

IOT ASSIGNMENT

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

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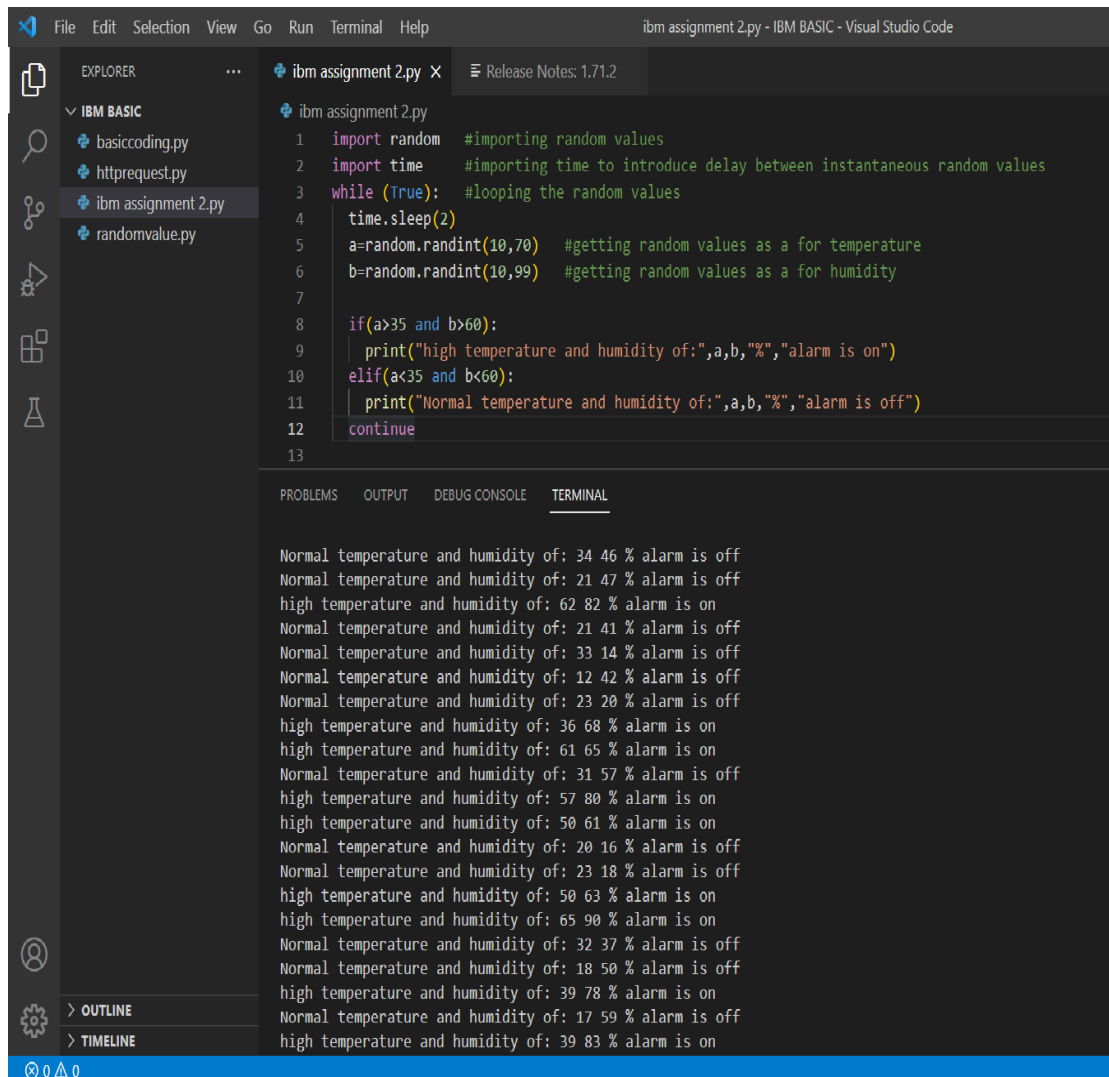
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CODE:

```
import random #importing random variables
import time #importing time to introduce delay between instantaneous
random values
while(True): #looping the random values
    time:sleep(2)
    a=random.randint(10,70) #getting random values as a for
temperature
    b=random.randint(10,99) #getting random values as a for
humidity
    if(a>35 and b>60):
        print("high temperature and humidity of :",a,b,"%","alarm is
on")
    elif(a<35 and b<60):
        print("Normal temperature and humidity of :",a,b,"%","alarm
is off")

    continue
```

OUTPUT:



The screenshot displays the Visual Studio Code interface. The Explorer sidebar on the left shows a project named 'IBM BASIC' containing files: 'basiccoding.py', 'httprequest.py', 'ibm assignment 2.py' (selected), and 'randomvalue.py'. The main editor window shows the code for 'ibm assignment 2.py'. The code is a Python script that imports 'random' and 'time', enters a 'while (True):' loop, sleeps for 2 seconds, generates random temperature and humidity values, and prints a message indicating if the alarm is on or off based on these values. The output window at the bottom shows the execution results, displaying a series of printed messages like 'Normal temperature and humidity of: 34 46 % alarm is off' and 'high temperature and humidity of: 62 82 % alarm is on'.

```
File Edit Selection View Go Run Terminal Help ibm assignment 2.py - IBM BASIC - Visual Studio Code

EXPLORER
  IBM BASIC
    basiccoding.py
    httprequest.py
    ibm assignment 2.py
    randomvalue.py

ibm assignment 2.py
1  import random  #importing random values
2  import time    #importing time to introduce delay between instantaneous random values
3  while (True):  #looping the random values
4      time.sleep(2)
5      a=random.randint(10,70) #getting random values as a for temperature
6      b=random.randint(10,99) #getting random values as a for humidity
7
8      if(a>35 and b>60):
9          print("high temperature and humidity of:",a,b,"%","alarm is on")
10     elif(a<35 and b<60):
11         print("Normal temperature and humidity of:",a,b,"%","alarm is off")
12     continue
13

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Normal temperature and humidity of: 34 46 % alarm is off
Normal temperature and humidity of: 21 47 % alarm is off
high temperature and humidity of: 62 82 % alarm is on
Normal temperature and humidity of: 21 41 % alarm is off
Normal temperature and humidity of: 33 14 % alarm is off
Normal temperature and humidity of: 12 42 % alarm is off
Normal temperature and humidity of: 23 20 % alarm is off
high temperature and humidity of: 36 68 % alarm is on
high temperature and humidity of: 61 65 % alarm is on
Normal temperature and humidity of: 31 57 % alarm is off
high temperature and humidity of: 57 80 % alarm is on
high temperature and humidity of: 50 61 % alarm is on
Normal temperature and humidity of: 20 16 % alarm is off
Normal temperature and humidity of: 23 18 % alarm is off
high temperature and humidity of: 50 63 % alarm is on
high temperature and humidity of: 65 90 % alarm is on
Normal temperature and humidity of: 32 37 % alarm is off
Normal temperature and humidity of: 18 50 % alarm is off
high temperature and humidity of: 39 78 % alarm is on
Normal temperature and humidity of: 17 59 % alarm is off
high temperature and humidity of: 39 83 % alarm is on

> OUTLINE
> TIMELINE
```