

## ASSIGNMENT -2

### **QUESTION-1:**

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.

#### SOLUTION:

```
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

```
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:
19
Humidity:
56
All Values are in limit!!! |
SAFE ZONE
>

main.py




Run




```
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

Clear

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

main.py	  	Shell
<pre>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&gt;40)&amp;(Humidity&gt;65)): 11     print("Values are HIGH!!! ") 12     print("ALERT") 13- if((Temperature&gt;40)&amp;(Humidity&lt;65)): 14     print("Tempertaure Value is HIGH!!! ") 15     print("Check Temperature") 16- if((Temperature&lt;40)&amp;(Humidity&gt;65)): 17     print("Humidity Value is HIGH!!! ") 18     print("Check Humidity") 19- if((Temperature&lt;40)&amp;(Humidity&lt;65)): 20     print("All Values are in limit!!! ") 21     print("SAFE ZONE") 22</pre>		<pre>Temperature: 8 Humidity: 75 Humidity Value is HIGH!!! Check Humidity &gt;</pre>

main.py	  	Shell
<pre>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&gt;40)&amp;(Humidity&gt;65)): 11     print("Values are HIGH!!! ") 12     print("ALERT") 13- if((Temperature&gt;40)&amp;(Humidity&lt;65)): 14     print("Tempertaure Value is HIGH!!! ") 15     print("Check Temperature") 16- if((Temperature&lt;40)&amp;(Humidity&gt;65)): 17     print("Humidity Value is HIGH!!! ") 18     print("Check Humidity") 19- if((Temperature&lt;40)&amp;(Humidity&lt;65)): 20     print("All Values are in limit!!! ") 21     print("SAFE ZONE") 22</pre>		<pre>Temperature: 91 Humidity: 72 Values are HIGH!!! ALERT &gt; &gt;</pre>