

ASSIGNMENT -2
PYTHON PROGRAMMING

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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.randrange(
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")
elif((Temperature>40)&(Humidity<65)):
print("Temperature 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
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
```

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

```
main.py  Run Shell Clear
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
```

```
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>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</pre>		<pre>Temperature: 8 Humidity: 75 Humidity Value is HIGH!!! Check Humidity ></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>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</pre>		<pre>Temperature: 91 Humidity: 72 Values are HIGH!!! ALERT > ></pre>