***CSC 3020***

***Java Programming***

**Lab 08**

**25 points**

**Due (10:10 A.M.)**

Assignment Objectives:

* To write a try-catch block to handle exceptions.
* To read data from a file using the Scanner class.
* To write data to a file using the PrintWriter class.

All labs must be submitted by the Canvas. **No email or hard copy** is accepted. You must follow the following format:

1. Submit your file to the Canvas. You must submit your file on time; otherwise, you will receive zero.
2. You can upload your file as many times as you like. Only the last attempt counts because the last file you uploaded is the only file your instructor will see.
3. There will be several modules on the Canvas. You need to upload your file using the correct module on the Canvas.
4. Name the lab file: *Lab (labt number)*
5. To upload your file(s):

* In Course Navigation, click the ASSIGNMENTS module.
* Click the title of the assignment.
* Click the **Submit** Assignment button.
* Add **File**. ...
* **Submit** Assignment. ...
* View **Submission**.

*It is your responsibility to make sure that the file is uploaded correctly. If you uploaded a wrong file, you receive zero; files will not be accepted after due date even if you have a prove that the file is created before the due date.*

***Make sure you review the Cheating & Plagiarism policy on Canvas.***

**Solution to this assignment will not be posted on Canvas; however, any question can be discussed in the class upon request of a student.**

Write a program that prompts the user to enter a file name and displays the number of lines, number of words, and the occurrences of each letter in the console window and in a file.

Words are separated by whitespace and letters are case insensitive.

Use “Lincoln.txt” for input and “letterCount.txt” for output. Use try-catch blocks to handle all checked exceptions (do not declare the exceptions in the method header). Do not use FileWriter class to write to a file.

Your program must have an extra function to display the output in a file and in the console window.

Here is a sample output:

|  |  |
| --- | --- |
| Console Window  Enter file name: Lincoln.txt  Lincoln.txt file has 16 lines and 277 words.  The occurrence of A's is 102  The occurrence of B's is 14  The occurrence of C's is 31  The occurrence of D's is 58  The occurrence of E's is 165  The occurrence of F's is 27  The occurrence of G's is 28  The occurrence of H's is 80  The occurrence of I's is 68  The occurrence of J's is 0  The occurrence of K's is 3  The occurrence of L's is 42  The occurrence of M's is 13  The occurrence of N's is 77  The occurrence of O's is 92  The occurrence of P's is 15  The occurrence of Q's is 1  The occurrence of R's is 79  The occurrence of S's is 43  The occurrence of T's is 126  The occurrence of U's is 21  The occurrence of V's is 24  The occurrence of W's is 28  The occurrence of X's is 0  The occurrence of Y's is 10  The occurrence of Z's is 0 | Output file  Enter file name: Lincoln.txt  Lincoln.txt file has 16 lines and 277 words.  The occurrence of A's is 102  The occurrence of B's is 14  The occurrence of C's is 31  The occurrence of D's is 58  The occurrence of E's is 165  The occurrence of F's is 27  The occurrence of G's is 28  The occurrence of H's is 80  The occurrence of I's is 68  The occurrence of J's is 0  The occurrence of K's is 3  The occurrence of L's is 42  The occurrence of M's is 13  The occurrence of N's is 77  The occurrence of O's is 92  The occurrence of P's is 15  The occurrence of Q's is 1  The occurrence of R's is 79  The occurrence of S's is 43  The occurrence of T's is 126  The occurrence of U's is 21  The occurrence of V's is 24  The occurrence of W's is 28  The occurrence of X's is 0  The occurrence of Y's is 10  The occurrence of Z's is 0 |