OOM Assignment 5

Note:

- The evaluation date/time and submission format will be intimated separately and may not be during the lab hours

1. The OOM Mid-Semester copies are to be shown and your role is to provide a good kiosk for the student and the instructor for the same. The following are the features that you need to implement using a GUI.

- Read an initial CSV of student attendance that gives the roll number and marks associated with every roll number (this will be supplied).
- Read a CSV of marks for every question that marks the roll number and marks associated with a question (this should be randomly generated by you)
- In the student version, on entering the roll number, the marks of a student are displayed.
- In the instructor version, on entering the roll number, the marks of a student are displayed and those are editable. The initial view will be read only, and on clicking an "edit", the fields will be editable that can be saved by a "save" button.
- In both versions, all marks of all students are available as a table. The user can sort the displayed marks by roll number, by marks in a particular question, or by grand total. Only *n* rows are displayed at the screen, with an option to traverse back and forth by next and previous buttons.
- A summary page gives the mean/median/max/min marks for every question and grand total.
- A student may have taken OOM as a "add on" course who may not be in the attendance list. The instructor can add such a student. Similarly, a student may have "dropped" the OOM course after the mid-sem. The instructor can delete such a student.

2. Taking only 2D figures and the classes created in the same hierarchy as the mid-semester, implement the draw function where the draw function will draw the graphics. Every figure will be associated with a position as well to control where will it be drawn. (unlike mid-semester, you may ignore rotation). Your GUI should have the following features:

- Add a new shape from the menu. The menu entry will also give options of various shapes possible.
- After insert, the shape should be dragged to a place using the mouse. Dragging will move the current figure only.
- On pressing a dedicated key (your wish) the size should be increased and similarly with another key, the size should be decreased. Different figures may have different or same size controls.
- The shape may also be moved by a key combination from the keyboard.
- An object may be selected to be the current figure by clicking on it (or by clicking near its centre).
- Another key should be reserved for deleting the selected/last shape.