Laboratory Activity No. 10	
The Selection Widgets using Pycharm	
Course Code: CPE103	**Program:** BSCPE
Course Title: Object-Oriented Programming	**Date Performed:** 3/22/25
Section: 1-A	**Date Submitted:** 3/22/25
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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:

PLEASE REFER TO THIS LINK FOR ALL MY ANSWERS https://github.com/Bryan-Villanueva/CPE-103-OOP-1-A/tree/main/WEEK%2010

```
# 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

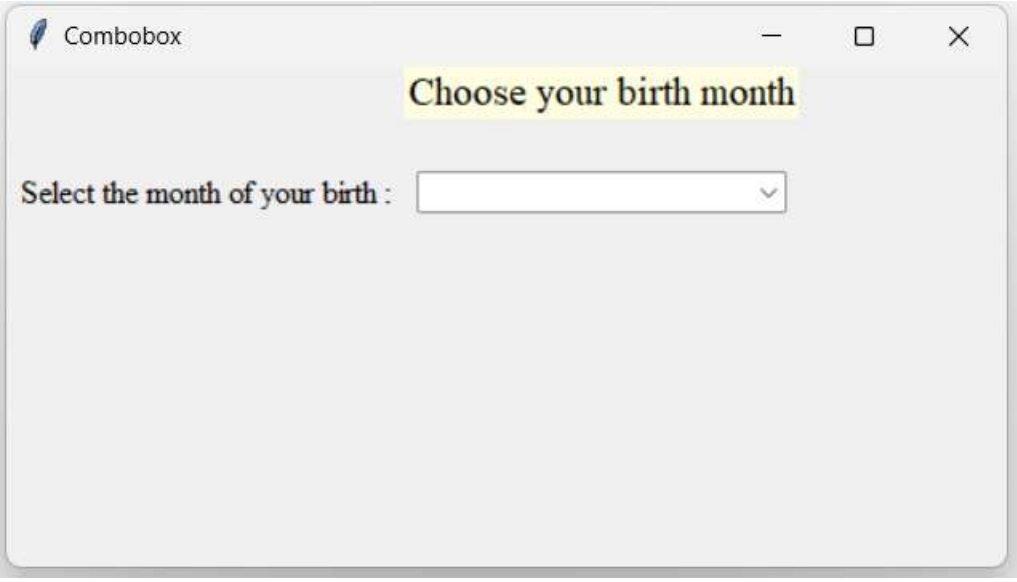
3. Download any .ico picture from https://icon-icons.com/ or any similar sites.
4. Place the icon in your folder (ex. Oopfa1<lastname>_lab10)

```
# 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.



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.

Questions

1. What are selection widgets?
   Selection widgets are GUI elements that let users choose from predefined options, like dropdown menus, checkboxes, or radio buttons.

2. Which Python libraries provide selection widgets?

   Popular python libraries include tkinter for combobox, listbox, radiobutton. pyqt for qcombobox, qlistwidget. kivy for spinner, dropdown.

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

They make input easier, faster, and error free by limiting choices to valid options. Users don't need to type manually, improving accuracy and experience.

7. Conclusion:

Through this activity, I learned how to use selection widgets like Combobox in Python using the Tkinter module. By working with PyCharm, I became familiar with creating GUI applications and using the ttk functions under Tk(). This exercise helped me understand how to implement dropdown menus and improve user interaction in programs. Overall, I achieved the goals of practicing widget selection and applying ttk in Tkinter.

8. Assessment Rubric: