

**Department of Computer Science & Engineering**

**B. P. Poddar Institute of Management & Technology**

PCA 1 PROJECT

IT WORKSHOP (PYTHON) – PCC-CS-393

|  |  |
| --- | --- |
| **Name** | **Roll No.** |
| ARGHA MALLICK | 11500122014 |
| AMAN SANTRA | 11500122009 |

**Project Title – Real Time Weather Update Application in Python**

**SOURCE CODE**

# pip install geopy

# pip install timezonefinder

# pip install requests

# pip install pytz

API\_KEY = "c4910bb187874a6893f170604232603"

from tkinter import \*

import tkinter as tk

from geopy.geocoders import Nominatim

from tkinter import messagebox

from timezonefinder import TimezoneFinder

from datetime import datetime

import requests

import pytz

root = Tk()

root.title("Real Time Weather Update")

root.iconbitmap('favicon.ico')

root.geometry("900x500+300+200")

root.resizable(False, False)

def get\_weather():

    try:

        city = textfield.get()

        geolocator = Nominatim(user\_agent="geoapiExercises")

        location = geolocator.geocode(city)

        obj = TimezoneFinder()

        result = obj.timezone\_at(lng=location.longitude, lat=location.latitude)

        print(result)

        home = pytz.timezone(result)

        local\_time = datetime.now(home)

        current\_time = local\_time.strftime("%I:%M %p")

        # fetch api

        url = f"http://api.weatherapi.com/v1/current.json?key={API\_KEY}&q={city}"

        weather = requests.get(url).json()

        print(weather)

        time\_zone = weather['location']['tz\_id']

        condition = weather['current']['condition']['text']

        temp = weather['current']['temp\_c']

        real\_feel = weather['current']['feelslike\_c']

        pressure = weather['current']['pressure\_mb']

        humidity = weather['current']['humidity']

        wind = weather['current']['wind\_kph']

        cloud = weather['current']['cloud']

        clock.config(text=f"Current Weather | {current\_time}")

        tz.config(text=f"Time Zone - {time\_zone}")

        t.config(text=(temp, "°C"))

        c.config(text=f"{condition} | FEELS LIKE {real\_feel} °C")

        w.config(text=(wind, "kph"))

        h.config(text=(humidity))

        cld.config(text=f"{cloud}%")

        p.config(text=(pressure, "mb"))

    except Exception as e:

        messagebox.showerror("Weather App", "Some Error Occured!")

        print(e)

# search box

Search\_image = PhotoImage(file="search.png")

myimage = Label(image=Search\_image)

myimage.place(x=20, y=20)

textfield = tk.Entry(root, justify="center", width=17, font=("poppins", 25, "bold"), bg="#404040", border=0, fg="white")

textfield.place(x=50, y=40)

textfield.focus()

Search\_icon = PhotoImage(file="search\_icon.png")

myimage\_icon = Button(image=Search\_icon, borderwidth=0,cursor="hand2", bg="#404040", command=get\_weather)

myimage\_icon.place(x=400, y=34)

# logo

Logo\_image = PhotoImage(file="logo.png")

logo = Label(image=Logo\_image)

logo.place(x=150, y=100)

# Bottom box

Frame\_image = PhotoImage(file="box.png")

frame\_myimage = Label(image=Frame\_image)

frame\_myimage.pack(padx=5, pady=5, side=BOTTOM)

# time

clock = Label(root, font=("Helvetica", 20), text="Get weather on Real Time")

clock.place(x=500, y=40)

# label

label1 = Label(root, text="WIND", font=("Helvetica", 15, 'bold'),fg="white",bg="#1ab5ef")

label1.place(x=120, y=400)

label2 = Label(root, text="HUMIDITY", font=("Helvetica", 15, 'bold'),fg="white",bg="#1ab5ef")

label2.place(x=300, y=400)

label3 = Label(root, text="CLOUDS", font=("Helvetica", 15, 'bold'),fg="white",bg="#1ab5ef")

label3.place(x=500, y=400)

label4 = Label(root, text="PRESSURE", font=("Helvetica", 15, 'bold'),fg="white",bg="#1ab5ef")

label4.place(x=680, y=400)

# time zone

tz = Label(root, font=("arial", 15, "bold"))

tz.place(x=420, y=140)

t=Label(font=("arial",70,"bold"),fg="#ee666d", text="Search")

t.place(x=410,y=170)

c=Label(font=("arial",15, "bold"), text="Your Location")

c.place(x=420,y=270)

w=Label(text= "..............",font=("arial",20,"bold"),bg="#1ab5ef")

w.place(x=90, y=430)

h=Label(text= "....",font=("arial",20,"bold"),bg="#1ab5ef")

h.place(x=330, y=430)

cld=Label(text= ".......",font=("arial",20,"bold"),bg="#1ab5ef")

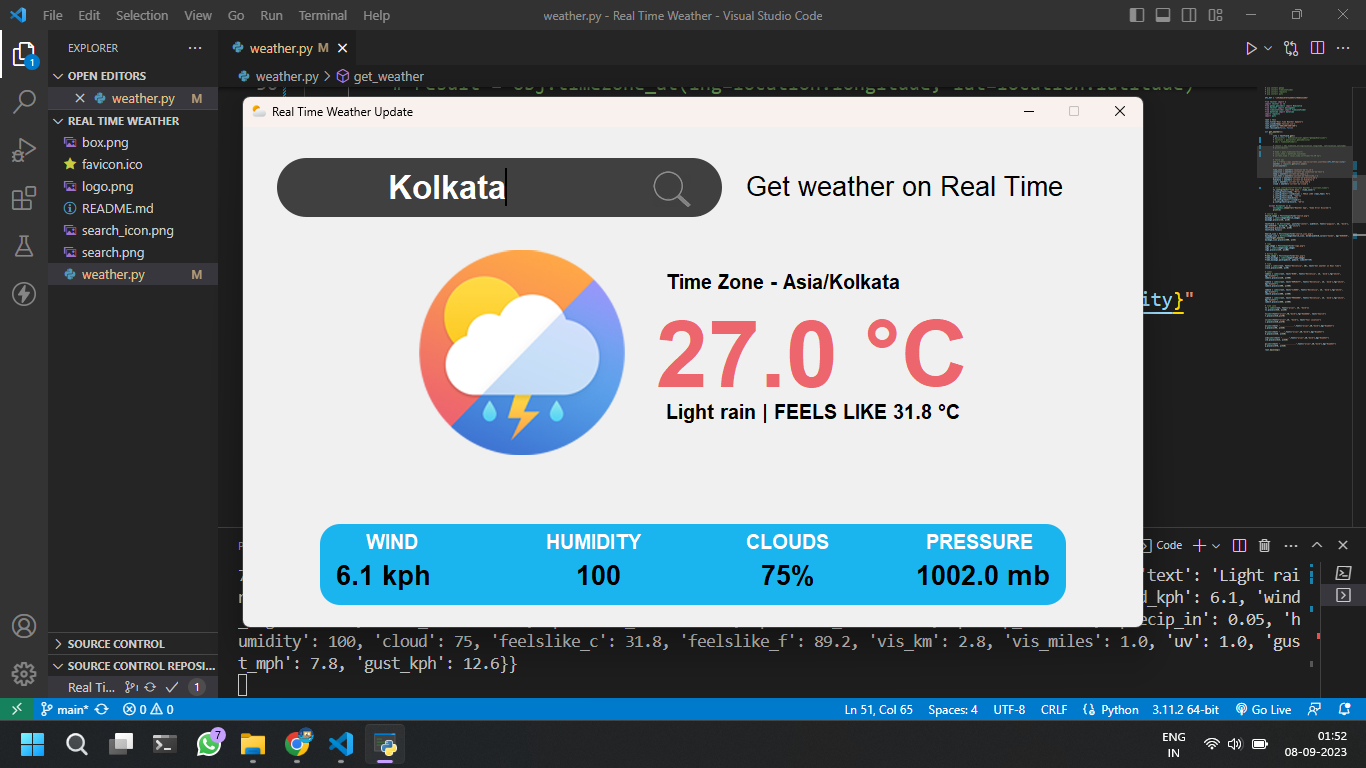
cld.place(x=515, y=430)

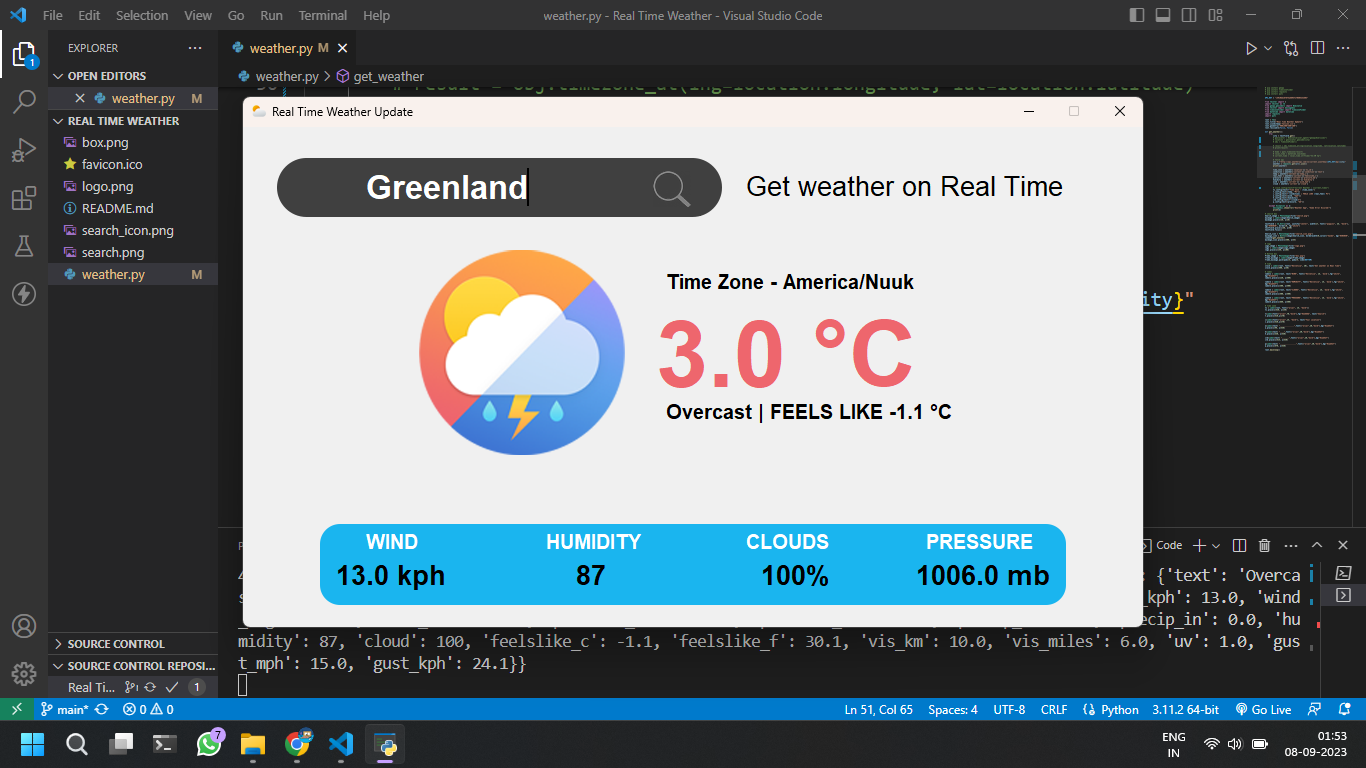
p=Label(text= "................",font=("arial",20,"bold"),bg="#1ab5ef")

p.place(x=670, y=430)

root.mainloop()

**OUTPUT SCREEN**

****

****