BIRZEIT UNIVERSITY

Engineering and Information Technology Faculty
Computer Science Department
Comp231-Advanced Programming

Assignment1:

Deadline:Saturday 16/10/2021 before midnight.

Objectives:

1. Process Array of objects and Java concepts (Chapter1- Chapter 8)

Note: YOU CAN'T USE ANY OTHER CONCEPT OUTSIDE THIS CHAPTERS (WILL NEVER BE GRADED).

Write a Java program that does the following:

Write a Java program that does the following:

1. In the main() method complete the following:
   1. Ask a user to enter the number of days that a patient has entered the hospital (i.e 5 days)
   2. Ask the user to enter the number of times that nurse read the temperature of the patient in Celsius (3,4, 5, time, or even more)
   4. Ask the user to enter the temperature that was read by the nurse and store each temperature in the array.
   5. If the user enters a temperature below 30 C or above 45C, then display an error message and keep looping till the program gets the right.

2. Write just one method (**Summary**) that called from the main method and return average, maximum, and minimum of temperatures. Print the result on screen from the main method.
3. Call another method call it **countbelowAboveAverage** that will return a number of temperatures less than or equal to the average of temperatures, and the number of temperatures above the average.
4. Call sorting method (**sortArray**) that will sort the temperatures (per day) in ascending order during all days store it in a new 2D dimensional array and return it to main.
5. Call **printArray** method to print the sorted array on screen.
6. Call a method (**leaveHospital**) that will return yes he/she can leave or no, he/she can't leave, to check if he/she can leave the hospital. He/she can leave only if the average for last two highest read temperature was around normal (35.5-36.5 C).

Sample:

Days	#of Readings	Actual Reading Per Day (in Celsius)			
1	4	40.5	41	39.8	38.7
2	5	41.2	41.3	40.7	40.8 41.3
3	5	40.9	38.5	38.9	40.1 39.8
4	3	38.2	38.2	37.9	
5	2	37.5	37.2		

Set of instructions:

1. Create folder at your desktop with your Assignment#, ID, and your name

   Example:A2_1190100_AliMohammad

2. Create a new project using Eclipse IDE and store your project inside this folder.
3. **Zipped** this folder and submit it by your ITC account [under meta course].

Specification Submission:

1. Online through ITC.

*2. What to submit: Your own well-structured and **well-commented** JAVA files (.java)*

3. into a student Id_sec#.rar file, e.g. 120dddd_sec1.rar).

Grading policy and general notes on the Assignment:

1. Your application should have all functionalities working properly. Twenty percent of marks will be graded for the functionality of the assignment.
2. The following notes will make up the remaining 10 marks of the grade:
   a. There has to be adequate documentation and comments in the code(i.e., functions, loops, etc.);
   b. Your code should follow the code convention (i.e., spaces, indentations,etc.); and
3. Any plagiarized code will not be marked.
4. ANY LATE Assignment will never be accepted for any excuse.

Types of cheating:

Types of cheating:

1. **Getting codes form outsource, like books, internet.**
2. **Cheating from any classmate.**
3. **Trying to get answers from any website.**
4. **Trying to get answers from the Facebook groups or from any social media.**
5. **Trying to get answer from Chegg website or other similar to it.**

Good Luck!!