

## Object Oriented Programming: Lab #10

1. Write a program that will count the total occurrences of the number '10' in a text file of strings representing numbers of type int and will show the value of the count on the screen once the whole file is read.

The file contains the following numbers separated by space.

10 4 7 8 10 34 11 10 15 6 10

**File path: workspace/input.txt**

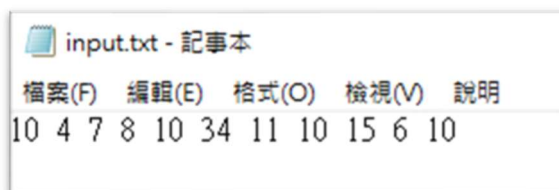
```
import java.io.File;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.util.Scanner;

public class LAB_QuestionNumber_StudentID {
    public static void main(String[] args) {

        //access file from current directory
        File fileName = new File("input.txt");

        // 
        // 
        // 
        // 
        // 
        // 
        // 
        // 
        // 
        // 

        System.out.println("The number of occurrences of number 10 is " + count);
    }
}
```



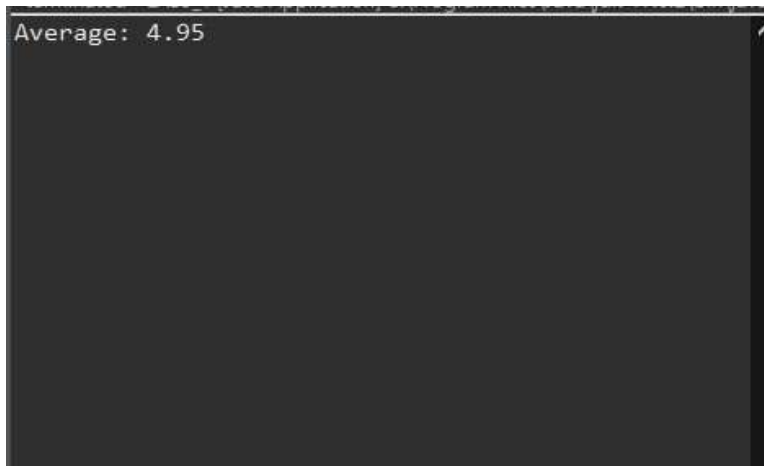
The number of occurrences of number 10 is 4

2. Write a program that takes its input from a text file of strings representing numbers of type double and outputs the average of the numbers in the file to the screen. The file contains nothing but strings representing numbers of type double, one per line.



Question2.txt - 記事本  
編集(F) 編集(E) 格式(O) 検索(V) 説明

1.1  
2.2  
3.3  
4.4  
5.5  
6.6  
7.7  
8.8



Average: 4.95

3. The exercise provides a class called **Student** with the following attributes and methods:

- **String id**: the student's ID
- **String name**: the student's name
- **int score**: the student's score
- **Student(String id, String name, int score)**: a constructor used to initialize the student's ID, name, and score.

## Requirements

Please create a class named **StudentDataIO** with the following methods:

- **void writeData(Student[] students, String filename):**

This method should take an array of students and a file name as inputs and write the information of each student to the specified file. (You can determine the data format yourself.)

- **Student[] readData(String filename):**

This method should take a file name as input, read the student information from that file, and then return an array containing all the students in the file.

## Testing

You can use the provided `CodeTester.java` to test your code.