Lab Activity 8	
The Selection Widget	
Course Code: CPE009B	**Program:** Computer Engineering
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II. Output / Methods

```python
import tkinter as tk
from tkinter import ttk
from tkinter.messagebox import showinfo

# Creating tkinter window and set dimensions
window = tk.Tk()
window.title('Combobox')
window.geometry('500x250')

# 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)

# 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')
month.grid(column=1, row=5)
```

- ‘tkinter’: This is the standard Python interface to the Tk GUI toolkit. It allows you to create graphical user interfaces (GUIs).
- ‘ttk’: This module provides access to the Tk themed widget set, which offers a more modern look and feel for widgets.
- ‘showinfo’: This function is used to display an informational message box.
- 'tk.Tk()': This creates the main window for the application.
- 'window.title('Combobox')': Sets the title of the window to "Combobox".
- 'window.geometry('500x250')': Sets the dimensions of the window to 500 pixels wide and 250 pixels tall.
- 'n = tk.StringVar()': This creates a variable that can hold a string value, which will be used to store the selected month.
- 'month = ttk.Combobox(...)': This creates a combobox widget where users can select a month. The width is set to 27 characters, and the textvariable is set to n, linking the selected value to this variable.
- The values attribute is set to a tuple of month names, which will populate the dropdown list of the combobox.
- The combobox is placed in the grid at row 5, column 1.

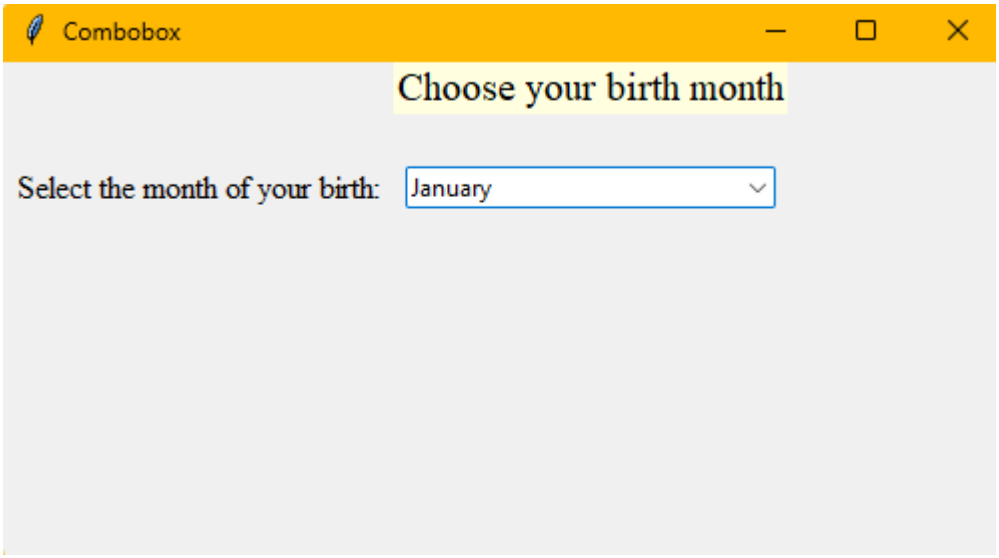
```
28  month.current(0)  # Set the default selection to the first month
29
30  # Function to handle selection
    1 usage
31  def choice(event):
32      showinfo(
33          title="Selection",
34          message=f'You selected {n.get()}'
35      )
36
37  # Bind the combobox selection event to the choice function
38  month.bind("<<ComboboxSelected>>", choice)
39
40  # Start the main loop
41  window.mainloop()
```

- 'month.current(0)': This sets the default selected item to the first month ("January").
- The def choice function is called whenever the user selects a month from the combobox.
- ‘event’: This parameter represents the event that triggered the function (in this case, the selection of an

item in the combobox).

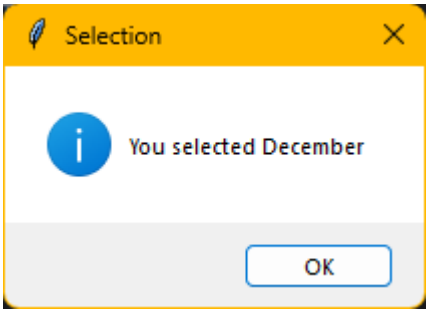
- showinfo(...): This function creates a message box that displays the selected month, using the get() method on the StringVar n to retrieve the current selection.
- line 38 binds the choice function to the <<ComboboxSelected>> event, which is triggered when the user selects an item from the combobox.
- line 41 starts the Tkinter event loop, which waits for user interaction and keeps the window open until the user closes it.

III. Result



- The title of the program is Combobox. The result asked the user to select the month of the birth. In the list tab, it will be a drop down list that has the list of the months.

- This is what the drop down list looks like. It has all of the selection of months from January to December if we scroll down. And when we click a specific month, this is what it will show.



- The program will ping the user the selection it made and a tab will show the month that you choose. In this tab we choose December and by clicking "OK", the tab will close.

IV. Conclusion

In this activity, we successfully created a graphical user interface (GUI) using the Tkinter library in Python, specifically focusing on the use of a Combobox widget. The program allows the user to select a month from a dropdown list, and upon selection, a message box is displayed showing the month that was chosen. The application demonstrates basic concepts of Tkinter, such as creating windows, using widgets, and handling user input through events.

Overall, this activity helped us understand how to integrate interactive elements, like the Combobox, into a Python program. By using the showinfo() method, we were able to provide immediate feedback to the user. This lab exercise enhanced our understanding of GUI programming and how to implement dynamic user

interactions.