

3 starter codes necessary

1. Import tkinter
2. Window =tkinter.Tk() ## the name can be anything, window, win, root is common (opens a window)
3. `window.title("LCD screen control")` ##change the title of your window. Default is tk if this command is not run.
4. `window.mainloop()` ## name and then mainloop. This has to be at the end

You can write

```
import tkinter as tk. ## this allows you to write tk instead of tkinter so
window=tk.Tk()
```

Create labels

Go to tkinter file and search for what you want

Tk : label, buttons, radio buttons

Ttk: another folder with GUI stuff

First import the file

```
from tkinter import ttk
```

Command

```
ttk.Label(window, text="type your name:") ## which window and what text you want
```

Need to tell where to put the label

You can use pack or grid

If you use pack command is

```
ttk.Label(window, text= "xyz").pack() ## this puts it in the center and then that's
```

the size of the window

If you use grid command

```
ttk.Label(window, text= "xyz").grid(row=0,column=0)
```

If you want to name the label:

```
name_label= ttk.Label(window, text= 'xyz')
```

```
name_label.grid(row=0,column=0)
```

To get another label right below it

```
age_label=ttk.Label(window, text='enter your age')
```

```
age_label.grid(row=1,column=0)
```

To get the label to position to the right or left

```
name_label.grid(row=0,column=0,sticky=tk.w) ## w for west
```

To create an entry box

```
name_entrybox= ttk.Entry(win, width= 16)
```

```
name_entrybox.grid(row=0, column=1 )
```

To store entry

```
name_var=tk.StringVar()
```

```
name_entrybox= ttk.Entry(win, width= 16, textvariable = name_var)
```

```
name_entrybox.grid(row=0, column=1 )
```

To create a button

```
submit_button=ttk.Button(win, text='Submit')  
submit_button.grid(row=2, column=0)
```

To make the button take action

```
Def action(): ## define the action  
    Username = name_var.get()  
    Usage = age_var.get()  
    print(f'{username} is {usage} years old')  
submit_button=ttk.Button(win, text='submit', command=action)
```

For multiple selection, or dropdown menu, create a combobox

```
gender_combobox= ttk.Combobox(win, width=16)  
gender_combobox['values']=('Male', 'Female', 'other')  
gender_combobox.grid(rows=3, column=0)
```

For users not to type in combobox space

```
gender_combobox= ttk.Combobox(win, width=16, textvariable=gender_var,  
state='readonly')
```

To focus the cursor

```
name_entrybox.focus()
```

To have a option already selected on combobox

```
gender_combobox.current(0)
```

To create a radio button

```
usertype=tk.StringVar()  
radiobtn1=ttk.Radiobutton(win, text='Student', value='Student', variable=usertype)  
radiobtn1.grid(row=3, column=0)
```

```
radiobtn2=ttk.Radiobutton(win, text='Teacher', value='Teacher', variable=usertype)  
radiobtn2.grid(row=3, column=1)
```

To create a check button

```
checkbtn_var=tk.IntVar()  
checkbtn=ttk.Checkbutton(win, text='subscribe to our newsletter',  
variable=checkbtn_var)  
checkbtn.grid(row=4, columnspan=3)
```

To save the info on a file

```
def action():
    username=name_var.get()
    userage = age_var.get()
    print(f'{username} is {userage} years old')
    user_gender=gender_var.get()
    user_type=usertype.get()
if checkbtn_var.get()==0:
    subscribed = 'NO'
else:
    subscribed = 'YES'
print(user_gender,user_type,subscribed)

with open('file.txt','a') as f:
    f.write(f'{username},{userage},{user_gender},{user_type},{subscribed},\n')
```

To delete the entry once the button is pressed

Use the delete command in the action space

To change the color of the label once the button is pressed

```
name_label.configure(foreground='Blue')
```

To pick your color you need the hex value

Here is a good website: <https://htmlcolorcodes.com/color-picker/>

Then the code will change to this

```
name_label.configure(foreground='#991E1E') ## the number is the generated hex value
```

For this to work, the widget has to be generated with tk, not ttk