

**Assignment -2**  
Python Programming

Assignment Date	24 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 random
```

```
def alert(msg):  
    print(msg)
```

```
def read_humidity_from_sensor():  
    return random.randint(10,100)
```

```
def read_temperature_from_sensor():  
    return random.randint(-100,100)
```

```
def start_tracking():
```

```
    while True:  
        temperature = read_temperature_from_sensor()  
        humidity = read_humidity_from_sensor()
```

```
if temperature >= 40:
    alert("High Temperature")
elif temperature <= 25 and temperature >= 10:
    alert("Low Temperature")
elif temperature <= 10:
    alert("Very Low Temperature")
else:
    alert("Normal Temperature")
if humidity >= 80:
    alert("Very High Humidity")
elif humidity >= 50:
    alert("High Humidity")
elif humidity <= 30:
    alert("Low Humidity")
else:
    alert("Moderate Humidity")

if __name__ == "__main__":
    start_tracking()
```

## OUTPUT:

Programiz Python Online Compiler

main.py

Run

Shell

```
1 import random
2 def alert(msg):
3     print(msg)
4 def read_humidity_from_sensor():
5     return random.randint(10, 100)
6 def read_temperature_from_sensor():
7     return random.randint(-100, 100)
8 def start_tracking():
9     while True:
10         temperature = read_temperature_from_sensor()
11         humidity = read_humidity_from_sensor()
12         if temperature >= 40:
13             alert("High Temperature")
14         elif temperature <= 25 and temperature >= 10:
15             alert("Low Temperature")
16         elif temperature <= 10:
17             alert("Very Low Temperature")
18         else:
19             alert("Normal Temperature")
20         if humidity >= 80:
21             alert("Very High Humidity")
22         elif humidity >= 50:
23             alert("High Humidity")
24         elif humidity <= 30:
25             alert("Low Humidity")
26         else:
27             alert("Moderate Humidity")
28 if __name__ == "__main__":
29     start_tracking()
```

▲

Very High Humidity

Low Temperature

High Humidity

High Temperature

Low Humidity

Very Low Temperature

Low Humidity

Very Low Temperature

Low Humidity

High Temperature

Moderate Humidity

Very Low Temperature

Moderate Humidity

Very Low Temperature

Low Humidity

Normal Temperature

Low Humidity

Very Low Temperature

High Humidity

High Temperature

High Humidity

Very Low Temperature

High Humidity

Very Low Temperature

Very High Humidity

Very Low Temperature

Very High Humidity

High Temperature

High Humidity

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