

Laboratory Activity No. 10	
The Selection Widgets using Pycharm	
<b>Course Code:</b> CPE103	<b>Program:</b> BSCPE
<b>Course Title:</b> Object-Oriented Programming	<b>Date Performed:</b> 03/22/2025
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<b>1. Objective(s):</b>	
This activity aims to familiarize students with the Pycharm framework and selection widget	
<b>2. Intended Learning Outcomes (ILOs):</b>	
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	
<b>3. Discussion:</b>	
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.	
<b>4. Materials and Equipment:</b>	
Desktop Computer with Anaconda Python or Pycharm Windows Operating System	
<b>5. Procedure:</b>	

```

# 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

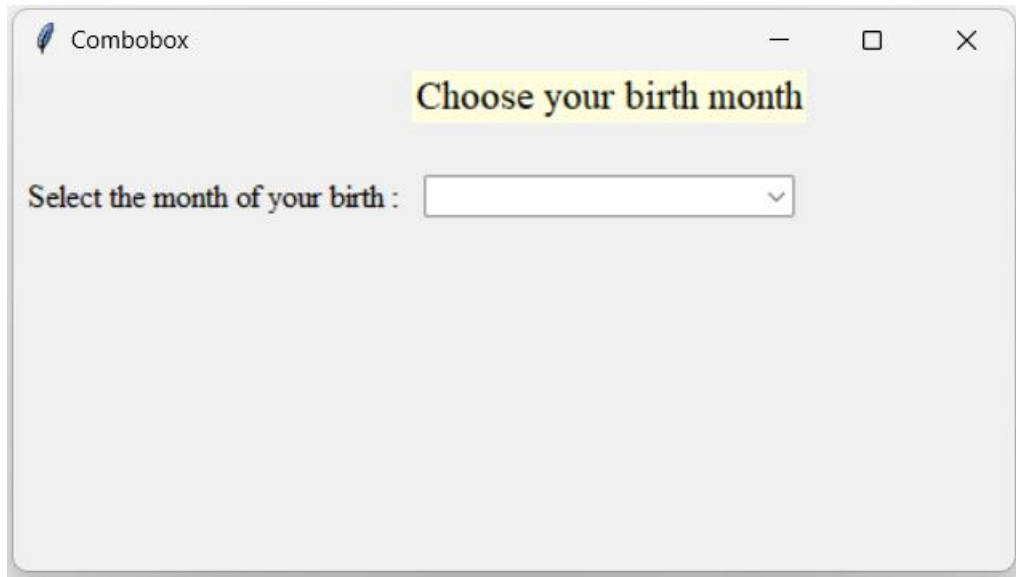
3. Download any .ico picture from <https://icon-icons.com/> or any similar sites.
4. Place the icon in your folder (ex. Oopfa1<lastname>\_lab10)

```
# 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 allows user to choose one or multiple options from a predefined set. It also includes combobox to provide dropdown menu

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2. Which Python libraries provide selection widgets?

Tkinter offers Combobox, Listbox, Radiobutton, and Checkbutton, and PyQt offers QCombobox, QListWidget, QRadioButton, and QCheckBox

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

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It enhance user interactions through structured way for users to input choices without manually typing.

## 7. Conclusion:

Selection widgets are very essential in GUI applications, it allow user to choose from predefined options. Python libraries like Tkinter and PyQt can be used in selection widgets such as Combobox, Listbox, Radiobutton, and Checkbutton. These widgets provide selection improving interaction between the user and program.

## 8. Assessment Rubric: