**ASSIGNMENT-2**

**PYTHON PROGRAMMING**

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| Assignment Date | 01 October 2022 |
| Student Name | Sandhiya lakshmi M |
| Student Roll Num | 2019pitcs139 |
| Maximum Mark | 2 Marks |

**QUESTION -1**

**Build a python code, Assume u get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.**

**PYTHON PROGRAM**

**import** requests

*#import os*

**from** datetime **import** datetime

In [39]:

api\_key **=** '4485e56ab6de9a91047e8fbeed6a7902'

location **=** input("Enter the city name: ")

complete\_api\_link **=** "https://api.openweathermap.org/data/2.5/weather?q="**+**location**+**"&appid="**+**api\_key

api\_link **=** requests**.**get(complete\_api\_link)

api\_data **=** api\_link**.**json()

*#create variables to store and display data*

temp\_city **=** ((api\_data['main']['temp']) **-** 273.15)

weather\_desc **=** api\_data['weather'][0]['description']

hmdt **=** api\_data['main']['humidity']

wind\_spd **=** api\_data['wind']['speed']

date\_time **=** datetime**.**now()**.**strftime("%d %b %Y | %I:%M:%S %p")

print ("-------------------------------------------------------------")

print ("Weather Stats for - {} || {}"**.**format(location**.**upper(), date\_time))

print ("-------------------------------------------------------------")

print ("Current temperature is: {:.2f} deg C"**.**format(temp\_city))

print ("Current weather desc :",weather\_desc)

print ("Current Humidity :",hmdt, '%')

print ("Current wind speed :",wind\_spd ,'kmph')

print("====================================================")

*# making a list so that i can print the info to a txt*

txtlist **=** [temp\_city,weather\_desc,hmdt,wind\_spd,date\_time]

*#using open() buit-in function to write to a text file*

**with** open("textfile.txt" , mode**=** 'w' ,encoding**=** 'utf-8') **as** f :

*#encoding = utf-8 for linux and cp1252 for win*

f**.**write("------------------------------------------------------------- \n ")

f**.**write("Weather Stats for - {} || {}"**.**format(location**.**upper(), date\_time))

f**.**write("\n ------------------------------------------------------------- \n")

f**.**write("Current temperature is: {:.2f} deg C\n"**.**format(txtlist[0]))

f**.**write("{},{} \n"**.**format("Current weather desc :" ,txtlist[1]))

f**.**write("{},{},{} \n"**.**format("Current Humidity :",txtlist[2],"%"))

f**.**write("{},{},{} \n"**.**format("Current wind speed :",txtlist[3],"kmph"))

f**.**write("====================================================")

**OUTPUT**

Enter the city name: Gudiyatham

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Weather Stats for - Gudiyatham 05-10-2022

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Current temperature is: 30.99 deg C

Current weather desc : mist

Current Humidity : 74 %

Current wind speed : 2.57 kmph