

Python Tkinter Radiobutton

The Radiobutton widget is used to implement one-of-many selection in the python application. It shows multiple choices to the user out of which, the user can select only one out of them. We can display the multiple line text or images on the radiobuttons. To keep track the user's selection the radiobutton, it is associated with a single variable. Each button displays a single value for that particular variable.

Syntax

Example

```
from tkinter import *

def selection():
    selection = "You selected the option " + str(radio.get())
    label.config(text = selection)

top = Tk()
top.geometry("300x150")
radio = IntVar()
lbl = Label(text = "Favourite programming language:")
lbl.pack()

R1 = Radiobutton(top, text="C", variable=radio, value=1, command=selection)
R1.pack( anchor = W )

R2 = Radiobutton(top, text="C++", variable=radio, value=2, command=selection)
R2.pack( anchor = W )

R3 = Radiobutton(top, text="Java", variable=radio, value=3, command=selection)
R3.pack( anchor = W )

label = Label(top)
label.pack()

top.mainloop()
```

Python Tkinter Scale

The Scale widget is used to implement the graphical slider to the python application so that the user can slide through the range of values shown on the slider and select the one among them.

We can control the minimum and maximum values along with the resolution of the scale. It provides an alternative to the Entry widget when the user is forced to select only one value from the given range of values.

Syntax

```
w = Scale(top, options)
```

Example

```
from tkinter import *
def select():
    sel = "Value = " + str(v.get())
    label.config(text = sel)
top = Tk()
top.geometry("200x100")
v = DoubleVar()
scale = Scale( top, variable = v, from_ = 1, to = 50, orient = HORIZONTAL)
scale.pack(anchor=CENTER)
btn = Button(top, text="Value", command=select)
btn.pack(anchor=CENTER)
label = Label(top)
label.pack()
top.mainloop()
```

Python Tkinter Scrollbar

The scrollbar widget is used to scroll down the content of the other widgets like listbox, text, and canvas. However, we can also create the horizontal scrollbars to the Entry widget.

Syntax

```
w = Scrollbar(top, options)
```

Example

```
from tkinter import *
top = Tk()
sb = Scrollbar(top)
sb.pack(side = RIGHT, fill = Y)
mylist = Listbox(top, yscrollcommand = sb.set )
for line in range(30):
    mylist.insert(END, "Number " + str(line))
mylist.pack( side = LEFT )
sb.config( command = mylist.yview )
mainloop()
```

Tkinter Toplevel

The Toplevel widget is used to create and display the toplevel windows which are directly managed by the window manager. The toplevel widget may or may not have the parent window on the top of them.

The toplevel widget is used when a python application needs to represent some extra information, pop-up, or the group of widgets on the new window.

Example

```
from tkinter import *
root = Tk()
root.geometry("200x200")
def open():
    top = Toplevel(root)
    top.mainloop()
btn = Button(root, text = "open", command = open)
btn.place(x=75,y=50)
root.mainloop()
```

Tkinter messagebox

The messagebox module is used to display the message boxes in the python applications. There are the various functions which are used to display the relevant messages depending upon the application requirements.

Syntax

```
messagebox.function_name(title, message [, options])
```

1. showinfo()

The showinfo() messagebox is used where we need to show some relevant information to the user.

Example

```
from tkinter import *  
from tkinter import messagebox  
top = Tk()  
top.geometry("100x100")  
messagebox.showinfo("information","Information")  
top.mainloop()
```

2. showwarning()

This method is used to display the warning to the user. Consider the following example.

Example

```
from tkinter import *  
from tkinter import messagebox  
top = Tk()  
top.geometry("100x100")  
messagebox.showwarning("warning","Warning")  
top.mainloop()
```

3. **showerror()**

This method is used to display the error message to the user. Consider the following example.

Example

```
from tkinter import *  
from tkinter import messagebox  
top = Tk()  
top.geometry("100x100")  
messagebox.showerror("error","Error")  
top.mainloop()
```

4. **askquestion()**

This method is used to ask some question to the user which can be answered in yes or no. Consider the following example.

Example

```
from tkinter import *  
from tkinter import messagebox  
top = Tk()  
top.geometry("100x100")  
messagebox.askquestion("Confirm","Are you sure?")  
top.mainloop()
```

5. **askokcancel()**

This method is used to confirm the user's action regarding some application activity. Consider the following example.

Example

```
from tkinter import *  
from tkinter import messagebox  
top = Tk()  
top.geometry("100x100")  
messagebox.askokcancel("Redirect", "Redirecting you to www.javatpoint.com")  
top.mainloop()
```

6. askyesno()

This method is used to ask the user about some action to which, the user can answer in yes or no. Consider the following example.

Example

```
from tkinter import *  
from tkinter import messagebox  
top = Tk()  
top.geometry("100x100")  
messagebox.asksyesno("Application", "Got It?")  
top.mainloop()
```

7. askretrycancel()

This method is used to ask the user about doing a particular task again or not. Consider the following example.

Example

```
from tkinter import *  
from tkinter import messagebox  
top = Tk()  
top.geometry("100x100")  
messagebox.askretrycancel("Application", "try again?")  
top.mainloop()
```