

## **PA2-4-2016**

Almost all the students in a school want to be above the average of their class in their exams. Develop a python program to output the percentage of students who have scored above the average.

- a) The input is text file in the same folder. You get the text file name as input from the terminal to your program.
- b) Have a function named **getText** to read input from file. Handle invalid input properly. And output the string **"INVALID"** to file and display a meaningful message on screen.
- c) Have a function named **showResult** to display the output on the screen and to write it into a file named **result.txt** in the same folder. You may define additional functions in your code.
- d) The main program should call the functions appropriate to achieve the task.

### **Format**

**Input** (via terminal): Name of the input file in a single line

**Input file:** The first line contains integer N, the number of test cases.

The next N lines contain the N number of data sets where each data set begins with an integer M ( $1 \leq N \leq 100$ ) the number of students in the class.

M is followed by M number of final grades (an integer between 0 and 100) separated by spaces.

**Output:** For each test data set output a line string the percentage of students whose grade is above the average, rounded to 1 decimal places.

Input file name	Input file	Output
Input_1.txt	1 5 30 50 70 80 100	60.0
Input_2.txt	2 3 70 90 80 9 100 99 48 47 46 45 94 93 91	33.3 55.5