**Assignment 1 – BCS 345 Java Programming**

**Due: 9/9/2019 @ 10:50am**

***Submission Guidelines***

Create a winzip file containing the WHOLE project directory and submit on Blackboard.

**READ ALL SPECIFICATIONS.** You only need to create one Java program for this assignment using Eclipse. When you submit the assignment using Blackboard make sure your zip file is attached to the submission.

IMPORTANT – Make sure you ***properly comment*** AND ***properly indent*** your program. The commenting and indenting documents are on Blackboard. ***If you fail to properly comment or properly indent I will deduct points.***

***VERY IMPORTANT – IF THE PROGRAM DOES NOT COMPILE THERE WILL BE MAJOR POINTS TAKEN OFF. THIS MEANS IT WILL BE A FAILING GRADE.***

***Overview***

Write a program that reads data from an input file and writes a report to an output file.

The input data will be customer purchase information. The output will be a report of a customer’s purchases. See below for both the input file format and the report format.

You will need to create a project and package using Eclipse for this assignment. Check the “BCS 345 Eclipse Create Project And Package” document on Blackboard.

***Detailed Specifications***

1. Create an input file for your program. See below for the input file format and sample data.
2. Report column specifications. Define the columns in the printf statements that generate the report such that they are wide enough to hold data at least as large as the data that appears in the sample input file below. All data in each column should be properly lined up (see example report below).
3. Ask the user to enter the name of both the input and output files. Whatever names they enter at the command line during execution should be used for input and output.

For example, if the user types in the string “CustomerPurchases.txt” for the input filename then the input data should be read from that file. The same goes for the output file. If the user enters the string “Report.txt” for the output file then the report should be written to that file.

DO NOT HARD CODE THE FILENAMES INTO THE PROGRAM OR YOU WILL LOSE POINTS!!!

1. ***Comment*** your code according to the guidelines set forth in the commenting document on Blackboard. Part of doing this requires **actually generating** ***Javadoc*** comments. It is not enough to just add the Javadoc comments to the Java source code. You need to actually generate the HTML documents that the Javadoc utility creates.

MAKE SURE YOU DO THIS CORRECTLY OR YOU WILL LOSE POINTS!!!

1. ***Indent*** your code according to the guidelines set forth in the indenting document on Blackboard.

MAKE SURE YOU DO THIS CORRECTLY OR YOU WILL LOSE POINTS!!!

***Notes and Hints***

* Each time through the loop you should process one record from the file. This means read it in, do any necessary calculations, and write it out.
* The cost for each line is calculated by multiplying the price by the quantity.
* The program should always work for a properly formatted input file.
* The program should work with different numbers of records in a properly formatted input file.
* I may test your program with an input file that contains a different number of records then the file you used as input to your program (for example 50 instead of 4). If the program does not work on my input file then it will be marked as incorrect.
* Use one instance of the Scanner class to read in the names of the input and output files.
* Use another instance of the Scanner class to read the data from the input file.
* Use the PrintStream class to write the report to the output file.

***Deliverables***

***One*** winzip file containing the Eclipse project.

|  |  |
| --- | --- |
| **Project** | **Description** |
| <your last name>.bcs345.hwk.purchases.standalonereport | This project should contain a **package** named <your last name>. bcs345.hwk.purchases.standalonereport. Create the **package** under the src directory in the project. This **package** contains the implementation for the program (Java class files). |

***Input File Format***

FirstName

LastName

HouseNumber

Street

City

State

Zip

ProductDescription

ProductPrice

ProductQuantity

…

ProductDescription

ProductPrice

ProductQuantity

***Sample Input File (CustomerPurchases.txt)***

**Jane**

**Doe**

**10**

**Broadway**

**New York**

**NY**

**10001**

**Galaxy S10**

**199.99**

**2**

**Samsung Bluetooth**

**29.99**

**1**

**Slim Fit Hard Plastic Case**

**2.99**

**2**

**Charger**

**17.99**

**3**

***Sample File Output (Report.txt)***

**Purchase Report**

**---------------**

**Jane Doe**

**10 Broadway**

**New York, NY 10001**

**Description Price Quantity Cost**

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**Galaxy S10 199.99 2 399.98**

**Samsung Bluetooth 29.99 1 29.99**

**Slim Fit Hard Plastic Case 2.99 2 5.98**

**Charger 17.99 3 53.97**

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**Total 8 489.92**