

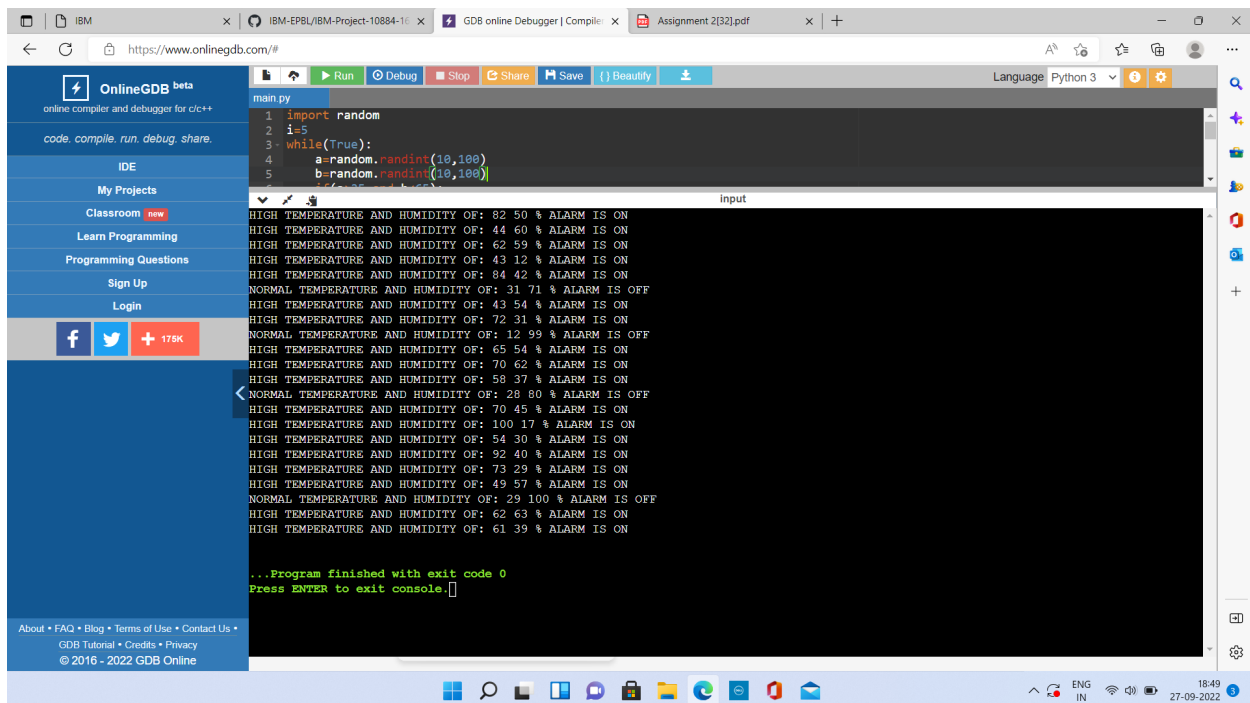
# IOT ASSIGNMENT-2

**TOPIC:** Assignment on temperature and humidity sensing and alarm automation using python

CODE:

```
import random
i=5:
while(True):
    a=random.randint(10,100)
    b=random.randint(10,100)
    if(a>35 and b<65):
        print("HIGH TEMPERATURE AND HUMIDITY OF:",a,b,"%","ALARM IS ON")
    elif(a<35 and b>65):
        print("NORMAL TEMPERATURE AND HUMIDITY OF:",a,b,"%","ALARM IS OFF")
    if(i<55):
        i=i+1
        random
    else:
        break
```

## output



The screenshot displays the OnlineGDB IDE interface. The code editor shows a Python script that imports the random module, initializes a counter i=5, and enters a while loop. Inside the loop, it generates random temperature (a) and humidity (b) values between 10 and 100. It then checks if the temperature is greater than 35 and humidity is less than 65. If true, it prints "HIGH TEMPERATURE AND HUMIDITY OF: [a], [b], % ALARM IS ON". If false, it prints "NORMAL TEMPERATURE AND HUMIDITY OF: [a], [b], % ALARM IS OFF". The counter i is incremented by 1, and the random module is imported again. The loop continues until i reaches 55. The output window shows the results of the program execution, displaying the generated values and the corresponding alarm status for each iteration.

```
main.py
1 import random
2 i=5
3 while(True):
4     a=random.randint(10,100)
5     b=random.randint(10,100)
6     if(a>35 and b<65):
7         print("HIGH TEMPERATURE AND HUMIDITY OF:",a,b,"%","ALARM IS ON")
8     elif(a<35 and b>65):
9         print("NORMAL TEMPERATURE AND HUMIDITY OF:",a,b,"%","ALARM IS OFF")
10    if(i<55):
11        i=i+1
12        random
13    else:
14        break
15
...Program finished with exit code 0
Press ENTER to exit console.
```

Output:

```
HIGH TEMPERATURE AND HUMIDITY OF: 82 50 % ALARM IS ON
HIGH TEMPERATURE AND HUMIDITY OF: 44 60 % ALARM IS ON
HIGH TEMPERATURE AND HUMIDITY OF: 62 59 % ALARM IS ON
HIGH TEMPERATURE AND HUMIDITY OF: 43 12 % ALARM IS ON
HIGH TEMPERATURE AND HUMIDITY OF: 84 42 % ALARM IS ON
NORMAL TEMPERATURE AND HUMIDITY OF: 31 71 % ALARM IS OFF
HIGH TEMPERATURE AND HUMIDITY OF: 43 54 % ALARM IS ON
HIGH TEMPERATURE AND HUMIDITY OF: 72 31 % ALARM IS ON
NORMAL TEMPERATURE AND HUMIDITY OF: 12 99 % ALARM IS OFF
HIGH TEMPERATURE AND HUMIDITY OF: 65 54 % ALARM IS ON
HIGH TEMPERATURE AND HUMIDITY OF: 70 62 % ALARM IS ON
HIGH TEMPERATURE AND HUMIDITY OF: 59 37 % ALARM IS ON
NORMAL TEMPERATURE AND HUMIDITY OF: 28 80 % ALARM IS OFF
HIGH TEMPERATURE AND HUMIDITY OF: 70 45 % ALARM IS ON
HIGH TEMPERATURE AND HUMIDITY OF: 100 17 % ALARM IS ON
HIGH TEMPERATURE AND HUMIDITY OF: 54 30 % ALARM IS ON
HIGH TEMPERATURE AND HUMIDITY OF: 92 40 % ALARM IS ON
HIGH TEMPERATURE AND HUMIDITY OF: 73 29 % ALARM IS ON
HIGH TEMPERATURE AND HUMIDITY OF: 49 57 % ALARM IS ON
NORMAL TEMPERATURE AND HUMIDITY OF: 29 100 % ALARM IS OFF
HIGH TEMPERATURE AND HUMIDITY OF: 62 63 % ALARM IS ON
HIGH TEMPERATURE AND HUMIDITY OF: 61 39 % ALARM IS ON
```

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