**from tkinter import \***

**from tkinter import messagebox as mb**

**from PIL import Image, ImageTk**

**import requests**

**from datetime import datetime**

**root=Tk()**

**root.title("Weather App")**

**root.geometry("900x800")**

**img= Image.open('bg1.jpg')**

**img\_photo=ImageTk.PhotoImage(img)**

**bg\_label=Label(root,image=img\_photo)**

**bg\_label.place(x=0,y=0,width=900,height=800)**

**def get\_wheather():**

**global city**

**city=city\_input.get()**

**api\_key = "afa3d78222c52c43c250e89332e43f78"**

**url = f"https://api.openweathermap.org/data/2.5/weather?q={city}&appid={api\_key}"**

**response=requests.get(url)**

**if response.status\_code ==200:**

**data=response.json()**

**kelvin = 273.15 # value of kelvin**

**temp = data ['main']['temp'] - kelvin #converting default kelvin value to Celcius**

**humidity = data['main']['humidity']**

**pressure = data['main']['pressure']**

**wind = (data['wind']['speed']) \* 3.6**

**epoch\_time=data['dt']**

**date\_time=datetime.fromtimestamp(epoch\_time)**

**desc= data['weather'][0]['description']**

**cloudy = data['clouds']['all']**

**timelabel.config(text=str(date\_time))**

**temp\_field.insert(0, '{:.2f}'.format(temp) + " celcius")**

**Pressure\_field.insert(0, str (pressure) + " hPa")**

**humid\_field.insert(0, str (humidity) + "%")**

**wind\_field.insert(0, '{:.2f}'.format(wind) + "km/h")**

**cloud\_field.insert(0, str(cloudy) + "%")**

**desc\_field.insert(0, str(desc))**

**else:**

**mb.showerror("Error","City Not Found.Enter a valid city name")**

**city\_input.delete(0,END)**

**def reset():**

**city\_input.delete(0, END)**

**temp\_field.delete(0, END)**

**Pressure\_field.delete(0, END)**

**humid\_field.delete(0, END)**

**wind\_field.delete(0, END)**

**cloud\_field.delete(0, END)**

**desc\_field.delete(0, END)**

**timelabel.config(text=" ")**

**def get\_forecast():**

**url1='https://wttr.in/{}.png'.format(city)**

**response1=requests.get(url1)**

**path='forecast\_weather.png'**

**if response1.status\_code==200:**

**with open(path,'wb') as f:**

**f.write(response1.content)**

**im=Image.open(path)**

**im.show()**

**title = Label(root, text='Weather detection and forecast', fg='yellow', bg='royal blue',font=("Time New Roman",25))**

**Label1= Label(root, text='Enter the City name:', font=('bold', 12), bg='royal blue')**

**city\_input= Entry (root, width=24, fg='red', font=12, relief =GROOVE)**

**timelabel= Label(root, text='', bg='royal blue', font=('bold', 14), fg='yellow')**

**btn\_submit = Button(root, text=' Get Weather', width=10, font=12, bg='lime green', command= get\_wheather)**

**btn\_reset = Button(root, text='Reset', font=12, bg='lime green', command= reset)**

**label2= Label(root, text="Temperature:", font=('bold', 12), bg='royal blue')**

**label3= Label(root, text="Pressure:", font=('bold', 12), bg='royal blue')**

**label4 =Label (root, text="Humidity:", font=('bold', 12), bg='royal blue')**

**label5= Label(root, text="Wind:", font=('bold', 12), bg='royal blue')**

**label6= Label(root, text="Cloudness:", font=('bold', 12), bg='royal blue')**

**label7= Label(root, text="Description:", font=('bold', 12), bg='royal blue')**

**temp\_field= Entry(root,width=24,font=11)**

**Pressure\_field= Entry(root,width=24,font=11)**

**humid\_field= Entry(root,width=24,font=11)**

**wind\_field= Entry(root,width=24,font=11)**

**cloud\_field= Entry(root,width=24,font=11)**

**desc\_field= Entry(root,width=24,font=11)**

**title.place(x=220,y=50,height=50,width=470)**

**Label1.place(x=120,y=170,height=50,width=180)**

**timelabel.place(x=600,y=120,height=30,width=250)**

**btn\_submit.place(x=350,y=260,height=50,width=170)**

**label2.place(x=120,y=350,height=40,width=120)**

**label3.place(x=120,y=400,height=40,width=120)**

**label4.place(x=120,y=450,height=40,width=120)**

**label5.place(x=120,y=500,height=40,width=120)**

**label6.place(x=120,y=550,height=40,width=120)**

**label7.place(x=120,y=600,height=40,width=120)**

**city\_input.place(x=310,y=170,height=50,width=260)**

**temp\_field.place(x=300,y=340,height=40,width=240)**

**Pressure\_field.place(x=300,y=400,height=40,width=240)**

**humid\_field.place(x=300,y=450,height=40,width=240)**

**wind\_field.place(x=300,y=500,height=40,width=240)**

**cloud\_field.place(x=300,y=550,height=40,width=240)**

**desc\_field.place(x=300,y=600,height=40,width=240)**

**btn\_reset.place(x=350,y=670,height=50,width=120)**

**root.mainloop()**