Lab Assignment Five - CIS*2430 (Fall 2021)

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Create a Graphical User Interface (GUI) for the Student Class Management System that has been developed so far in the labs.

- The GUI should be implemented using the Swing and AWT packages directly, not any other GUI building tools.

- **ALL** functionality and implementation (code) from previous lab exercises will be needed for this lab exercise.

- Options available to the user are:

    Enter info about a new Student
    Enter info about a new GraduateStudent
    Print out all student info.
    Print average of student averages, as well as total number of students.
    Read input file.
    File Data output.
    Lookup via a HashMap key.
    End program.

While no interface is specified, two are suggested in the following. Two rows of buttons across the top quarter of the interface might represent the options above. The next quarter of the interface might be a text input area used for searches and inputting file names. Finally, the bottom half of the interface would be reserved for a large, scrollable text area where all output is presented.

Alternatively, the interface can be divided into a small left panel and a large right panel. At the bottom part of the left panel, we can place all the buttons for the options and the top part for the input information such as searches and input file names. The large right panel is reserved for the scrollable text area that displays all output information.

Note that these interface ideas are only suggestions and you are allowed to create your own designs as long as all the functionality is supported. For example, you could also organize all the options into multiple menus in a menu bar so that you can free up more space for inputting data and displaying output information.

The rubric for this lab assignment is intentionally vague. It is up to you to design a clean interface for the user to work with. Usability is part of the marking scheme, and as long your UI is intuitive you can achieve a maximum of 100% for this lab exercise.

Good Luck!

MARKING RUBRIC
10 Marks in total.
8 Marks for **all** options and the corresponding functionality from your GUI.
2 Marks for usability. Any difficulty in using the system may result in a penalty here.