**《面向对象Java编程》上机作业7**

|  |  |
| --- | --- |
| **学号：** |  |
| **姓名：** |  |
| **班级：** |  |
| **日期：** |  |

1. Write a Java program called **ArithmeticTest2** that takes three ***command-line arguments***: two integers and in between an arithmetic operator (+, ‐, \*, /).

The program shall perform the corresponding operation on the two integers and display the result, **the arithmetic equations together with the results shall be also saved in a file called calculation.txt**. Note that you need to deal with the wrong inputs in this question (i.e. wrong input for operator or operands).

|  |
| --- |
| * **问题分析与解答** |
| * **代码实现** |
| * **运行结果** |
| * **思考及总结** |

1. 设计并实现一个程序ReplaceText，使其：

* 可以将一个文档中的特定字符串替换为另外一个给定字符串；
* 原来的文档内容不受影响，替换后的内容保存在新的文件中；
* 原来的文件、目标文件、要替换的字符串、替换的目标字符串都通过命令行参数传入，形式如下：

*java ReplaceText sourceFile targetFile oldString newString*

* 举例来说，如下命令替换sample.txt中的所有“aabbcc”为“123123”，并保存到新的文件new.txt中：

*java ReplaceText sample.txt new.txt aabbcc 123123*

|  |
| --- |
| * **问题分析与解答** |
| * **代码实现** |
| * **运行结果** |
| * **思考及总结** |

1. 编写一个程序，类名为WordCount，统计任意单词（如“hello”，由用户输入）在一篇英文文章（内容保存在当前文件夹下的article.txt）中出现的次数。要求统计时忽略单词的大小写，统计完毕后再显示器输出统计结果，格式为“单词hello在文章中出现的次数为： 10”。

提示：String类中的indexOf(String str)可以返回指定子字符串在此字符串中第一次出现处的索引；indexOf(String str, int fromIndex)可以从指定的索引开始返回指定子字符串在此字符串中第一次出现的索引。

|  |
| --- |
| * **问题分析** |
| * **代码实现** |
| * **运行结果** |
| * **思考及总结** |

1. 编写类HandInput.java，该类接受用户的键盘输入，存入指定的文件d:/f.txt。用户的输入以行为单位，当用户输入end#时，程序结束。如果指定的文件已经存在，程序提示用户“文件已存在，请重新指定保存的文件！”，并结束程序。

|  |
| --- |
| * **问题分析** |
| * **代码实现** |
| * **运行结果** |
| * **思考及总结** |

1. Create a file named “scores.txt”, within which there are five lines of texts as following,

NAMEs CPP JAVA OS DB CAD

Zhangsan 85 89.5 78 90.5 85

Lisi 67 89 78.5 85 77

Wangwu 78.5 81 67 88 67

Zhaoliu 90 95 87 78 89.5

Write a program to read the data from the file, and then change (mainly transposition) the format and output to another file named “courses.txt”. The content should be as following,

COURSEs Zhangsan Lisi Wangwu Zhaoliu

CPP 85 67 78.5 90

JAVA 89.5 89 81 95

OS 78 78.5 67 87

DB 90.5 85 88 78

CAD 85 77 67 89.5

The program should also be able to output (to console) the average scores for each course and for each person.

Tips:

1. The input and output streams should be closed after reading/writing finished.
2. The separators used in the two files are both blank spaces, you can change it into tabs (‘\t’) if you like.
3. There is no need to handle the exceptions in this question, but if you do, it will be better. (Use “throws Exception” at the method header, in which the possible exception would occur and handling of it is required.)

The methods of transforming strings into numerical values are: strings to int - **Integer.parseInt(str)**; string to double - **Double.parseDouble(str)**;

The methods from String to separate one whole string with certain separator:

**str.split(separator)**; note that the return value is an array of string… find more in APIs.

|  |
| --- |
| * **问题分析** |
| * **代码实现** |
| * **运行结果** |
| * **思考及总结** |

**注：**

* **独立完成！切勿抄袭！**
* **提交的文档请重命名为“*学号*\_*姓名*\_*上机n”*命名，如“*201912340001\_徐利锋\_上机n.doc”*). 如为重新提交，则命名为“*学号*\_*姓名*\_*上机n-*Update”.**
* **截止时间：5月29日 23:00**
* **提交方式：http://xzc.cn/dzyysgXj12** **或扫二维码：**

