**Lab Assignment – 14  
Due Date: Dec 7th, (Friday), 11.59 pm  
Total Points: 100**

In this assignment, you would modify an existing program to provide exception handlers (try-catch blocks) to handle two different types of exceptions. The NetBeans project provided includes a program GradesStatistics.java that prompts the user for a file name. The program reads grades from the file and generates various grade statistics. The file to read “grades.txt” is also included in the NetBeans project folder.

You would first start by downloading and unzipping the NetBeans project folder posted right under the assignment in Blackboard and next, open it in NetBeans. You can run the program and when prompted for the file name, enter **grades.txt** and the program will run fine.

The first modification you would make is to remove the “throws IOException” from the header of the main method. Re-run the program and see what message you get. Now, you would provide appropriate exception handlers (try-catch blocks) to handle different types of the exceptions that are possible in this program to account for the following issues:

* FileNotFoundException (the code that generates this exception is the scanner object that is connected to the file object)
* InputMismatchException (inside the while loop, the call to the nextInt( ) method to read the next input from the file)

After your modification, when running the program, if the user enters a wrong file name, the program should recover and handle the FileNotFoundException and prompt the user again for the file name. Refer to the examples from chapter 11.

Next run the program again and when prompted enter grades1.txt as the file name. This is another text file included in the project that has bad data (alphabets along with grades). If your program is set up correctly, it will handle the InputMismatchException that the nextInt( ) method generates. You would handle the exception by simply ignoring that bad input and continue reading the other grades in the file and generate the output.

Finally, the last change you would make to this program is to write the output of the program (the various statistical counts) to a file named gradeStatisticsOutput.txt. Please note that the program should also continue to print the output to the output window apart from writing the output to the text file.

**Things to submit:**

* Copy the source code along with contents of the output window into a word document.
  + When there is no exception generated
  + When a FileNotFoundException is generated and handled – run the program with the wrong file name
  + When an InputMismatchException is generated and handled – run the program with grades1.txt
* Zip the contents of the NetBeans project folder