Laboratory Activity No. 10	
The Selection Widgets using Pycharm	
Course Code: CPE103	**Program:** BSCPE
Course Title: Object-Oriented Programming	**Date Performed: MARCH 22, 2025**
Section: 1A	**Date Submitted: MARCH 22, 2025**
Name: CATAHAN, JOSHUA A.	**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:

```
# 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

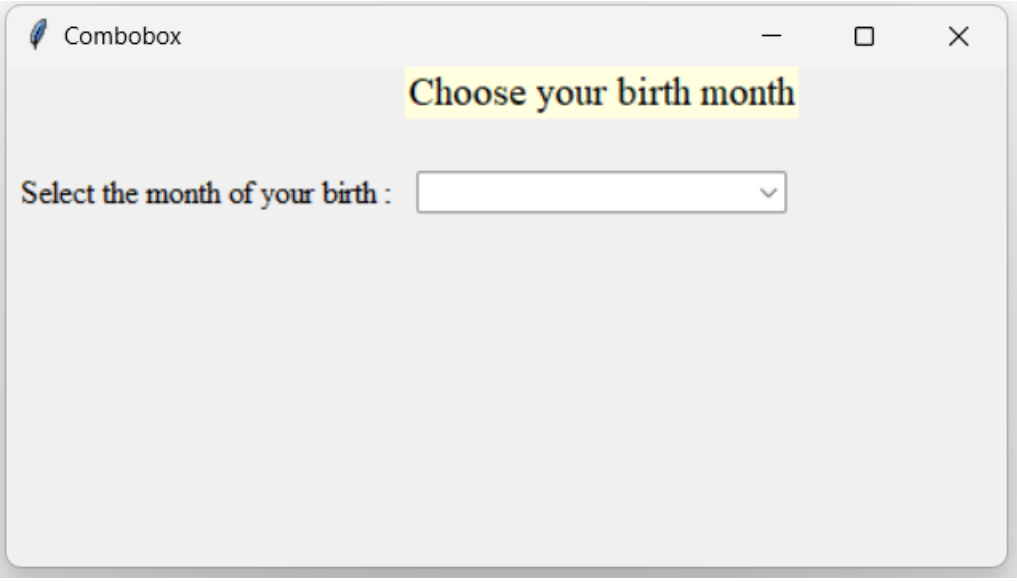
3. Download any .ico picture from https://icon-icons.com/ or any similar sites.
4. Place the icon in your folder (ex. Oopfa1<lastname>_lab10)

```
# 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.

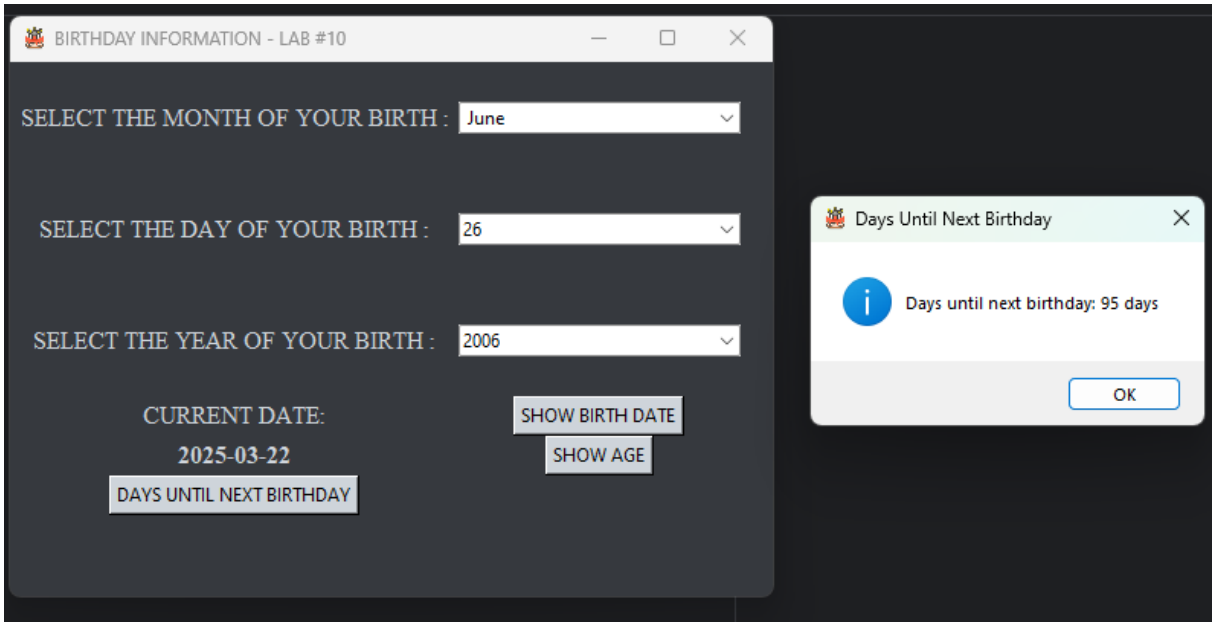


6. Supplementary Activity:

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.



NOTE: ONLY THE DAYS ARE COUNTED AND NOT HOURS IN THE FUNCTION “DAYS UNTIL NEXT BIRTHDAY”

Questions

1. What are selection widgets?
   Selection widgets are elements in a graphical user interface (GUI) that allow users to choose an option, like dropdown menus or checkboxes.

2. Which Python libraries provide selection widgets?

   Python libraries like Tkinter, PyQt, and Kivy provide selection widgets

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

   Selection widgets make user interaction smoother by giving people easy ways to choose from a list of options, improving the overall usability of the app.

7. Conclusion:

In this laboratory activity, I've learned how to use selection widgets. This is thanks to the tasks in this activity, which have helped me improve and practice my coding skills. Besides that, the long hours of coding exposed me to numerous methods, further expanding my knowledge in Python. My ability has increased when it comes to designing GUI's and providing different types of functions. Additionally, it was fun experimenting on how to code different things which come to my mind and make it into reality. Overall, this activity proves once again that there are still lots of things in store for us in PYTHON. On the contrary, this new gained knowledge will further enhance my foundation, which is a very important part when progressing to a higher level of coding.

8. Assessment Rubric: