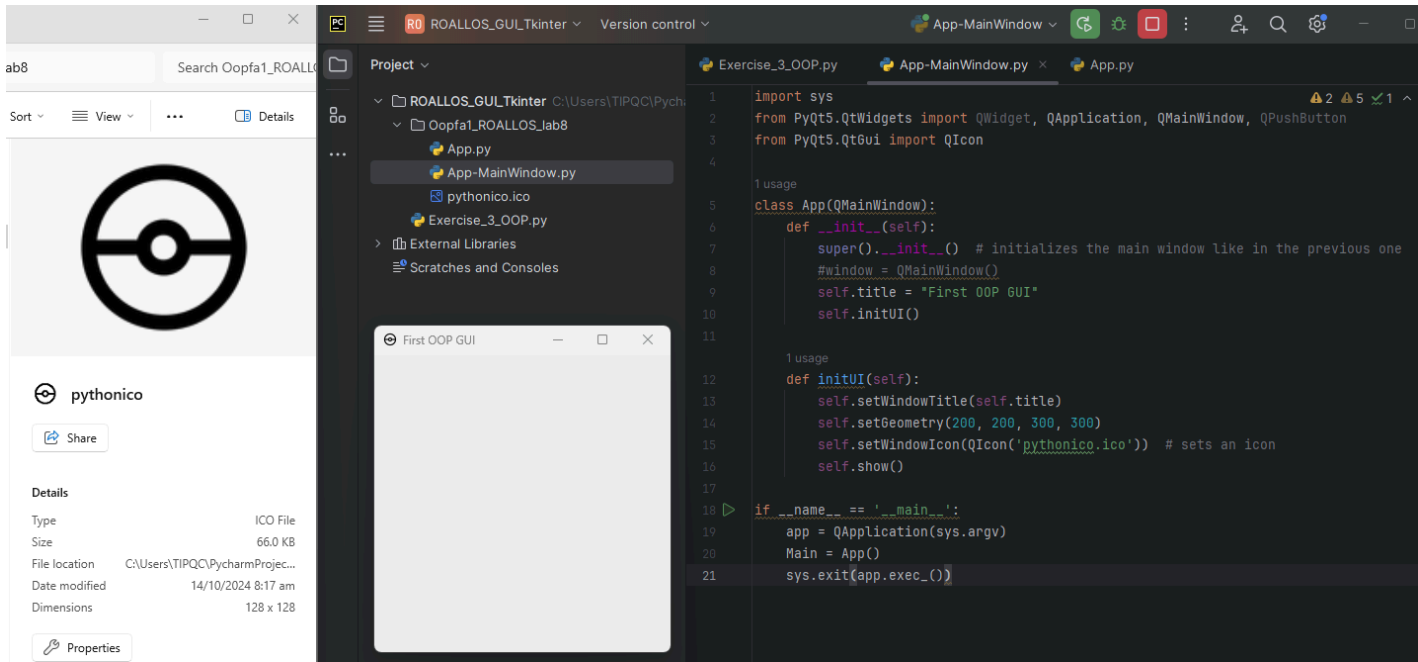
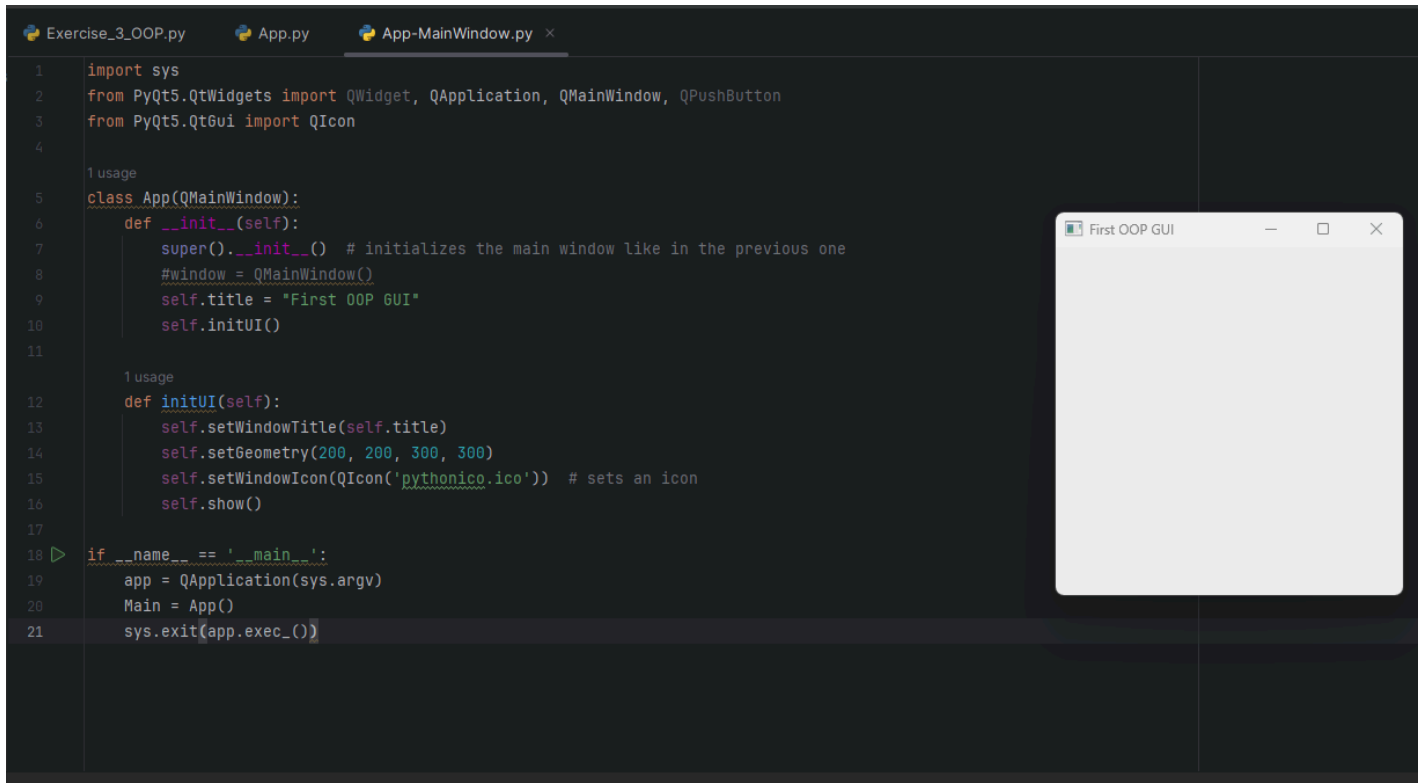
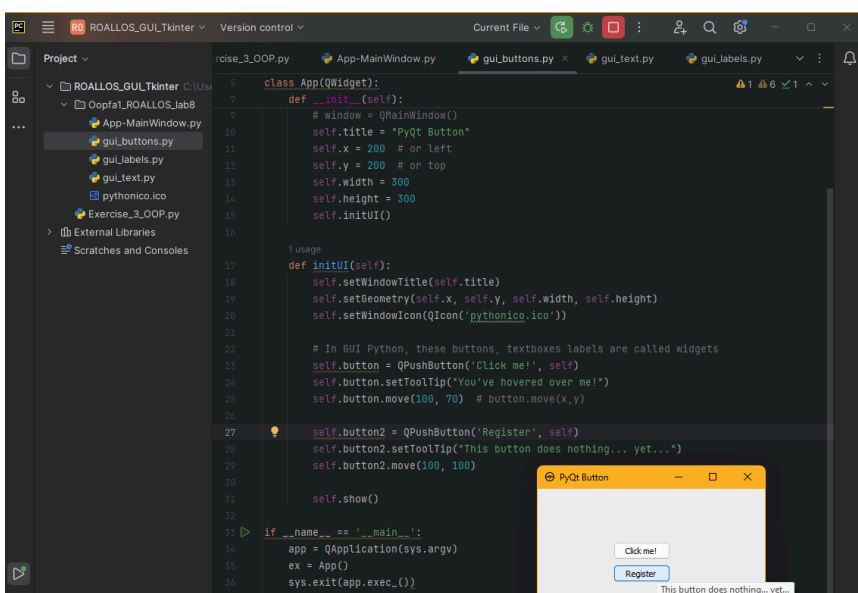
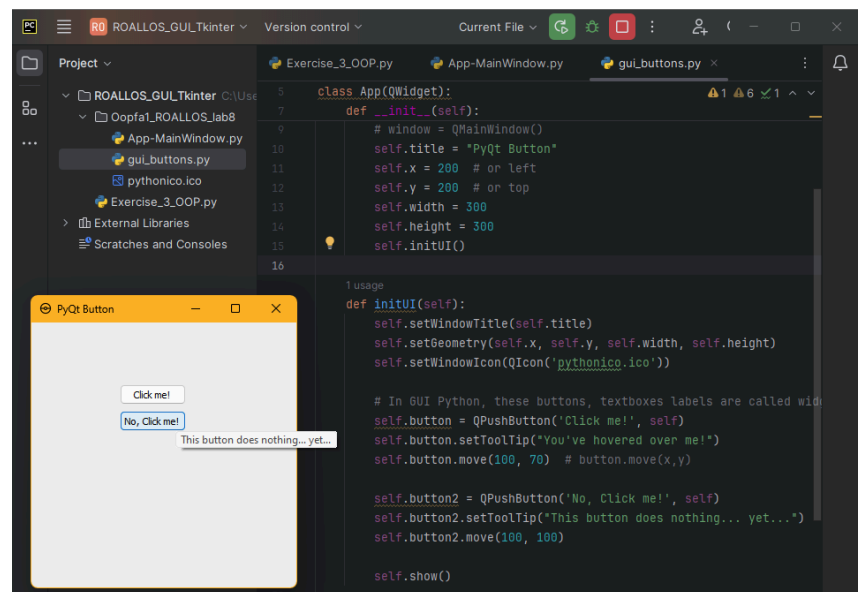
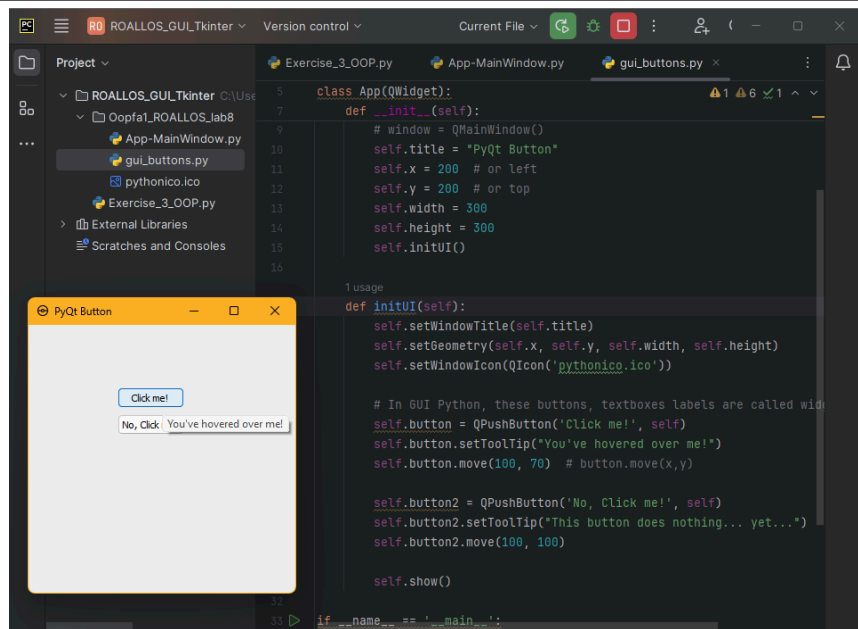
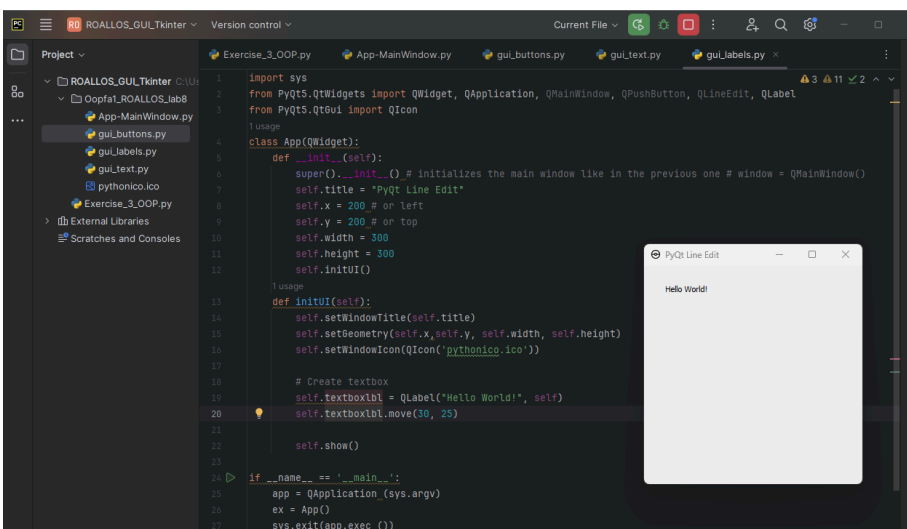
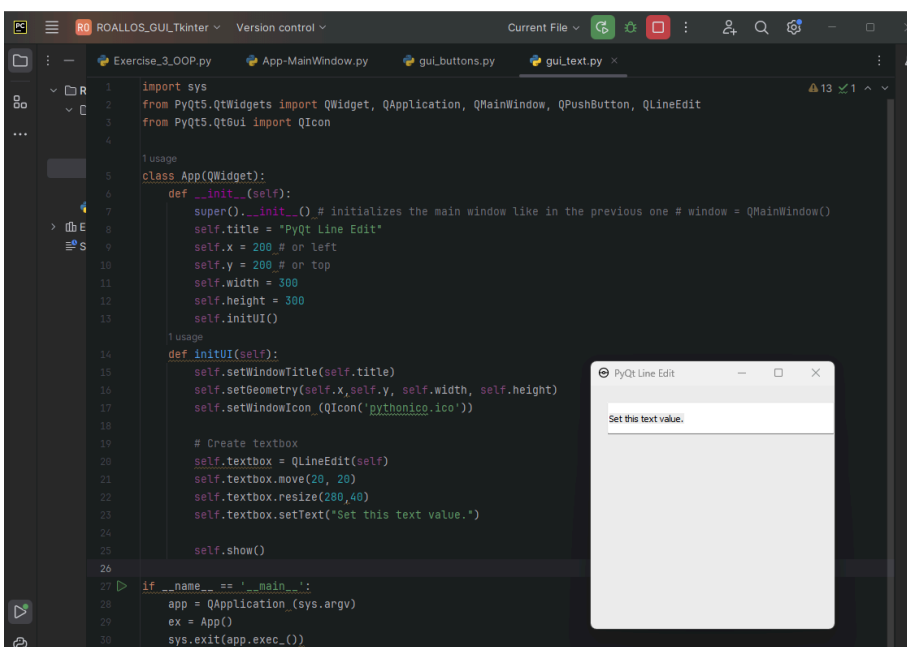
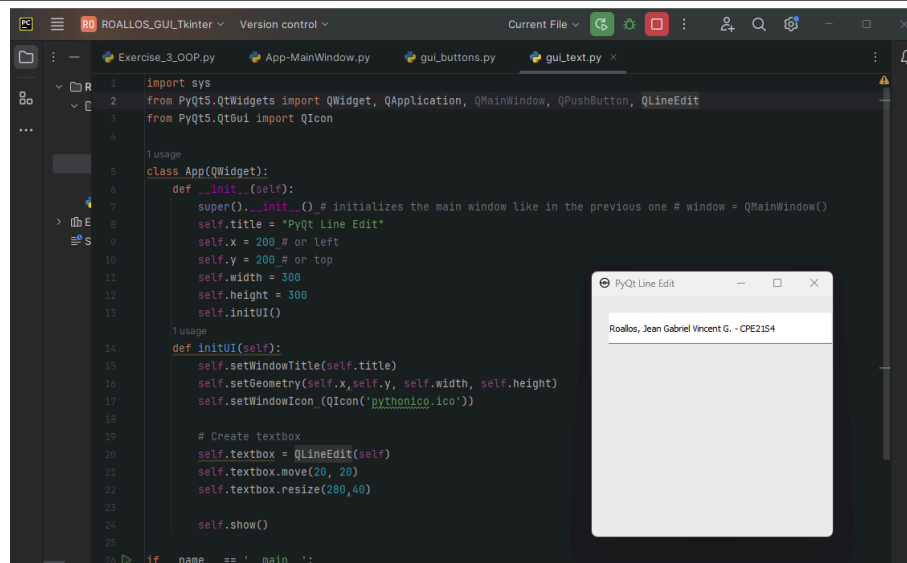


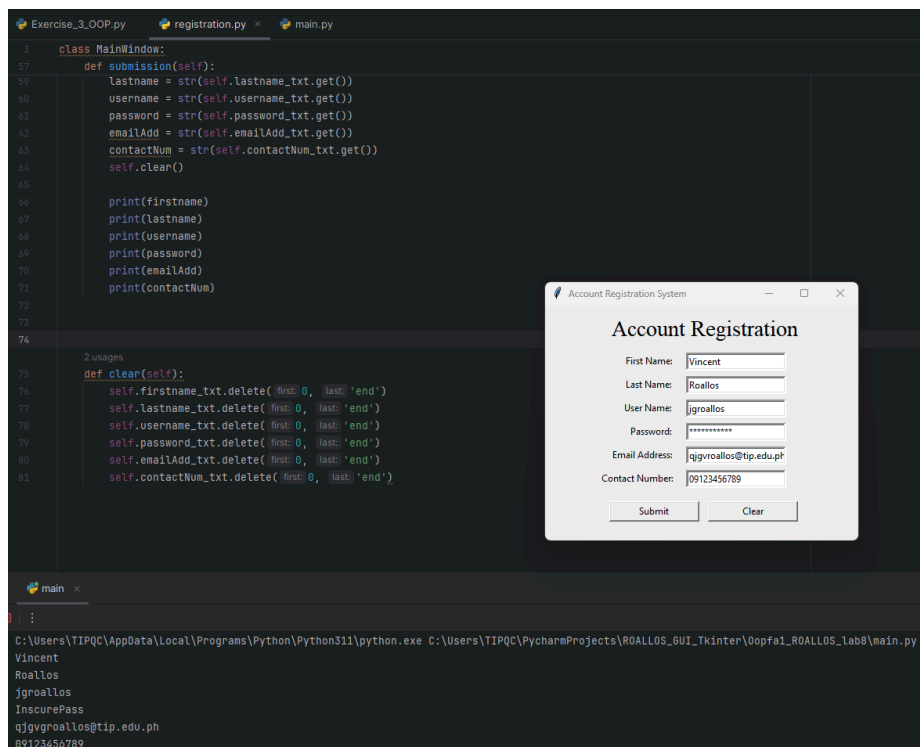
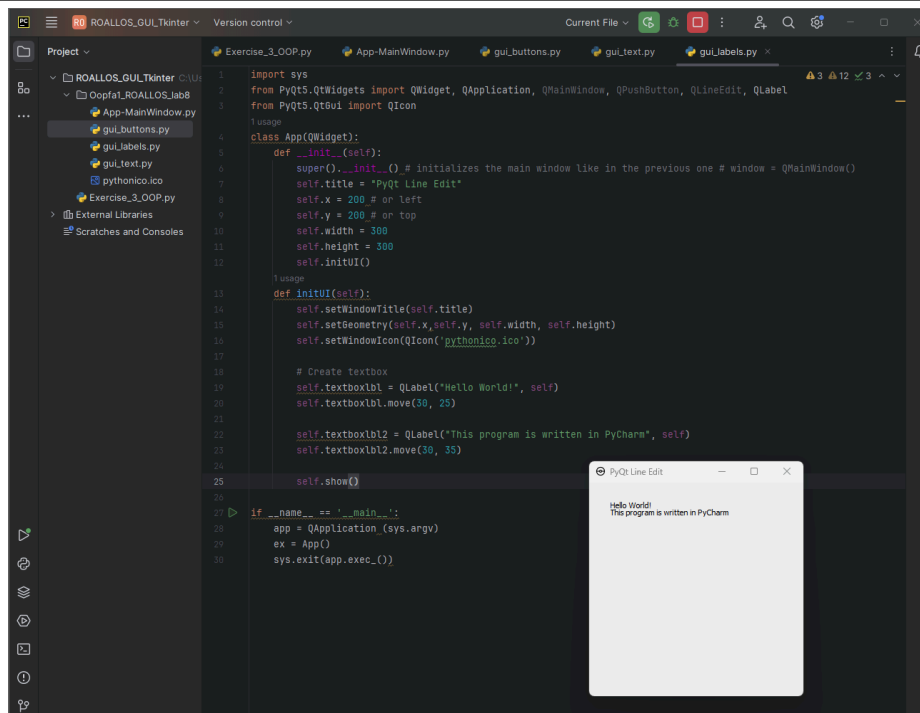
Laboratory Activity 4	
Introduction to GUI Development using Pycharm	
Course Code: CPE010	Program: Computer Engineering
Course Title: Object-Oriented Programming 2	Date Performed: 10 / 14 / 2024
Section: CPE21S4	Date Submitted: 10 / 14 / 2024
Name(s): ROALLOS, Jean Gabriel Vincent G.	Instructor: Prof. Maria Rizette Sayo

Documentation









6. Supplementary Activity

Questions

1. What are the common GUI Applications that general end-users such as home users, students, and office employees use? (give at least 3 and describe each)

Windows, Google Chrome, and Facebook. Windows is a type of operating system (OS) that utilizes a GUI to be navigated by an end-user. Google Chrome, on the other hand, is a type of a browser application installed into a PC to be able to navigate through the web. Lastly, Facebook is a web-based social media platform application that also uses GUI to create interactions between users and the content they see.

2. Based on your answer in question 1, why do you think home users, students, and office employees use those GUI programs?

Applications that have GUI tend to be easier to use and navigate. With the help of various icons, it can easily guide users through the application. When compared to CLI, CLI may seem subjectively harder to navigate because of only having a nearly blank screen. CLI relies on the knowledge and expertise of the user to be able to navigate through it.

3. How does Pycharm help developers in making GUI applications, what would be the difference if developers made GUI programs without GUI Frameworks such as Pycharm or Tkinter?

PyCharm as an IDE for Python, includes several libraries that could help in developing programs and as well as its appearance. It would be very difficult for developers to not use GUI frameworks as they would essentially make their own version of those libraries. Other than that, their program would entirely rely on CLI.

4. What are the different platforms a GUI program may be created and deployed on? (Three is required then state why might a program be created on that specific platform)

GUI can be implemented in desktop, mobile, and web-based. Desktop and mobile GUI applications utilize the resources and processing power of their respective devices to perform their tasks efficiently, whether on or offline. Web-based GUI applications on the other hand are apps based online that require constant connection to the internet to frequently update new content within its page.

What is the purpose of `app = QApplication(sys.argv)`, `ex = App()`, and `sys.exit(app.exec_())`?

This string of code initializes the app with the use of the PyQt5 library. QApplication is a syntax within the imported library, App is a class created that contains the app, its functions, and GUI. app.exec_() is responsible for handling the app and its processes during user inputs, while sys.exit() terminates the app properly and return an exit code to the operating system.

7. Conclusion

In conclusion, I have learned more about creating GUI applications based on the PyQt and Tkinter libraries within the Python programming language. I have also been made aware by this experiment on other modifiers that can be used for the elements within the GUI.

8. Assessment Rubric