

**Assignment -2**  
Python Programming

Assignment Date	24 September 2022
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Maximum Marks	2 Marks

**Question-1:**

Build a python code, assume you 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
class getRandomValues:
    def getTemperature(self):
        return str(random.randint(1, 50))
    def getHumidity(self):
        return str(random.randint(1, 100))
    def CheckwithThreshold(self,temp,humidity):
        if (int(temp) > 32 or int(humidity) > 60):
            print("\t.....Alert.....\t")
            print("The Temperature and Humidity is high")
            exit()
        else:
            print("The Temperature and Humidity is Normal")

values = getRandomValues()
while (True):
    temp = values.getTemperature()
    humidity = values.getHumidity()
    print("The Temperature is : "+temp)
    print("The Humidity is : "+humidity)
    values.CheckwithThreshold(temp,humidity)
```

The screenshot shows the Visual Studio Code interface with a Python file named `assignment 2.py` open. The Explorer sidebar on the left shows a file tree with `HTML`, `.vscode`, `Example.html`, and `MyScript.js`. The main editor displays the following Python code:

```
1 import random
2 class getRandomValues:
3     def getTemperature(self):
4         return str(random.randint(1, 50))
5     def getHumidity(self):
6         return str(random.randint(1, 100))
7     def checkwithThreshold(self,temp,humidity):
8         if (int(temp) > 32 or int(humidity) > 60):
9             print("\t.....Alert.....\t")
10            print("The Temperature and Humidity is high")
11            exit()
12         else:
13             print("The Temperature and Humidity is Normal")
14
15 values = getRandomValues()
16 while (True):
17     temp = values.getTemperature()
18     humidity = values.getHumidity()
19     print("The Temperature is : "+temp)
20     print("The Humidity is : "+humidity)
21     values.checkwithThreshold(temp,humidity)]
```

The TERMINAL panel at the bottom shows the command prompt output after running the script:

```
PS C:\Users\ptmha\OneDrive\Desktop\VS Code\HTML> & c:/Users/ptmha/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/ptmha/OneDrive/Desktop/VS Code/Java/assignment 2.py"
The Temperature is : 14
The Humidity is : 45
The Temperature and Humidity is Normal
The Temperature is : 18
The Humidity is : 32
The Temperature and Humidity is Normal
The Temperature is : 43
The Humidity is : 6
.....Alert.....
The Temperature and Humidity is high
PS C:\Users\ptmha\OneDrive\Desktop\VS Code\HTML>
```

The status bar at the bottom indicates the current cursor position is at Line 21, Column 45, with 4 spaces, UTF-8 encoding, CRLF line endings, and Python 3.10.7 64-bit.