

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





```
if((Temperature>40)&(Humid
ity>65)): print("Values are
HIGH!!! ") print("ALERT")
elif((Temperature>40)&(Hum
idity<65)):
print("Tempertaure Value is
HIGH!!! ") print("Check
Temperature")
if((Temperature<40)&(Humid
ity>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	  	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: 19 Humidity: 56 All Values are in limit!!! SAFE ZONE ></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: 45 Humidity: 23 Tempertaure Value is HIGH!!! Check Temperature > </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: 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>