



## Tkinter Menu

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**Summary:** in this tutorial, you'll learn how to create a Tkinter menu bar, add menus to the menu bar, and add menu items to each menu.

When an application contains a lot of functions, you need to use menus to organize them for easier navigation.

Typically, you use a menu to group closely related operations. For example, you can find the File menu in most text editors.

Tkinter natively supports menus. It displays menus with the look-and-feel of the target platform that the program runs e.g., Windows, macOS, and Linux.

## Creating a simple menu

First, create a **root** window and set its title to **'Menu Demo'** :

```
root = tk.Tk()
root.title('Menu Demo')
```

Second, create a menu bar and assign it to the **menu** option of the **root** window:

```
menubar = Menu(root)
root.config(menu=menubar)
```

Note that each [top-level window](https://www.pythontutorial.net/tkinter/tkinter-toplevel/) (<https://www.pythontutorial.net/tkinter/tkinter-toplevel/>) can only have only one menu bar.

Third, create a **File** menu whose container is the `menubar` :

```
file_menu = Menu(menubar)
```

Fourth, add a menu item to the `file_menu` :

```
file_menu.add_command(
    label='Exit',
    command=root.destroy,
)
```

In this example, the label of the menu item is `Exit` .

When you click the `Exit` menu item, Python will call the `root.destroy()` method automatically to close the `root` window.

Finally, add the `File` menu to the `menubar`:

```
menubar.add_cascade(
    label="File",
    menu=file_menu,
    underline=0
)
```

The `underline` option allows you to create a keyboard shortcut. It specifies the character position that should be underlined.

Note that the position starts from zero. In this example, we specify it as the first character which is `F` . And you can select it by using the `Alt+F` keyboard shortcut.

Put it all together:

```
import tkinter as tk
from tkinter import Menu

# root window
root = tk.Tk()
root.title('Menu Demo')

# create a menubar
menubar = Menu(root)
root.config(menu=menubar)

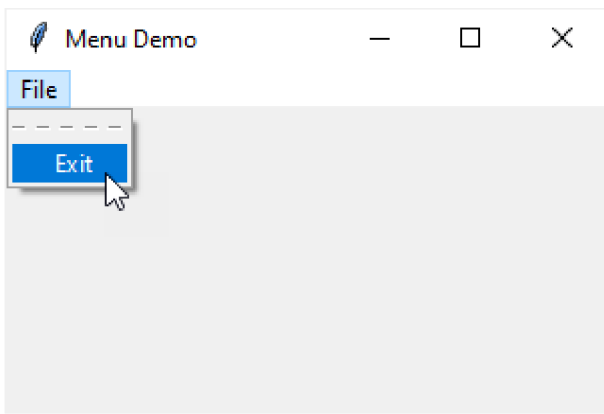
# create a menu
file_menu = Menu(menubar)

# add a menu item to the menu
file_menu.add_command(
    label='Exit',
    command=root.destroy
)

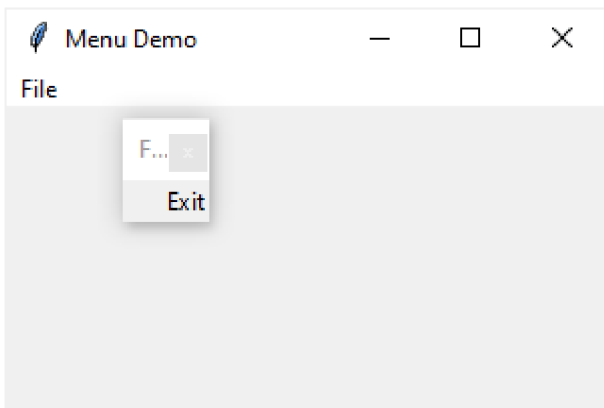
# add the File menu to the menubar
menubar.add_cascade(
    label="File",
    menu=file_menu
)

root.mainloop()
```

Output:



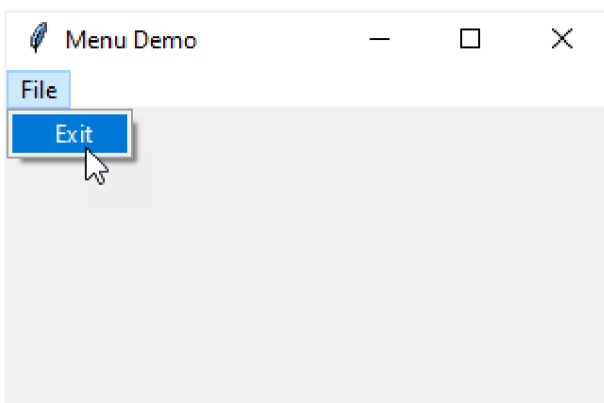
By default, Tkinter adds a dashed line before the first menu item. When you click the dashed line, the main window will detach the menu from it like this:



To remove the dashed line, you can set the `tearoff` property of the menu to `False` :

```
file_menu = Menu(menuubar, tearoff=False)
```

Output:



## Creating a more complex menu

The following program illustrates how to create a menu bar, add the **File** and **Help** menus to the menu bar. Also, it adds multiple menu items to these menus:

```
from tkinter import Tk, Frame, Menu

# root window
root = Tk()
root.geometry('320x150')
root.title('Menu Demo')

# create a menubar
menubar = Menu(root)
root.config(menu=menubar)

# create the file_menu
file_menu = Menu(
    menubar,
    tearoff=0
)

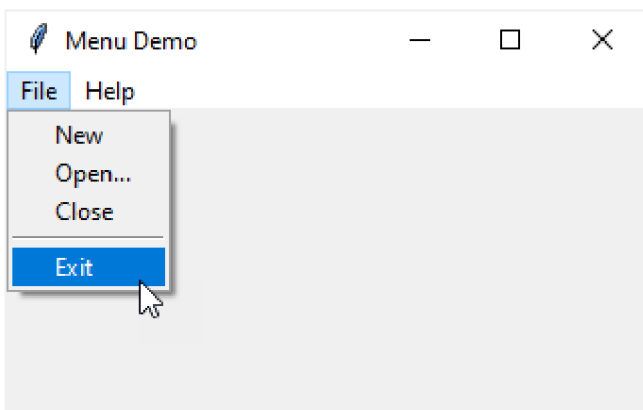
# add menu items to the File menu
file_menu.add_command(label='New')
file_menu.add_command(label='Open...')
file_menu.add_command(label='Close')
file_menu.add_separator()

# add Exit menu item
file_menu.add_command(
    label='Exit',
    command=root.destroy
)

# add the File menu to the menubar
menubar.add_cascade(
    label="File",
    menu=file_menu
```

```
)  
  
# create the Help menu  
help_menu = Menu(  
    menubar,  
    tearoff=0  
)  
  
help_menu.add_command(label='Welcome')  
help_menu.add_command(label='About...')  
  
# add the Help menu to the menubar  
menubar.add_cascade(  
    label="Help",  
    menu=help_menu  
)  
  
root.mainloop()
```

Output:



The only new statement in this program is to use the `add_separator()` method to add a separator to the menu.

## Adding a submenu

The following program adds the menu item `Preferences` to the `File` menu and create a submenu that links the new menu item:

```
from tkinter import Tk, Menu

# root window
root = Tk()
root.geometry('320x150')
root.title('Menu Demo')

# create a menubar
menubar = Menu(root)
root.config(menu=menubar)

# create the file_menu
file_menu = Menu(
    menubar,
    tearoff=0
)

# add menu items to the File menu
file_menu.add_command(label='New')
file_menu.add_command(label='Open...')
file_menu.add_command(label='Close')
file_menu.add_separator()

# add a submenu
sub_menu = Menu(file_menu, tearoff=0)
sub_menu.add_command(label='Keyboard Shortcuts')
sub_menu.add_command(label='Color Themes')

# add the File menu to the menubar
file_menu.add_cascade(
    label="Preferences",
    menu=sub_menu
)
```

```
# add Exit menu item
file_menu.add_separator()
file_menu.add_command(
    label='Exit',
    command=root.destroy
)

menubar.add_cascade(
    label="File",
    menu=file_menu,
    underline=0
)

# create the Help menu
help_menu = Menu(
    menubar,
    tearoff=0
)

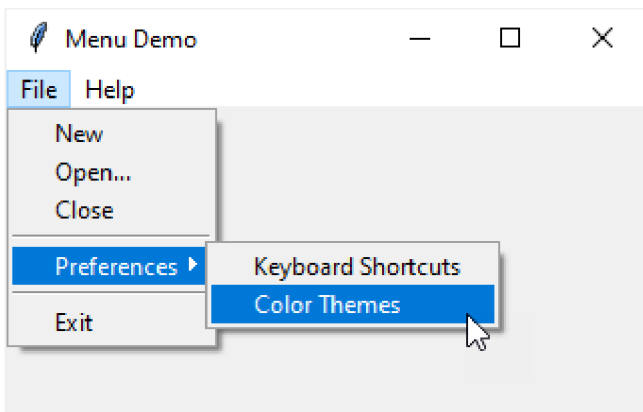
help_menu.add_command(label='Welcome')
help_menu.add_command(label='About...')

# add the Help menu to the menubar
menubar.add_cascade(
    label="Help",
    menu=help_menu,
    underline=0
)

root.mainloop()
```

Output:





How it works.

The following code adds a submenu to **File** menu and links the submenu to **Preferences** menu item:

```
# add a submenu
sub_menu = Menu(file_menu, tearoff=0)
sub_menu.add_command(label='Keyboard Shortcuts')
sub_menu.add_command(label='Color Themes')

# add the File menu to the menubar
file_menu.add_cascade(
    label="Preferences",
    menu=sub_menu
)
```

## Summary

- Use `Menu()` to create a new menu,
- Use `menu.add_command()` method to add a menu item to the menu.
- Use `menubar.add_cascade(menu_title, menu)` to add a `menu` to the `menubar` .
- Use `menu.add(submenu_title, submenu)` to add a submenu to the `menu` .