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CS1401

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Lab 4

**Activity 1**

Pseudo Code:

1. Import all relevant methods.
2. Set up scanner (scan)
3. Set up print writer (mywriter)
4. Set up random number generator (randGen)
5. Initialize variables
6. Generate 10 random numbers and print to file (“mysteryNumber.txt”)
7. Close file
8. Set up file reader (fileRead)/set buffer read (textRead)
9. For 10 iterations have the integer on each line store to numberInFile
   1. Ask user for integer input between 0 and 10
   2. Check user input
   3. Check to see if user input is equal to numberInFile
      1. If it equals subtract 10
      2. If it doesn’t add the difference
10. Close the reader
11. Print the total score

3. “throwsIOException” is used for methods involving input/output. Since IO often has problems this causes the program to terminate and gives the IO reason if the method can’t be executed the way it was intended. This information was found on the Oracle website.

<https://docs.oracle.com/javase/tutorial/essential/exceptions/throwing.html>

<http://docs.oracle.com/javase/7/docs/api/java/io/IOException.html>

4. PrintWriter is a method that allows the java program to a file as output. It can format text in a file, add strings, add characters, add integers, and append strings to other strings.

<http://docs.oracle.com/javase/7/docs/api/java/io/PrintWriter.html>

<http://www.tutorialspoint.com/java/io/java_io_printwriter.htm>

**Activity 2**

Pseudo Code:

1. Sets up scanner for keyboard input.
2. Get fileName
3. Set up FileReader
4. Set up BufferedReader
5. Set up Scanner for buffer
6. While (fileScan has a next value)
   1. FileScan next line
   2. If text isn't empty
      1. Tokenize line to parts
      2. Add token amount to totalWordCount
      3. Add 1 to totalLineCount
7. Price<- 10 \* totalLineCount + 0.25 \* totalWordCount
8. Give totalWordCount, totalLineCount, price