Laboratory Activity No. 10

The Selection Widgets using Pycharm

Course Code: CPE103	**Program:** BSCPE
Course Title: Object-Oriented Programming	**Date Performed: 3/22/2025**
Section: BSCPE 1-A	**Date Submitted: 3/22/2025**
Name: PALMES, LEWIS CLAARK L.	**Instructor:** ENGR. MARIA RIZETTE SAYO

1. Objective(s):

This activity aims to familiarize students with the Pycharm framework and selection widget

2. Intended Learning Outcomes (ILOs):

The students should be able to:
2.1 To create a Python program that use selection widget like Combobox
2.2 To use ttk function as part of Tk ( ) in the Tkinter module

3. Discussion:

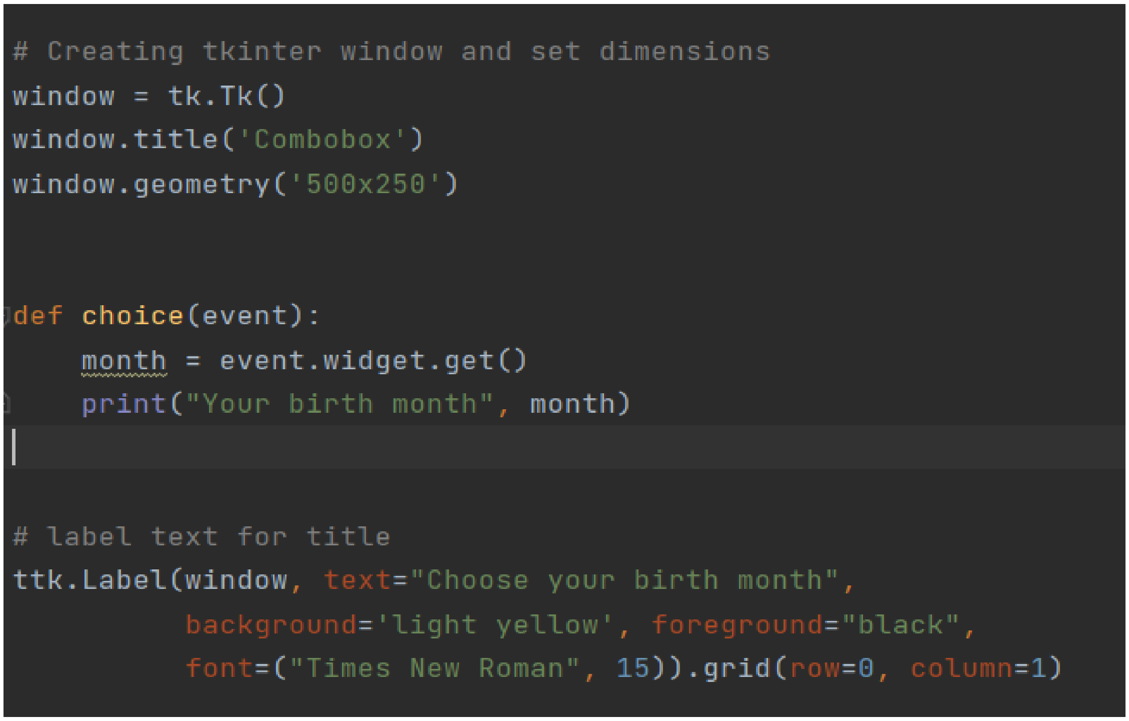
A Graphical User Interface (GUI) application is a program that the user can interact with through graphics (windows, buttons, text fields, checkboxes, images, icons, etc..) such as the Desktop GUI of Windows OS by using a mouse and keyboard unlike with a Command-line program or Terminal program that support keyboard inputs only.

Pycharm is an integrated development environment used for programming in Python. It provides code analysis, a graphical debugger, an integrated unit tester, integration with version control systems, and supports web development with Django.

4. Materials and Equipment:

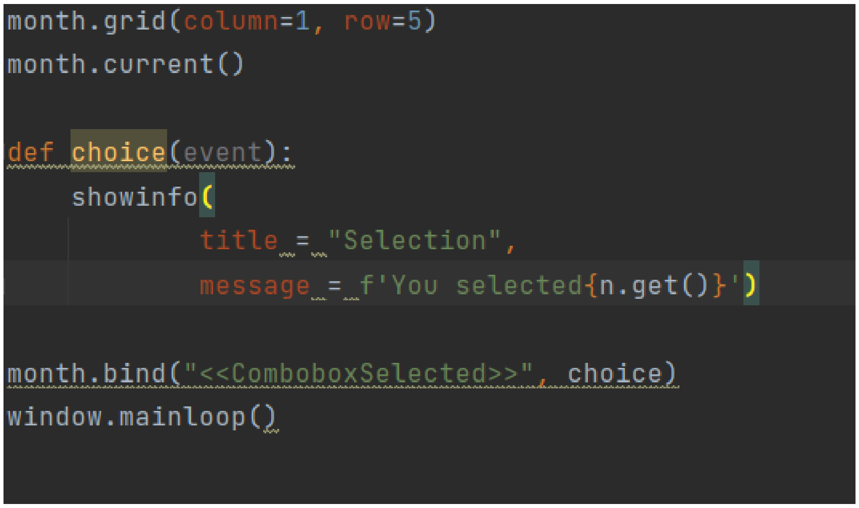
Desktop Computer with Anaconda Python or Pycharm
Windows Operating System

5. Procedure:



```python
# Creating tkinter window and set dimensions
window = tk.Tk()
window.title('Combobox')
window.geometry('500x250')


def choice(event):
    month = event.widget.get()
    print("Your birth month", month)


# label text for title
ttk.Label(window, text="Choose your birth month",
          background='light yellow', foreground="black",
          font=("Times New Roman", 15)).grid(row=0, column=1)
```

1.

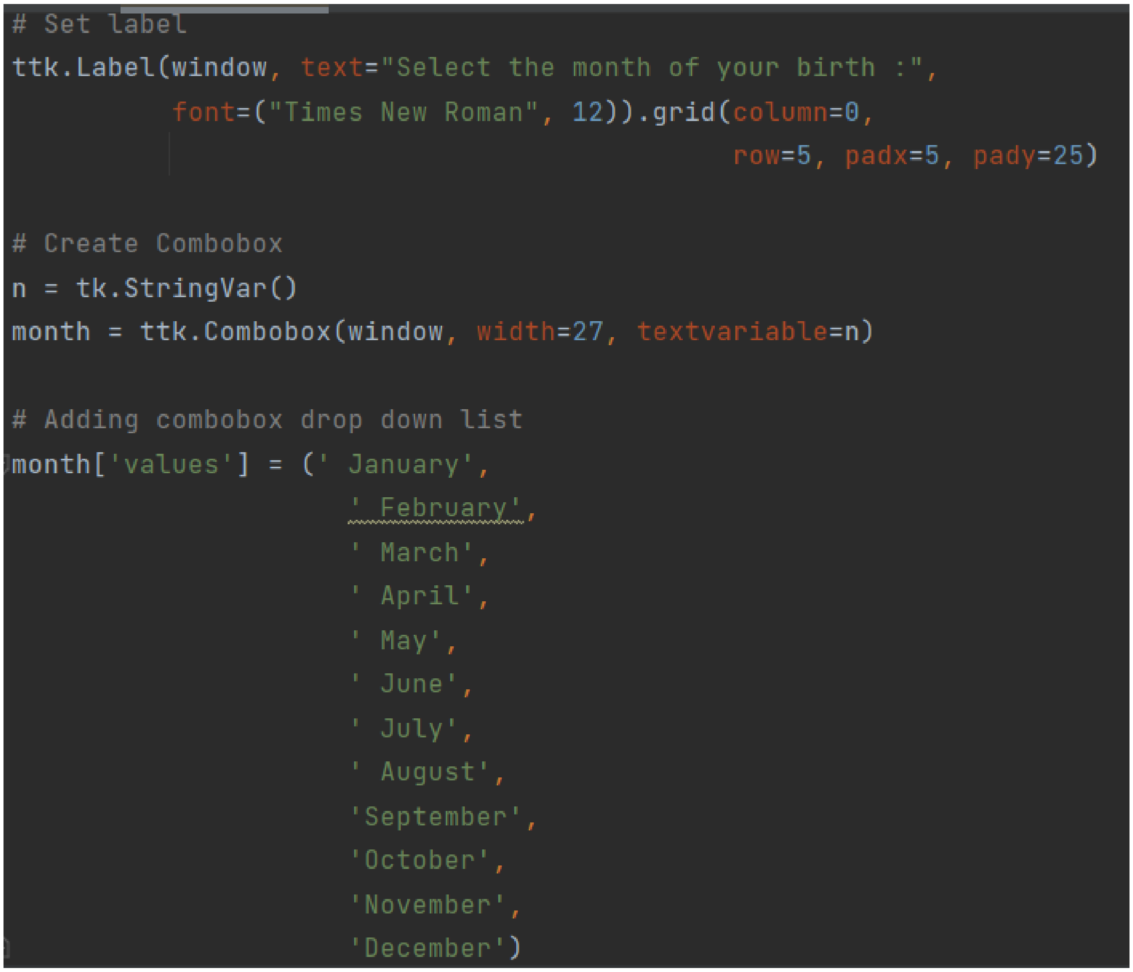


```
month.grid(column=1, row=5)
month.current()

def choice(event):
    showinfo(
            title = "Selection",
            message = f'You selected{n.get()}')

month.bind("<<ComboboxSelected>>", choice)
window.mainloop()
```

2. Run the program and observe the output.

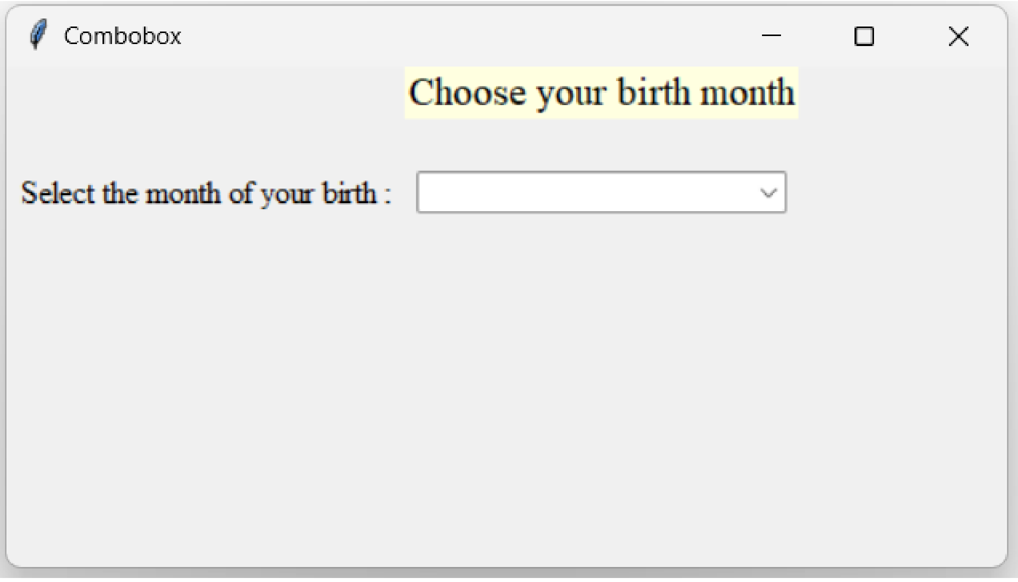
Adding an icon

3. Download any .ico picture from https://icon-icons.com/ or any similar sites.
4. Place the icon in your folder (ex. Oopfa1<lastname>_lab10)



```
# Set label
ttk.Label(window, text="Select the month of your birth :",
          font=("Times New Roman", 12)).grid(column=0,
                                             row=5, padx=5, pady=25)

# Create Combobox
n = tk.StringVar()
month = ttk.Combobox(window, width=27, textvariable=n)

# Adding combobox drop down list
month['values'] = (' January',
                     ' February',
                     ' March',
                     ' April',
                     ' May',
                     ' June',
                     ' July',
                     ' August',
                     'September',
                     'October',
                     'November',
                     'December')
```

5. Run the program again, the program should now have an icon similar to the program below.



Combobox

Choose your birth month

Select the month of your birth :

6. Supplementary Activity:

Task

1. Create label widgets below to label your birth date <dd>, birth year <yyyy>
2. Create combobox to drop down your birth date <dd>, birth year <yyyy>
3. Create another method to show info about your birth date <dd>, birth year <yyyy>

Note: You may also use additional selection(listbox, radio button, check button) or common widgets to improve the design of your GUI.

PLEASE REFER TO THIS LINK: CPE-103-OOP-1-A/LAB ACT 10/SUPPLEMENTARY 10.py at main · Lewis-Clark-Palmes/CPE-103-OOP-1-A

Questions

1. What are selection widgets?

   Selection widgets are tools in a GUI that let users choose from options, like dropdowns, checkboxes, or radio buttons. They make interacting with applications easier and more intuitive.

   ____

2. Which Python libraries provide selection widgets?

   Libraries like Tkinter, PyQt, and Kivy provide selection widgets. Each has unique features for building user-friendly interfaces.

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   ____

3. How do selection widgets enhance user interaction in GUI applications?

   They simplify input by offering predefined choices, reducing errors, and making apps more efficient and visually appealing.

7. Conclusion:

Selection widgets play a vital role in GUI applications, as they simplify data entry, enhance usability, and improve the overall user experience. By integrating libraries such as Tkinter and PyQt, developers can create efficient and interactive interfaces tailored to specific needs. This lab activity highlights the importance of understanding and leveraging selection widgets to build robust and user-friendly applications. Pycharm further aids in this process by offering an integrated environment to develop, debug, and test GUI programs effectively.

8. Assessment Rubric: