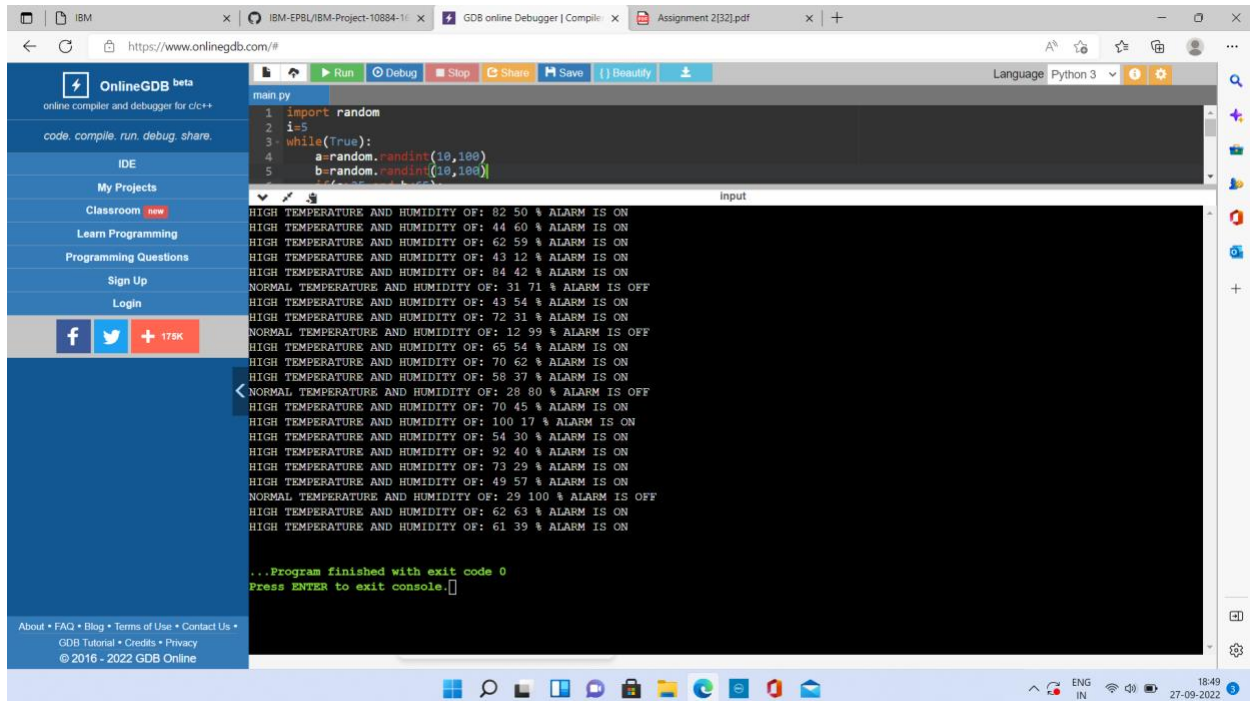


IOT ASSIGNMENT 2

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
```



The screenshot displays the OnlineGDB web interface. The code editor shows a Python script that imports the random module and uses a while loop to generate random temperature (a) and humidity (b) values. It then checks if the temperature is above 35 and humidity is below 65 (alarm on) or if the temperature is below 35 and humidity is above 65 (alarm off). The output console shows the results of these checks for 55 iterations, alternating between 'ALARM IS ON' and 'ALARM IS OFF' based on the generated values. The program finishes with exit code 0.

```
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
```

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: 58 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

...Program finished with exit code 0
Press ENTER to exit console.
```