

Assignment -2
Python Programming

Assignment Date	19 September 2022
Student Name	Narmadha .M
Student Roll Number	2019PECEC177
Maximum Marks	2 Marks

Question-1:

Build a python code assuming you get temperature and humidity values and write with a condition to continuously detect alarm in case of high temperature

Solution:

```
import sys

import math

print('Celsius    Fahrenheit    Humidity')

dp=0

c=0

ind=""

def frost_point(c,dpc):

    dpk=273.15 + dpc

    tak=273.15+c

    fpk=dpk - tak + 2671.02 / ((2954.61 / tak)+ 2.193665 * math.log(tak)-13.3448)

    return fpk - 273.15

def dew_point(c,rh):

    A= 17.27

    B= 273.7

    alpha= ((A*c)/(B+c)) + math.log(rh/100.0)

    dp= (B*alpha)/(A-alpha)

    for c in range(30,71,1):
```

```

f=int((c*1.8) + 32)

hum= 100*((math.e*((17.625 * dp)/(243.04+dp))) / (math.e*((17.625 * f)/(243.04+f))))

humidity=100*hum

if f >= 100:

    ind='!!! Over heated !!!'

    print('Warning : ',ind)

    print("""

    """)

else:

    print("")

print("""

""")

print(c,'          ',f,'          %.2f' %humidity)

```

Assignment 2.py - C:/Users/HP/AppData/Local/Programs/Python/Python37/Assignment 2.py (3.7.0)

File Edit Format Run Options Window Help

```

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print('Celsius      Fahrenheit      Humidity')
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    dpk=273.15 + dpc
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def dew_point(c,rh):
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for c in range(30,71,1):
    f=int((c*1.8) + 32)
    hum= 100*((math.e*((17.625 * dp)/(243.04+dp))) / (math.e*((17.625 * f)/(243.04+f))))
    humidity=100*hum
    if f >= 100:
        ind='!!! Over heated !!!'
        print('Warning : ',ind)
        print("""
        """)
    else:
        print("")
    print("""
    """)
    print(c,'          ',f,'          %.2f' %humidity)

```

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
RESTART: C:/Users/HP/AppData/Local/Programs/Python/Python37/Assignment 2.py
Celsius      Fahrenheit  Humidity

30           86           0.00

31           87           0.00

32           89           0.00

33           91           0.00

34           93           0.00

35           95           0.00

36           96           0.00
```

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help

37           98           0.00
Warning :  !!! Over heated !!!

38           100          0.00
Warning :  !!! Over heated !!!

39           102          0.00
Warning :  !!! Over heated !!!

40           104          0.00
Warning :  !!! Over heated !!!

41           105          0.00
Warning :  !!! Over heated !!!

42           107          0.00
Warning :  !!! Over heated !!!
```