CS100 – Fall 2015

Homework #1

Due: November 5th, 2015, 23:55

In this homework, you are expected to extract some statistical information from a matrix consisting of scores of students. The tasks that your program is expected to do are listed below.

a) Firstly, a 6x3 matrix of random integers will be generated having scores between 1 and 100. In this matrix, each column corresponds to a course whereas each row corresponds to a student.
b) Then, your program will give a statistical report for each course where the average, maximum and minimum scores will be printed.
c) Thirdly, for a specific student selected by the user, your program will give a detailed report about the performance of the student:

- Pass or fail information: the student fails a course if s/he takes a score below than the average of that course.
- If s/he gets the top score from a course, it must be reported.

Two sample runs of the program are as follows:

```
>> hw1
Grades of students
G =

   48    54    21
   43    85    36
   78    71    96
   24    24    74
   37     6    80
   29    63    13

For course 1: Average is 43, Min score is 24, Max score is 78:
For course 2: Average is 50, Min score is 6, Max score is 85:
For course 3: Average is 53, Min score is 13, Max score is 96:

Enter a student id between 1 and 6: 2
```

```
Student 2 passed from course 1
Student 2 passed from course 2
Student 2 got the top score from course 2
Student 2 failed from course 3

>> hw1
Grades of students
G =

    49    27    29
    10    53    47
    96   100     3
    80    78    17
     5    17    90
    17    17    91

For course 1: Average is  43, Min score is 5, Max score is 96:
For course 2: Average is  49, Min score is 17, Max score is 100:
For course 3: Average is  46, Min score is 3, Max score is 91:
Enter a student id between 1 and 6: 5
Student 5 failed from course 1
Student 5 failed from course 2
Student 5 passed from course 3

>>
```

Note:

Write all your solutions in one file called hw1.m. Submission is by uploading your hw1.m project file to LMS. No other methods accepted. You may resubmit as many times as you want until the deadline. WARNING: This homework is an individual assignment. Any act of cheating will be punished. DO NOT GIVE/TAKE YOUR HOMEWORK TO/FROM OTHERS.