used is `E:\MyJava\jdk17\bin\java.exe "-javaagent:E:\MyJava\IntelliJ IDEA Community Edition\lib\idea_rt.jar=12175:E:\MyJava\IntelliJ IDEA Community Edition\bin\java.exe" -Dfile.encoding=UTF-8`. The output shows three usage instructions: `Usage: plain` (产生一般格式的文件), `Usage: html` (产生HTML格式的文件), and `Usage: csv` (产生CSV格式的文件). The program then runs three scenarios: 1. `plain`: Prints "=====", "[Greeting]", "■从早上到白天结束", "?早安。", "?午安。", "■到了晚上", "?晚安。", "?祝你有个好梦。", "?再见。", and "=====". 2. `html`: Prints "已产生Greeting.html。". 3. `csv`: Prints "已产生Greeting.csv.".

[illegible]