Creating RadioButtons In Tkinter | Python Tkinter GUI Tutorial In Hindi #20

Radiobutton() widget is a graphical user interface element of Tkinter, which allows the user to choose (exactly) one of a predefined set of options. Sometimes it is called the options button. Radiobuttons can contain text or images. The button can only display text in a single font. A Python function or method can be associated with a radio button. This function or method will be called if you press this radio button. In order to implement this functionality, each group of radiobuttons must be associated with the same *variable* (we have to initialize the variable firstly if it is *StringVar()*) and each one of the buttons must symbolize a single *value*. You can use the Tab key to switch from one radionbutton to another.

Attributes:

- anchor: If the widget inhabits a space larger than it needs, this option specifies where the radiobutton will sit in that space (i.e. e, w). The default is anchor=CENTER.
- justify: If the text contains multiple lines, this option controls how the text is justified: CENTER (the default), LEFT, or RIGHT.
- value: When a radiobutton is turned on by the user, its control variable is set to its current value option. If the control variable is an *IntVar*, give each radiobutton in the group a different integer value option. If the control variable is a *StringVar*, give each radiobutton a different string value option.
- variable: The control variable that this radiobutton shares with the other radiobuttons in the group. This can be either an IntVar() or a StringVar(). If it is StringVar() it should be initialized beforehand with some other string variable name using the set() function.

- bg: It shows the normal background color behind the indicator and label.
- font: It is used to set the font used for the text.
- text: It is the label displayed next to the radiobutton. Use newlines ("\n") to display multiple lines of text.

Code is described below:

```python
from tkinter import *
import tkinter.messagebox as tmsg

root = Tk()
root.geometry("455x233")
root.title("Radiobutton tutorial")

def order():

    tmsg.showinfo("Order Received!", f"We have received your order for {var.get()}. Thanks for ordering")

# var = IntVar()
var = StringVar()
var.set("Radio")
# var.set(1)
Label(root, text = "What would you like to have sir?",font="lucida 19 bold",
      justify=LEFT, padx=14).pack()
radio = Radiobutton(root, text="Dosa", padx=14, variable=var, value="Dosa").pack(anchor="w")
radio = Radiobutton(root, text="Idly", padx=14, variable=var, value="Idly").pack(anchor="w")
radio = Radiobutton(root, text="Paratha", padx=14, variable=var, value="Paratha").pack(anchor="w")
radio = Radiobutton(root, text="Samosa", padx=14, variable=var, value="Samosa").pack(anchor="w")

Button(text="Order Now", command=order).pack()
root.mainloop()
```

- Importing *tkinter* is the same as importing any other module in the Python code. Note that, the name of the module in Python 2.x is '*Tkinter*' and in Python 3.x it is '*tkinter*'.

```
from tkinter import *
```

- Tkinter-MessageBox (tkinter.messagebox) is imported as '*tmsg*'.

```
import tkinter.messagebox as tmsg
```

- To create the main window, Tkinter offers a method 'Tk'. To change the name of the window, you can change the className to the desired one.

```
root = Tk()
```

- To set the dimensions of the Tkinter window and to set the position of the main window on the user's desktop, the geometry() function is used. As in the example: the width is 455 pixels and height is 233 pixels so we can write the function as *geometry(455x233).*

```
root.geometry("455x233")
```

- The title of the GUI window is set using the title() function. Here we have taken the title as "Radiobutton tutorial".

```
root.title("Radiobutton tutorial")
```

- A function "order()" is defined. Within this function, a message box named "Order Received!" is created where showinfo() function is used to show the given information and within that also get() method is written so that the user can see the selected Radiobutton value in the message box.

```
def order():

    tmsg.showinfo("Order Received!", f"We have received your order for {var.get()}. Thanks for ordering")
```

- A variable is taken as StringVar() and is set to a string value "Radio" (so that the Radiobuttons become unchecked initially).

```
var = StringVar()
var.set("Radio")
```

- A label is created using the label() widget where the text is passed as an attribute and font is set as "lucida 19 bold". We justified the label on the left side and set the padx as 14. Then the label is packed using the pack() function.

```
Label(root, text = "What would you like to have sir?",font="lucida 19 bold",
      justify=LEFT, padx=14).pack()
```

- Four Radiobuttons are created using Radiobutton() widget. For setting the names of the buttons "text" is passed as an attribute and different names (i.e. "Idly", "Dosa" etc.) are set. For taking the variable (StringVar()) "var" we pass the attribute "variable" and give all the radiobuttons different values. Then all the radiobuttons are packed (here we packed it at the west or the leftmost side so we used anchor="w").

```
radio = Radiobutton(root, text="Dosa", padx=14, variable=var, value="Dosa").pack(anchor="w")
radio = Radiobutton(root, text="Idly", padx=14, variable=var, value="Idly").pack(anchor="w")
radio = Radiobutton(root, text="Paratha", padx=14, variable=var, value="Paratha").pack(anchor="w")
radio = Radiobutton(root, text="Samosa", padx=14, variable=var, value="Samosa").pack(anchor="w")
```

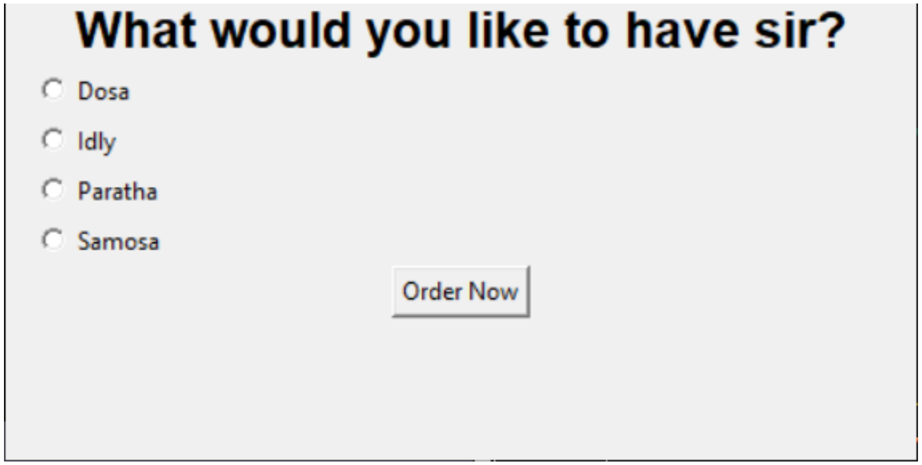
- A button "Order Now" is created using the Button() widget and the order() function is called from this button using the *command* attribute. The button is packed using the pack() method.

```
Button(text="Order Now", command=order).pack()
```

- There is a method known by the name *mainloop()* which is used when your application is ready to run. This is an infinite loop used to run the application, wait for an event to occur, and process the event as long as the window is not closed.

```
root.mainloop()
```

Output: The output of the code (or the GUI window) is given below:


What would you like to have sir?

○ Dosa

○ Idly

○ Paratha

○ Samosa

Code as described/written in the video

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Previous

Next