I designed my final project using PyQt5. I navigated many challenges from originally setting up a virtual environment or a venv, to figuring out how to use .qrc resource files for my images. A .qrc file creates an XML file that gets stored as a .qrc for each image, then all .qrc files had to be combined into one resource.qrc file using Notepad++, after combining everything into one file, the resource.qrc had to be converted to resource.py file, Next the resource.py had to be imported into the dependent window. I built my GUI calculator by hand one button at a time, I added functionality to meet the requirements for the final project using top-down design. As of this writing the calculator was not yet fully functional but almost. I have a main window called TurnerChrisFinalProject.py from there you have 3 options, 1 option is to push a button that opens a window displaying my images, there is a window exit button. The 2nd option you can select the calculator, it is a working GUI, I added logic to build out the calculator and added a clear and exit button, I also included the Try, Else statement to give an error for the few features that did not work. The 3rd option just takes you to an image of the Schema that shows how PyQt5 works with Python, it also has an exit button. I had to define functions to open each window in the MainWindow logic, use lamda functions to trigger the buttons. The app is self-explanatory, the code is documented, and should meet all the criteria. There is a lot more that I could incorporate to make the app even better. But you will notice that I included my .ui files. I learned that while working with PyQt5 that once you convert your .ui files to .py, it is hard to go back and change the original design, it resets the code. I did it several times, but each time I had to rewrite any functions and logic to connect to other windows. Each time it gets easier and better, but a solid top-down design from the beginning would be the best.

Here is a GitHub link to my files:

<https://github.com/Topher1967/SDEV_140_Turner_Chris_Final_Project>