THIAGARAJAR COLLEGE OF ENGINEERING

ASSIGNMENT - 2

Team Members:

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- Build a python code, Assume you get temperature and humidity values (generated with random functions to a variable) and write a condition to continuously detect alarm in case of high temperature

Code:

'''

Let us consider normal temperature=40 Celsius and normal humidity=65% '''

```
import random Temperature=random.randint(1,100)
Humidity=random.randint(1,100) print("Temperature:")
print(Temperature) print("Humidity:")
print(Humidity)


if((Temperature>40)&(Humidity>65)): print("Values are
HIGH!!! ") print("ALERT")
if((Temperature>40)&(Humidity<65)):
print("Tempertaure Value is HIGH!!! ") print("Check
Temperature")
if((Temperature<40)&(Humidity>65)):
```

print("Humidity Value is HIGH!!! ") print("Check Humidity") if((Temperature<40)&(Humidity<65)): print("All Values are in limit!!! ") print("SAFE ZONE")

Output:

```
main.py                                    Run        Shell
1
2   import random                                      Temperature:
3   Temperature=random.randint(1,100)                  19
4   Humidity=random.randint(1,100)                     Humidity:
5   print("Temperature:")                              56
6   print(Temperature)                                 All Values are in limit!!!
7   print("Humidity:")                                 SAFE ZONE
8   print(Humidity)                                    >
9
10 - if((Temperature>40)&(Humidity>65)):
11      print("Values are HIGH!!! ")
12      print("ALERT")
13 - if((Temperature>40)&(Humidity<65)):
14      print("Tempertaure Value is HIGH!!! ")
15      print("Check Temperature")
16 - if((Temperature<40)&(Humidity>65)):
17      print("Humidity Value is HIGH!!! ")
18      print("Check Humidity")
19 - if((Temperature<40)&(Humidity<65)):
20      print("All Values are in limit!!! ")
21      print("SAFE ZONE")
```

main.py

```python
import random
Temperature=random.randint(1,100)
Humidity=random.randint(1,100)
print("Temperature:")
print(Temperature)
print("Humidity:")
print(Humidity)

if((Temperature>40)&(Humidity>65)):
    print("Values are HIGH!!! ")
    print("ALERT")
if((Temperature>40)&(Humidity<65)):
    print("Tempertaure Value is HIGH!!! ")
    print("Check Temperature")
if((Temperature<40)&(Humidity>65)):
    print("Humidity Value is HIGH!!! ")
    print("Check Humidity")
if((Temperature<40)&(Humidity<65)):
    print("All Values are in limit!!! ")
    print("SAFE ZONE")
```

Shell | Clear

```
Temperature:
45
Humidity:
23
Tempertaure Value is HIGH!!!
Check Temperature
>
```

```python
import random
Temperature=random.randint(1,100)
Humidity=random.randint(1,100)
print("Temperature:")
print(Temperature)
print("Humidity:")
print(Humidity)

if((Temperature>40)&(Humidity>65)):
    print("Values are HIGH!!! ")
    print("ALERT")
if((Temperature>40)&(Humidity<65)):
    print("Tempertaure Value is HIGH!!! ")
    print("Check Temperature")
if((Temperature<40)&(Humidity>65)):
    print("Humidity Value is HIGH!!! ")
    print("Check Humidity")
if((Temperature<40)&(Humidity<65)):
    print("All Values are in limit!!! ")
    print("SAFE ZONE")
```

Shell

```
Temperature:
8
Humidity:
75
Humidity Value is HIGH!!!
Check Humidity
>
```

6

```python
1
2  import random
3  Temperature=random.randint(1,100)
4  Humidity=random.randint(1,100)
5  print("Temperature:")
6  print(Temperature)
7  print("Humidity:")
8  print(Humidity)
9
10 if((Temperature>40)&(Humidity>65)):
11     print("Values are HIGH!!! ")
12     print("ALERT")
13 if((Temperature>40)&(Humidity<65)):
14     print("Tempertaure Value is HIGH!!! ")
15     print("Check Temperature")
16 if((Temperature<40)&(Humidity>65)):
17     print("Humidity Value is HIGH!!! ")
18     print("Check Humidity")
19 if((Temperature<40)&(Humidity<65)):
20     print("All Values are in limit!!! ")
21     print("SAFE ZONE")
22
```

Shell

```
Temperature:
91
Humidity:
72
Values are HIGH!!!
ALERT
>
>
```