

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: 1--A	Date Submitted: March 22, 2025
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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:	

```
# 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

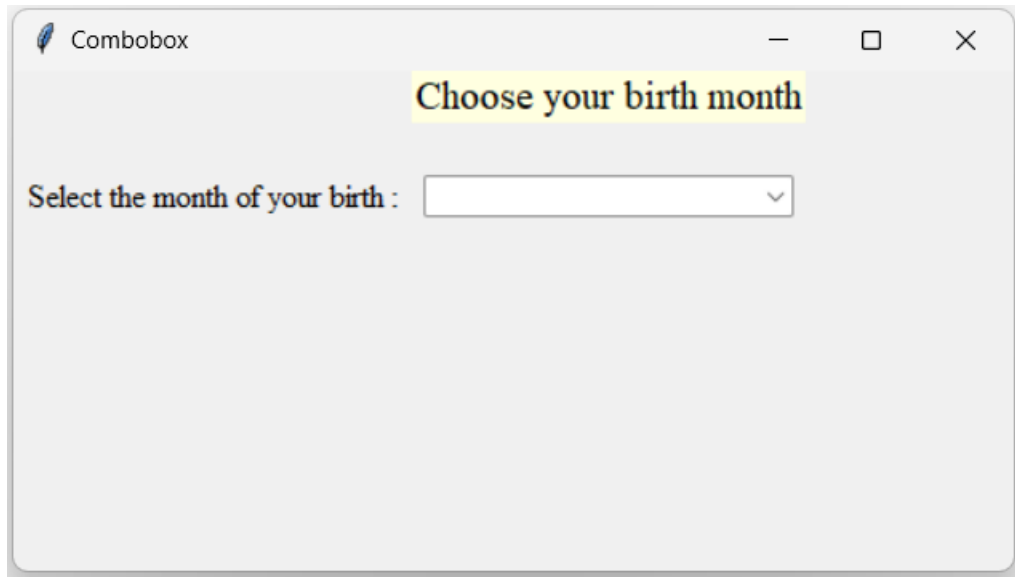
3. Download any .ico picture from <https://icon-icons.com/> or any similar sites.
4. Place the icon in your folder (ex. Oopfa1<lastname>_lab10)

```
# 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 allow users to select alternatives from a list, such as dropdowns or checkboxes.***

2. Which Python libraries provide selection widgets?
 - ***Python libraries such as Tkinter, PyQt, and wxPython offer these selection widgets for user interface creation.***

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

Selection widgets allow users to select alternatives, enhancing the way they interact with the application

7. Conclusion:

- ***Selection widgets play a crucial role in developing interactive and user-friendly applications. They provide users with an easy way of making choices, i.e., selecting a value from a dropdown or checkbox. They provide users with an easy way of making choices and avoiding input mistakes by providing users with pre-specified values. They can easily be utilized by developers in applications with frameworks like Tkinter, PyQt, and wxPython. Overall, selection widgets provide an improved user experience as applications become simpler and more intuitive to use.***

8. Assessment Rubric: