Spring 2022: CS 203 - Object-Oriented Programming

Lab2

Objectives:

- File IO (input/output) in Java
- Creating functions in Java

`fileAnalyze()`

Write a function **"`fileAnalyze`"** that reads a file called "`inputFile.txt`" file and writes to a new file called "`outputFile.txt`". Assume there are integers in each line of the input file like the Sample Input image below. Find (a) how many numbers in the file, (b) the max and (c) the min numbers, and the (d) average of these numbers. At the end of the file, append your report in the output file.

Sample Input

*inputFile.txt

```
1 10
2 20
3 30
4 40
5 50
6 60
```

Sample Output

outputFile.txt

```
1 10
2 20
3 30
4 40
5 50
6 60
7 **********
8 There are 6 numbers in this file
9 The minimum number is 10
10 The maximum number is 60
11 The average is 35
```

`sec2Days (n)` Write a function called `sec2Days()` that takes in an int **`n`** as input and returns a string. The function's parameter is the number of seconds. The function will calculate time in the form **D:HH:MM:SS** where D, HH, MM, and SS represent days, hours, minutes and seconds respectively. The function calculates those values separately, and combine them into a single **string** to return. Make sure you return a string and do not just print the string! You may assume the input parameter is always an integer.

Sample Input:	Expected Output:
n = 750,000	8:16:20:00
n = 1,234	0:00:20:34
n = 200,000	2:07:33:20

consonantCount (s)

Write a function called `consonantCount` that counts the number of times a consonant (either lowercase or uppercase) occur in a string. The function takes in a string **`s`** as a parameter and returns an integer, the number of consonants in the string. For this question, **y** and **Y** are not consonants. Please do not use a brute force solution (comparing against one consonant at a time)!

Sample Input	Sample Output
s = "abra cadabra"	6
s = "how many consonants?"	11
s = "This is Lab2, folks"	10