

ASSIGNMENT – 2

PYTHON PROGRAMMING

Assignment Date	30 September 2022
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Maximum Marks	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.

Solution:

```
import time
import random

while (True):
    temp = random.uniform(95,101)
    hum = random.randint(28,62)

    if temp > 99:
        print("Temperature is HIGH [ TEMP - "+ str(round(temp, 2)) +
"F, HUMI - " + str(hum) + " % ]")
    elif temp < 97:
        print("Temperature is LOW [ TEMP - "+ str(round(temp, 2)) +
"F, HUMI - " + str(hum) + " % ]")
    else:
        print("Temperature is NORMAL [ TEMP - "+ str(round(temp, 2))
+ "F, HUMI - " + str(hum) + " % ]")

    time.sleep(1)
```

OUTPUT:

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```
hello.py X
hello.py > ...
1 import time
2 import random
3
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

```
Temperature is NORMAL [ TEMP - 98.86`F, HUMI - 55 % ]
Temperature is LOW [ TEMP - 96.05`F, HUMI - 46 % ]
Temperature is NORMAL [ TEMP - 98.16`F, HUMI - 35 % ]
Temperature is NORMAL [ TEMP - 97.13`F, HUMI - 54 % ]
Temperature is LOW [ TEMP - 95.43`F, HUMI - 31 % ]
Temperature is NORMAL [ TEMP - 97.96`F, HUMI - 37 % ]
Temperature is HIGH [ TEMP - 100.66`F, HUMI - 46 % ]
Temperature is HIGH [ TEMP - 100.04`F, HUMI - 52 % ]
Temperature is NORMAL [ TEMP - 98.52`F, HUMI - 40 % ]
Temperature is HIGH [ TEMP - 100.66`F, HUMI - 31 % ]
Temperature is LOW [ TEMP - 96.71`F, HUMI - 58 % ]
Temperature is LOW [ TEMP - 96.77`F, HUMI - 50 % ]
Temperature is HIGH [ TEMP - 100.06`F, HUMI - 32 % ]
Temperature is NORMAL [ TEMP - 97.0`F, HUMI - 39 % ]
Temperature is NORMAL [ TEMP - 97.59`F, HUMI - 43 % ]
Temperature is HIGH [ TEMP - 99.91`F, HUMI - 34 % ]
Temperature is LOW [ TEMP - 95.26`F, HUMI - 56 % ]
Temperature is HIGH [ TEMP - 100.23`F, HUMI - 57 % ]
Temperature is LOW [ TEMP - 96.42`F, HUMI - 38 % ]
Temperature is LOW [ TEMP - 96.57`F, HUMI - 31 % ]
Temperature is NORMAL [ TEMP - 97.54`F, HUMI - 36 % ]
Temperature is LOW [ TEMP - 96.68`F, HUMI - 50 % ]
Temperature is HIGH [ TEMP - 99.29`F, HUMI - 30 % ]
Temperature is LOW [ TEMP - 96.82`F, HUMI - 44 % ]
Temperature is NORMAL [ TEMP - 98.15`F, HUMI - 38 % ]
Temperature is HIGH [ TEMP - 99.25`F, HUMI - 61 % ]
Temperature is LOW [ TEMP - 96.47`F, HUMI - 56 % ]
Temperature is LOW [ TEMP - 95.5`F, HUMI - 31 % ]
Temperature is LOW [ TEMP - 95.26`F, HUMI - 57 % ]
Temperature is LOW [ TEMP - 96.23`F, HUMI - 53 % ]
Temperature is LOW [ TEMP - 95.62`F, HUMI - 54 % ]
Temperature is HIGH [ TEMP - 99.77`F, HUMI - 49 % ]
Temperature is NORMAL [ TEMP - 98.94`F, HUMI - 32 % ]
Temperature is NORMAL [ TEMP - 97.67`F, HUMI - 40 % ]
Temperature is LOW [ TEMP - 96.74`F, HUMI - 54 % ]
Temperature is HIGH [ TEMP - 100.35`F, HUMI - 59 % ]
Temperature is HIGH [ TEMP - 99.97`F, HUMI - 40 % ]
Temperature is HIGH [ TEMP - 100.83`F, HUMI - 31 % ]
Temperature is LOW [ TEMP - 95.76`F, HUMI - 62 % ]
Temperature is LOW [ TEMP - 96.38`F, HUMI - 51 % ]

```