

Laboratory Activity No. 10

The Selection Widgets using Pycharm

Course Code: CPE103

Program: BSCPE

Course Title: Object-Oriented Programming

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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)

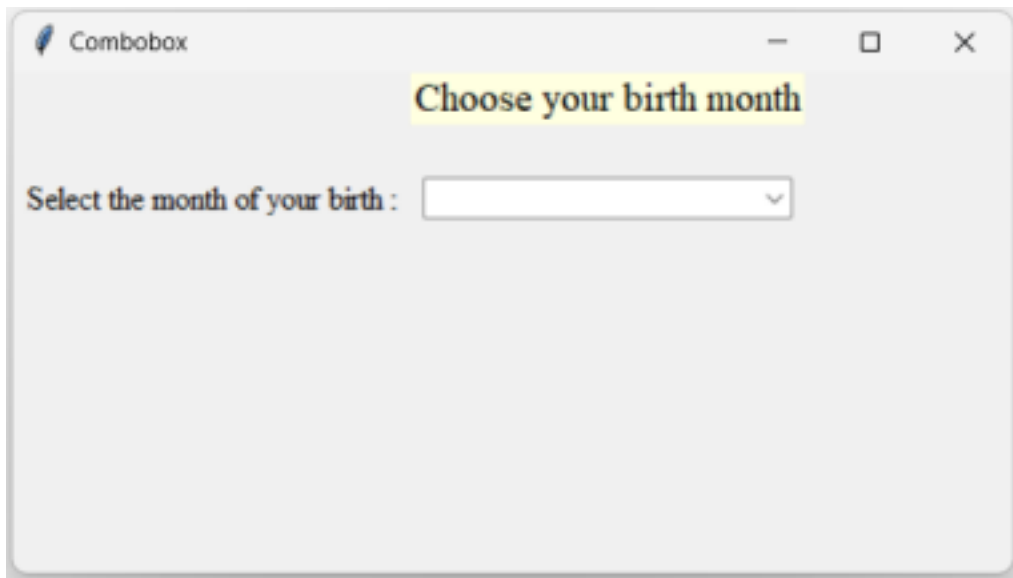
# Create Combobox
n = tk.StringVar()
month = ttk.Combobox(window, width=27, textvariable=n)

# 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 tools in a program that let users choose from different options, like buttons, dropdown menus, and checkboxes.
2. Which Python libraries provide selection widgets?
 - Python libraries that provide selection widgets include Tkinter, PyQt, and Kivy
3. How do selection widgets enhance user interaction in GUI applications?
 - Selection widgets make GUI applications easier to use by allowing users to quickly pick options instead of typing them.

7. Conclusion:

This laboratory taught me to develop a GUI using Python. I found this to be exciting since I got to decide the look, widgets, and placement for my window. Coding using the PyCharm program became easy and time efficient. Being aware of creating and designing a window, I can apply that knowledge to further projects, even our final project. This laboratory was informative, and it bettered my coding abilities.

8. Assessment Rubric: