Detailed Manual Test Plan for Project 1 - Sprint 4

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Graphical User Interface Test Plan

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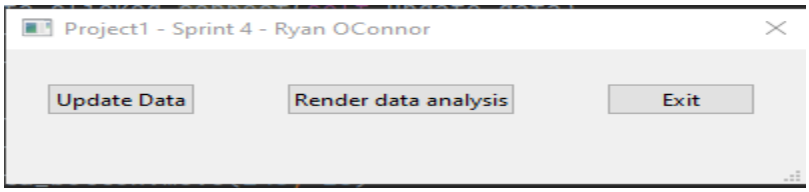
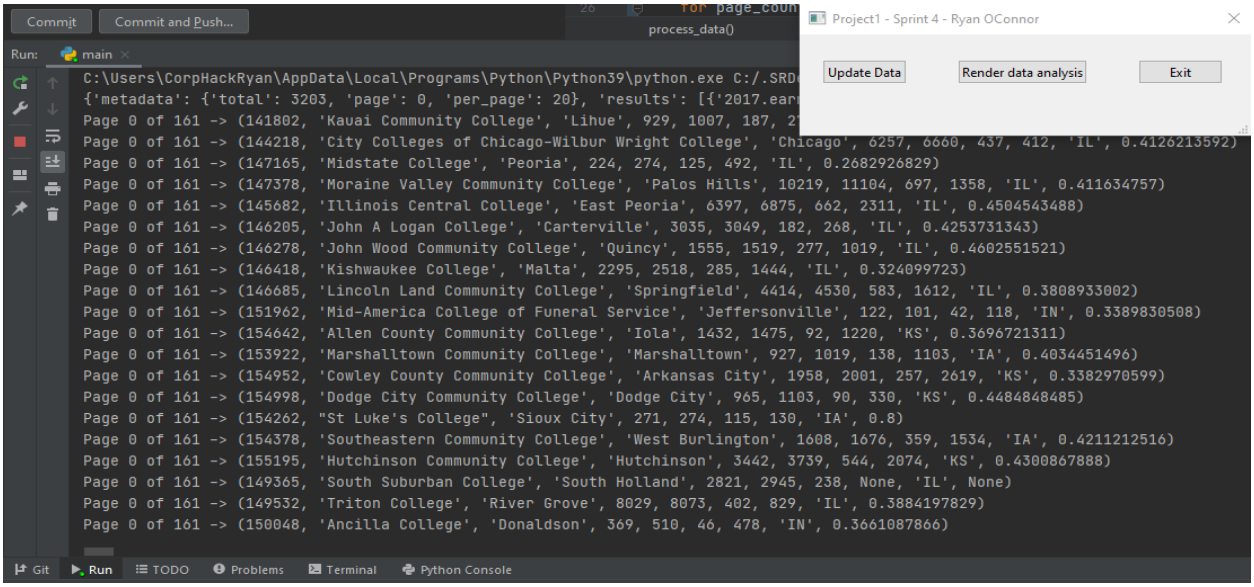
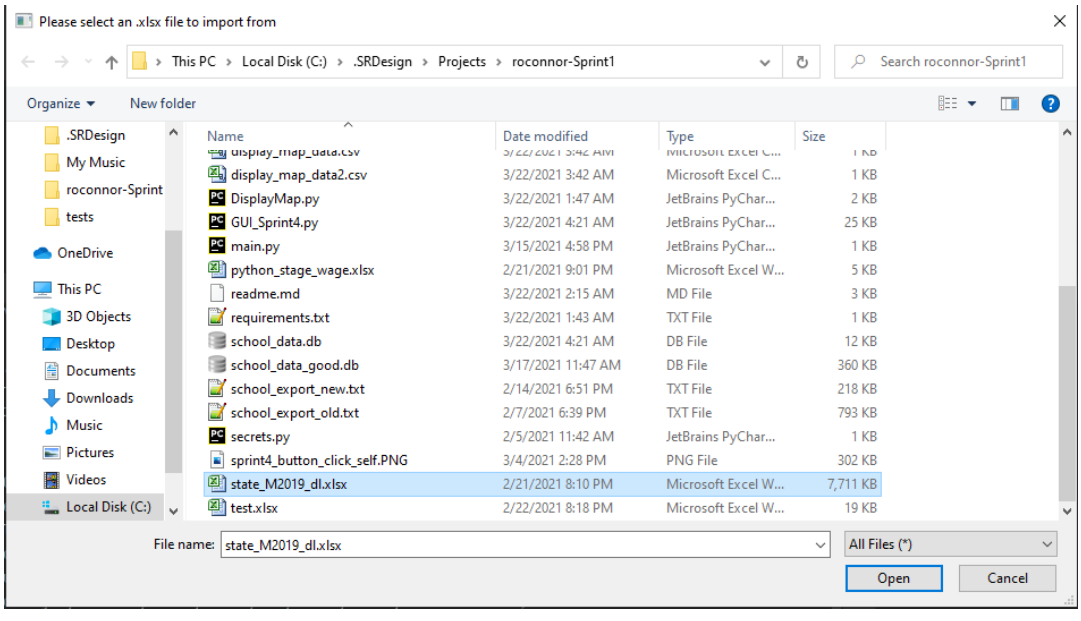
1. When the program is first loaded, it instantiates the GUIWindow(QMainWindow) class. This initial setup is responsible for setting up the main window, 3 buttons, updating the title bar, status bar, setting fixed geometry, adding functionality to each button when clicked and organizing the buttons on the main window.



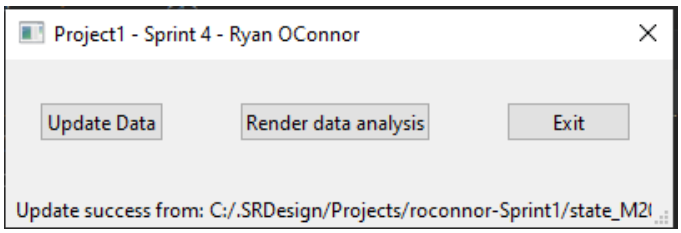
2. When the update data button is invoked, it creates a blank database with two tables, begins the process of collecting data from data.gov and storing it a local database.



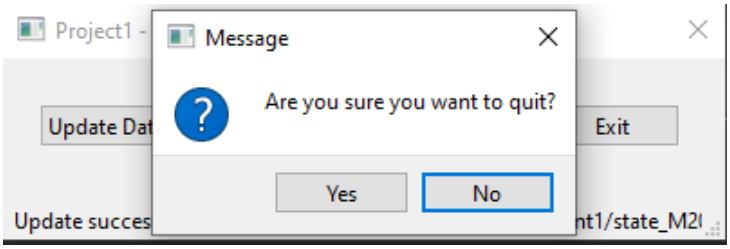
3. Once the data collection is complete, it will open up a file selection dialog from which you will select the excel file to update the database with.



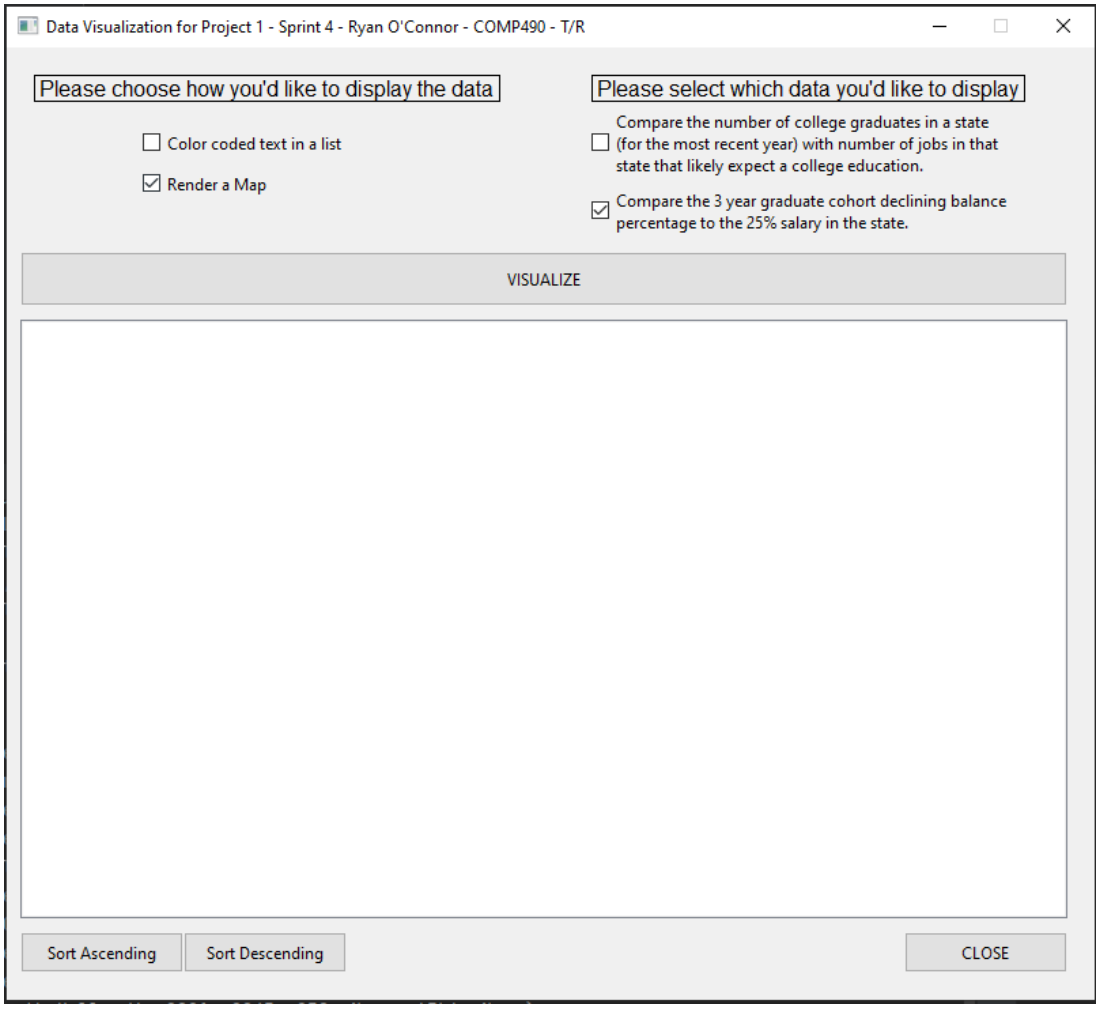
4. After the file has been selected, the program will then iterate through the excel sheet and import specific data into the database. Once that has completed, a message in the status bar will now appear stating the update was successful.



5. When you want to exit the program, you can either click the X button in top right hand corner or the Exit button on the main window. When you do click either button, a prompt will appear asking you if you'd like to exit. Clicking yes will close the application, while clicking no will bring you back to the main window.

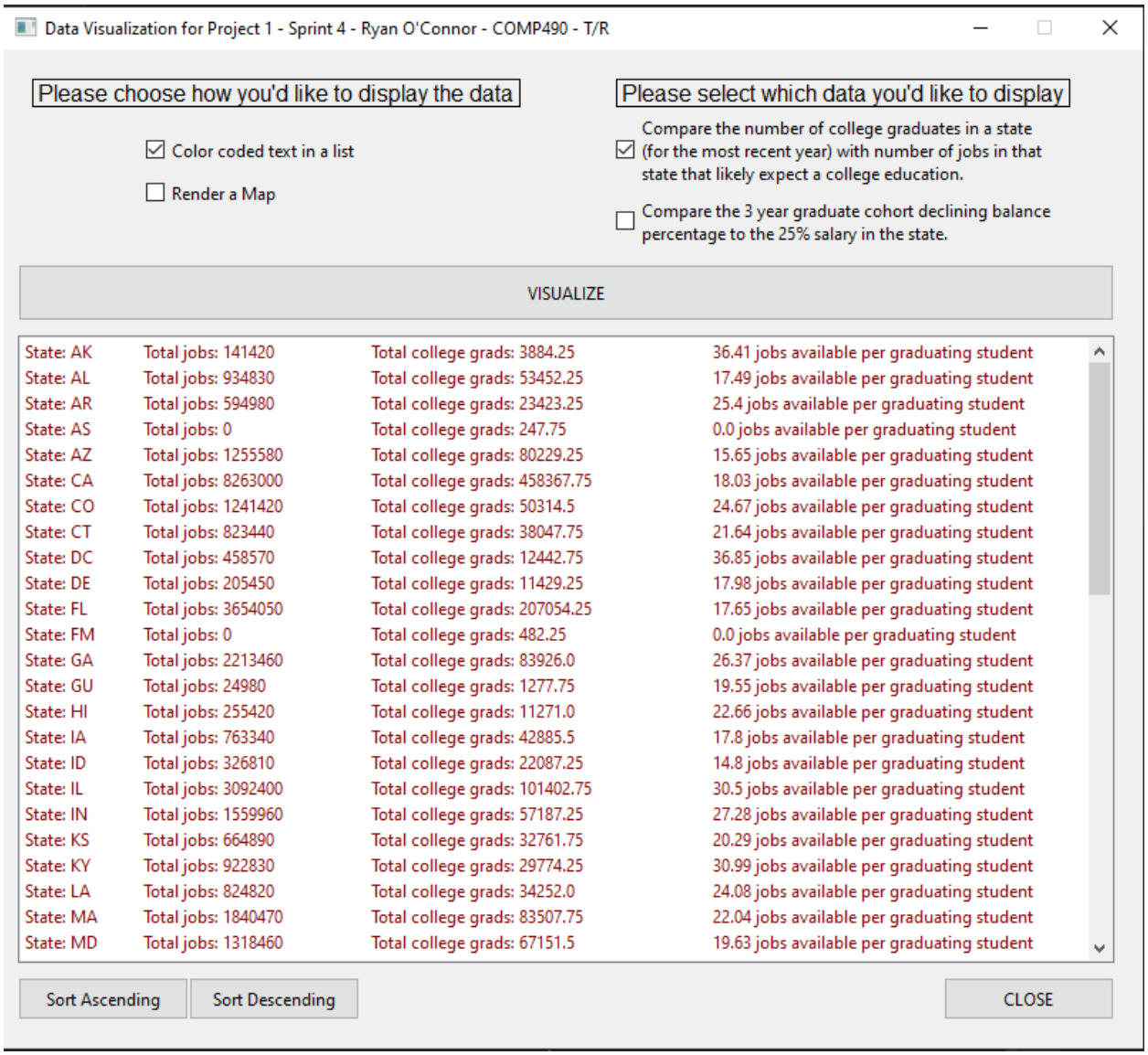


6. When you click the Render data analysis button, a second child window will appear. When this window is called the following objects are placed onto the window: two labels, four checkboxes, four buttons and a list box. Each object is labeled according to which action it is to perform.

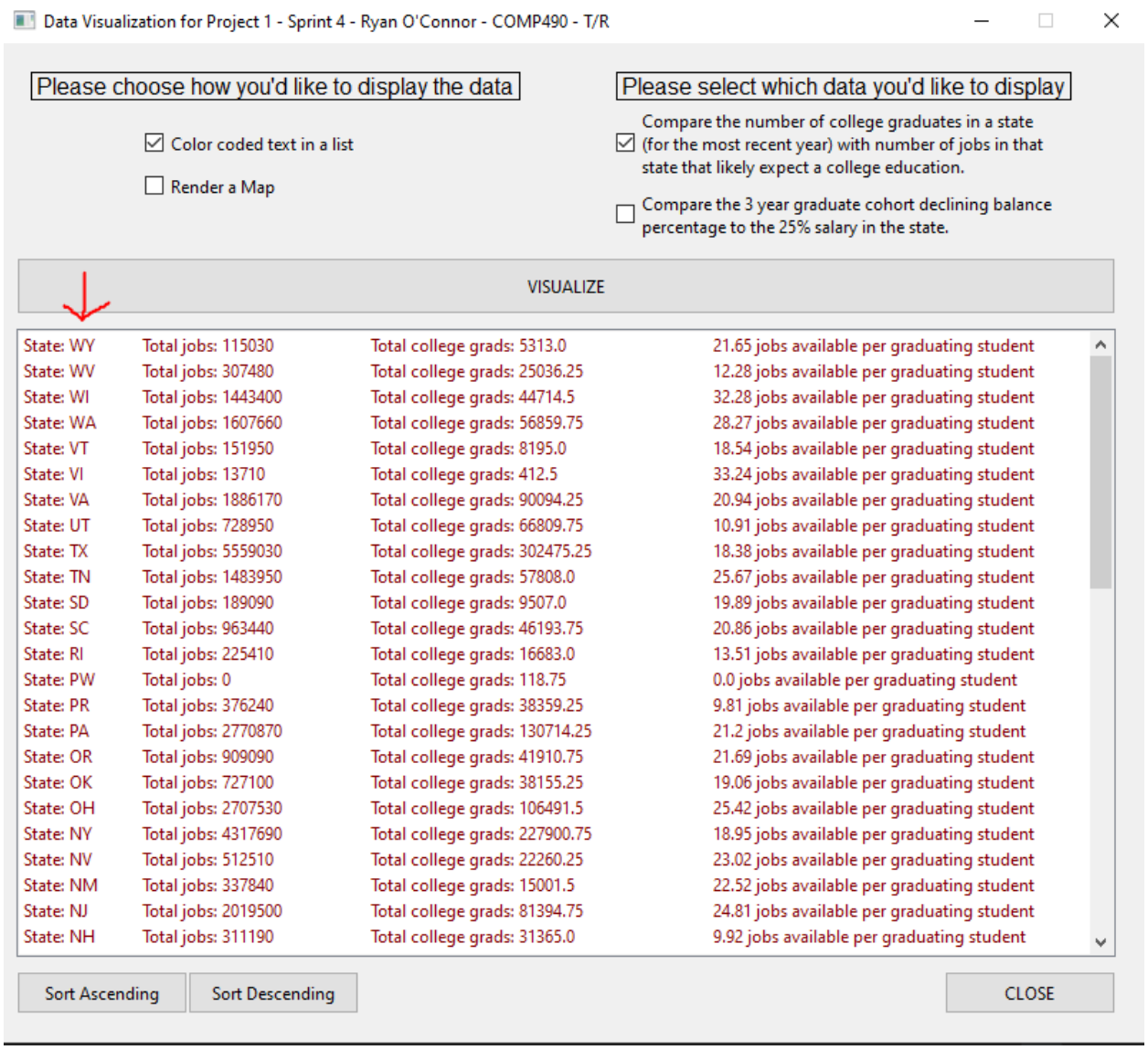


By default, the initialization assigns the toggle() function (making the checkbox checked) to both the Render map and compare 3 year grad cohort checkboxes. Since we can only have one option on either side, when you click on one box, the other one becomes unchecked. For instance, if you click on the render a map checkbox, the color coded text in a list box will stay unchecked. If you click on the color coded text in a list, then the render a map button becomes unchecked. Only one of these can be checked at a time. The same applies on the right side for the data that you'd like to display.

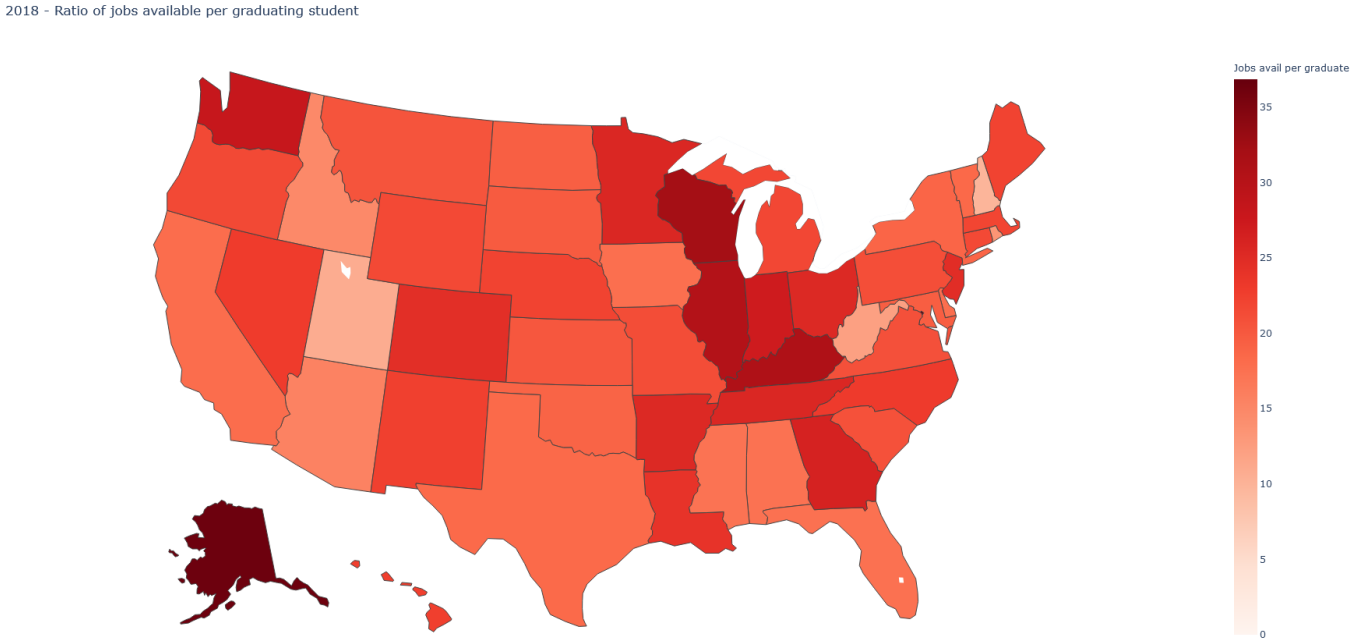
7. Once you've decided on how you'd like to display your data and what type of data you want to display, the next step is to click the visualize button. When the visualize button is clicked, it tests the checkboxes to see which ones are checked (.isChecked()) function) and displays the data accordingly. So for instance, if we selected color coded text in a list with the number of college grads in a state option, the list box would populate with all the data we received and combined to get those numbers. By default, the list is sorted ascending.



8. Once the data is displayed, you have the option of sorting the list by ascending or descending order simply by clicking on either button located at the bottom of the list box. The list is sorted by descending below.



9. When you select the render a map checkbox, the same data will be represented on a United States map in a choropleth styled map. Simply click on the render a map checkbox, select which data you would like to display and click on visualize. The map will open up in a browser with the data you have chosen to represent.



10. When the close button is clicked, the child window disappears and you are brought back to main window, where you can update the data and select a different excel file if needed.