

```

1 import string
2 from tkinter import*
3 from tkinter import ttk
4 from tkinter.font import BOLD
5 from PIL import Image, ImageTk
6 from tkinter import messagebox
7 import mysql.connector
8 import cv2
9 from numpy import imag, true_divide
10 import os
11 import numpy as np
12
13 class Train:
14     def __init__(self,root):
15         self.root=root
16         self.root.geometry("1270x700+0+0")
17         self.root.title("Train Data")
18
19         title_label = Label(self.root,text="TRAIN DATA SET",font=("times new
20 roman",30,"bold"),bg="steelblue",fg="black")
21         title_label.place(x=0,y=0,width=1280,height=40)
22
23         #img1
24         img_top=Image.open(r"college_img\traindataaa.png")
25         img_top=img_top.resize((1270,250),Image.ANTIALIAS)
26         self.photoimg_top=ImageTk.PhotoImage(img_top)
27
28         f_lbl13=Label(self.root,image=self.photoimg_top)
29         f_lbl13.place(x=5,y=40,width=1270,height=250)
30
31         #button
32         b2 = Button(self.root,text="Train
33 Data",command=self.train_classifier,cursor="hand2",font=("times new
34 roman",26,"bold"),bg="darkblue",fg="white")
35         b2.place(x = 85,y = 290,width = 1100, height = 50)
36
37         #img2
38         img_down=Image.open(r"college_img\traint.jpg")
39         img_down=img_down.resize((1270,350),Image.ANTIALIAS)
40         self.photoimg_down=ImageTk.PhotoImage(img_down)
41
42         f_lbl13=Label(self.root,image=self.photoimg_down)
43         f_lbl13.place(x=5,y=340,width=1270,height=350)
44
45     def train_classifier(self):
46         data_dir=("data")
47         path=[os.path.join(data_dir,file) for file in os.listdir(data_dir)]
48
49         faces=[]
50         ids=[]
51
52         for image in path:
53             img=Image.open(image).convert("L") #GRAYSCALE IMG
54             imageNp=np.array(img,'uint8')
55             id=int(os.path.split(image)[1].split('.')[1])
56
57             faces.append(imageNp)
58             ids.append(id)
59             cv2.imshow("training",imageNp)

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57         cv2.waitKey(1)==13
58         ids=np.array(ids)
59
60         #=====TRAIN THE CLASSIFIER AND SAVE=====
61         clf=cv2.face.LBPHFaceRecognizer_create()
62         clf.train(faces,ids)
63         clf.write("classifier.xml")
64         cv2.destroyAllWindows()
65         messagebox.showinfo("Result","Training Datasets Completed")
66
67
68 if __name__=="__main__":
69     root=Tk()
70     obj=Train(root)
71     root.mainloop()
72
```