Question 1:

Create a Java FX GUI application that takes the data (Name, Id and CGPA) of **multiple** students as input and shows the following:
* Name, Id and CGPAs of all the students (whose data was entered)
* Name and Id of the students with the **highest** and **lowest** CGPA.

Your GUI should contain the following components:

- 3 TextFields for input (Name, ID, CGPA)
- 2 Buttons. Clicking the **first button** should read the student data provided in the TextFields and store the data internally. This button should be used multiple times to enter multiple students data.
  Clicking the **second button** should show the output (as described below).
- 1 label (or TextArea) for showing the Name, Id and CGPA of **all** the students
- 1 Label for showing the names and ids of the students with the highest and lowest CGPA.

Read the submission instructions carefully.

Hint: You can use Array / File to store the students data.

Note: Codes will be **cross checked for plagiarism**. Suspected plagiarized codes will be given 0. So do not share your code with anyone.

Submission Instruction: You have to submit the contents of the files **Controller.java** and **sample.fxml** in a text file. Provide titles at the top of the codes stating file names and put ample gaps between the two different codes. Submissions must be readable codes with proper indentation.

Question 2:

Create a Java FX GUI application that takes the exam marks of a student and calculates his/her grade.

The grades are calculated using the following rules:

- 6 quizzes are taken, each containing **20 marks**. **Best 3** quiz marks are counted and converted to **40 Marks**. [6 TextFields needed for input]
- Attendance contains **5 marks**. [1 TextField needed for input]
- Assignment contains **10 marks**. [1 TextField needed for input]
- Mid contains **20 marks**. [1 TextField needed for input]
- Final contains **25 marks**. [1 TextField needed for input]

Total marks = 100

The GUI also contains a calculate **Button** and a **Label**. When the button is clicked, the Grade is calculated (Using the total marks of the student) and **shown in the label**. The grade is calculated using the following rules:

Letter Grade	Marks %	Grade Point	Letter Grade	Marks%	Grade Point
A (Plain)	90-100	4.00	C+ (Plus)	70-73	2.33
A- (Minus)	86-89	3.67	C (Plain)	66-69	2.00
B+ (Plus)	82-85	3.33	C- (Minus)	62-65	1.67
B (Plain)	78-81	3.00	D+ (Plus)	58-61	1.33
B- (Minus)	74-77	2.67	D (Plain)	55-57	1.00
			F (Fail)	<55	0.00

Read the submission instructions carefully.

Hint: Use integer sorting for finding the best 3 quiz marks. (https://www.tutorialspoint.com/java/util/arrays_sort_int.htm)

Note: Codes will be **cross checked for plagiarism**. Suspected plagiarized codes will be given 0. So do not share your code with anyone.

Submission Instruction: You have to submit the contents of the files **Controller.java** and **sample.fxml** in a text file. Provide titles at the top of the codes stating file names and put ample gaps between the two different codes. Submissions must be readable codes with proper indentation.

Submission Example:

File "Question 1.txt" contents:

```
Controller.java
.....
.....
.....
… rest of the Controller.java codes


sample.fxml
.....
.....
.....
..... rest of the sample.fxml codes
```

File "Question 2.txt" contents: Same as above.