

Python 3 - Tkinter Button

The Button widget is used to add buttons in a Python application. These buttons can display text or images that convey the purpose of the buttons. You can attach a function or a method to a button which is called automatically when you click the button.

Syntax

Here is the simple syntax to create this widget –

```
w = Button ( master, option = value, ... )
```

Parameters

- master** – This represents the parent window.
- options** – Here is the list of most commonly used options for this widget. These options can be used as key-value pairs separated by commas.

| Sr.No. | Option & Description |
|--------|--|
| 1 | activebackground Background color when the button is under the cursor. |
| 2 | activeforeground Foreground color when the button is under the cursor. |
| 3 | bd Border width in pixels. Default is 2. |
| 4 | bg Normal background color. |
| 5 | command Function or method to be called when the button is clicked. |
| 6 | fg Normal foreground (text) color. |
| 7 | font Text font to be used for the button's label. |
| 8 | height Height of the button in text lines (for textual buttons) or pixels (for images). |
| 9 | highlightcolor The color of the focus highlight when the widget has focus. |
| 10 | image Image to be displayed on the button (instead of text). |
| 11 | justify How to show multiple text lines: LEFT to left-justify each line; CENTER to center them; or RIGHT to right-justify. |

| | |
|----|---|
| 12 | padx Additional padding left and right of the text. |
| 13 | pady Additional padding above and below the text. |
| 14 | relief Relief specifies the type of the border. Some of the values are SUNKEN, RAISED, GROOVE, and RIDGE. |
| 15 | state Set this option to DISABLED to gray out the button and make it unresponsive. Has the value ACTIVE when the mouse is over it. Default is NORMAL. |
| 16 | underline Default is -1, meaning that no character of the text on the button will be underlined. If nonnegative, the corresponding text character will be underlined. |
| 17 | width Width of the button in letters (if displaying text) or pixels (if displaying an image). |
| 18 | wrlength If this value is set to a positive number, the text lines will be wrapped to fit within this length. |

Methods

Following are commonly used methods for this widget –

| Sr.No. | Medthod & Description |
|--------|--|
| 1 | flash() Causes the button to flash several times between active and normal colors. Leaves the button in the state it was in originally. Ignored if the button is disabled. |
| 2 | invoke() Calls the button's callback, and returns what that function returns. Has no effect if the button is disabled or there is no callback. |

Example

Try the following example yourself –

```
# !/usr/bin/python3
from tkinter import *

from tkinter import messagebox

top = Tk()
top.geometry("100x100")
def helloCallBack():
    msg = messagebox.showinfo( "Hello Python", "Hello World")

B = Button(top, text = "Hello", command = helloCallBack)
B.place(x = 50,y = 50)
top.mainloop()
```

Result

When the above code is executed, it produces the following result –

