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**COP2800 Assignment 3**

Program code:

```
package assignmentnum3;

import java.io.File;
import java.io.FileNotFoundException;
import java.io.PrintWriter;
import java.util.ArrayList;
import java.util.Scanner;

/**
 * @authors Zach & Blas
 */
public class AssignmentNum3 {
    public static void main(String[] args) {

        try{
            File textinput = new File ("C:/InputFile.txt");
            ArrayList <String> numbers;
            try (Scanner sc = new Scanner (textinput)) {
                numbers = new ArrayList<>();
                while (sc.hasNextLine()) {
                    String fileInputLine = sc.nextLine();
                    numbers.add(fileInputLine);
                }
            }

            try (PrintWriter writer = new PrintWriter ("C:/output.txt")) {
```

```

        int total = countNumbersInFile(numbers);

        int max = maximumInFile(numbers);

        int min = minimumInFile(numbers);

        double avg = averageInFile(numbers);


        writer.println("Counter: "+ total + " numbers");

        writer.println("Maximum Value: "+ max);

        writer.println("Minimum Value: "+ min);

        writer.println("Average Value: "+ avg);

    }

}

catch(FileNotFoundException e){

    System.out.println("ERROR");

}

}

public static int countNumbersInFile(ArrayList<String> NumFile){

    return NumFile.size();

}

public static int maximumInFile (ArrayList<String> NumFile){

    int maxList = Integer.parseInt(NumFile.get(0));

    for (int i=1; i<NumFile.size(); i++){

        int num = Integer.parseInt(NumFile.get(i));

        if (num > maxList){

            maxList = num;

        }

    }

    return maxList;

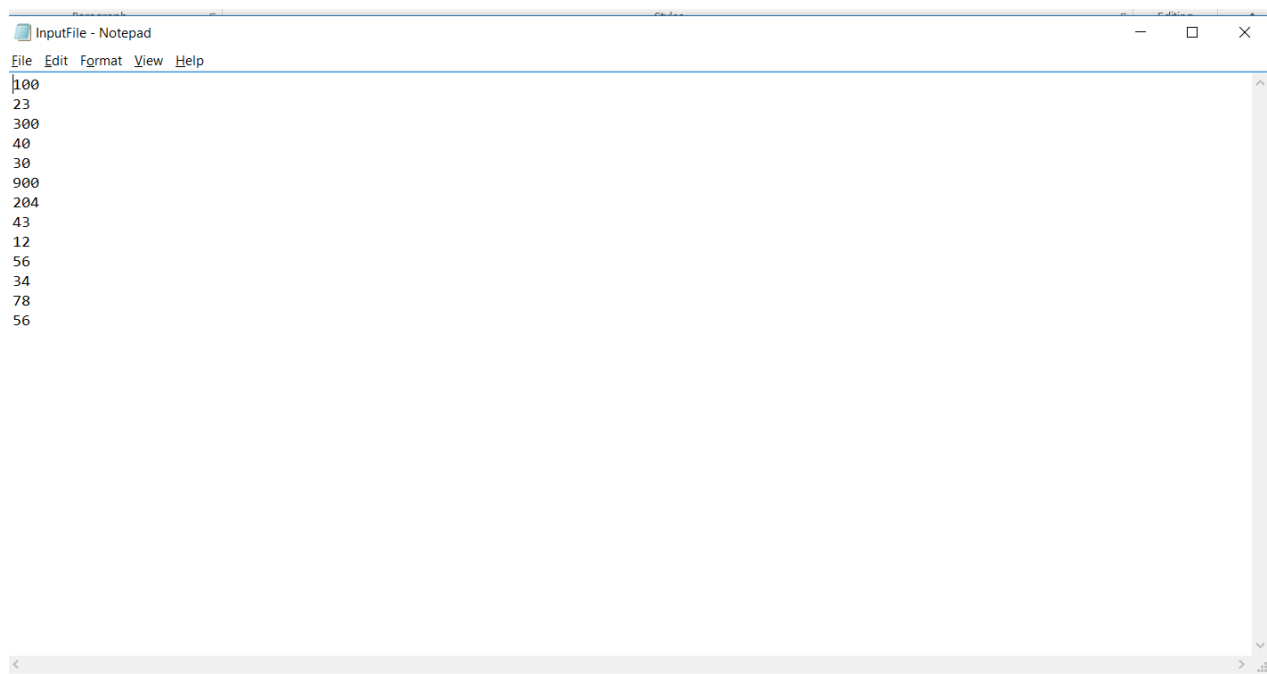
}

public static int minimumInFile (ArrayList<String> NumFile){

```

```
int minList = Integer.parseInt(NumFile.get(0));  
for (int i=1; i<NumFile.size(); i++){  
    int num = Integer.parseInt(NumFile.get(i));  
    if (minList > num){  
        minList = num;  
    }  
}  
return minList;  
}  
  
public static double averageInFile (ArrayList<String> NumFile){  
    double sum = 0;  
    for (int i=0; i<NumFile.size(); i++){  
        int num = Integer.parseInt(NumFile.get(i));  
        sum = sum + num;  
    }  
    double avgNum = sum/NumFile.size();  
    return avgNum;  
}  
}
```

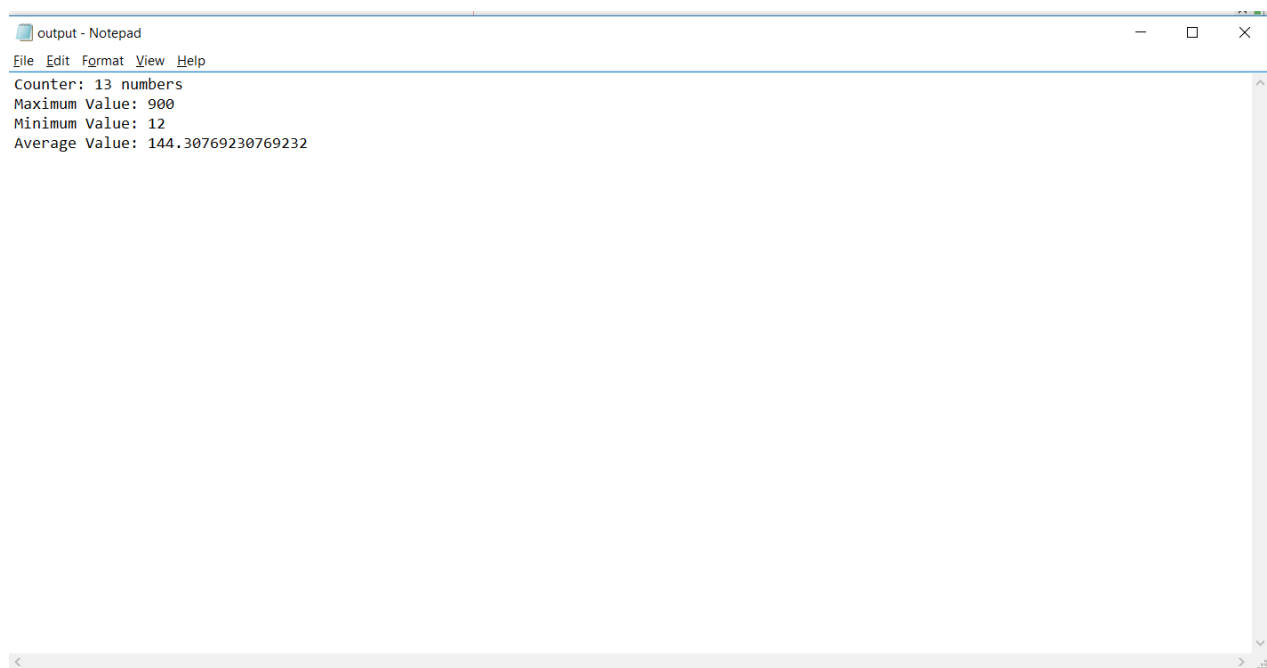
### Input file:



A screenshot of a Notepad window titled "InputFile - Notepad". The window has a menu bar with "File", "Edit", "Format", "View", and "Help". The text area contains a list of 13 numbers, each on a new line: 100, 23, 300, 40, 30, 900, 204, 43, 12, 56, 34, 78, and 56. The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

```
100
23
300
40
30
900
204
43
12
56
34
78
56
```

### Output file:



A screenshot of a Notepad window titled "output - Notepad". The window has a menu bar with "File", "Edit", "Format", "View", and "Help". The text area contains the following statistical results: "Counter: 13 numbers", "Maximum Value: 900", "Minimum Value: 12", and "Average Value: 144.30769230769232". The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

```
Counter: 13 numbers
Maximum Value: 900
Minimum Value: 12
Average Value: 144.30769230769232
```