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ASSIGNMENT-2

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PROBLEM STATEMENT:

Build a python code, Assume u get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

CODE:

```
import random

import winsound

import sys

freq=440

duration=10000

while(True):

    temperature=random.randint(10,100)

    humidity=random.randint(10,100)

    print("Current Temperature=",temperature)

    print("Current Humidity=",humidity,'%')

    stable_temperature=37

    stable_humidity=45

    if temperature>stable_temperature and humidity>stable_humidity:

        print("High Temperature BEEP ALARM")

        winsound.Beep(freq,duration)

    else:

        print("Everything Fine NO ALARM")
```

```
sys.exit(100)
```

CODE EXPLANATION;

RANDOM: module used to generate random values from (10-100) using randint for variables temperature and humidity

WINSOUND: module is used to create beep with duration and frequency variables(it does beep withing given duration and certain frequency)

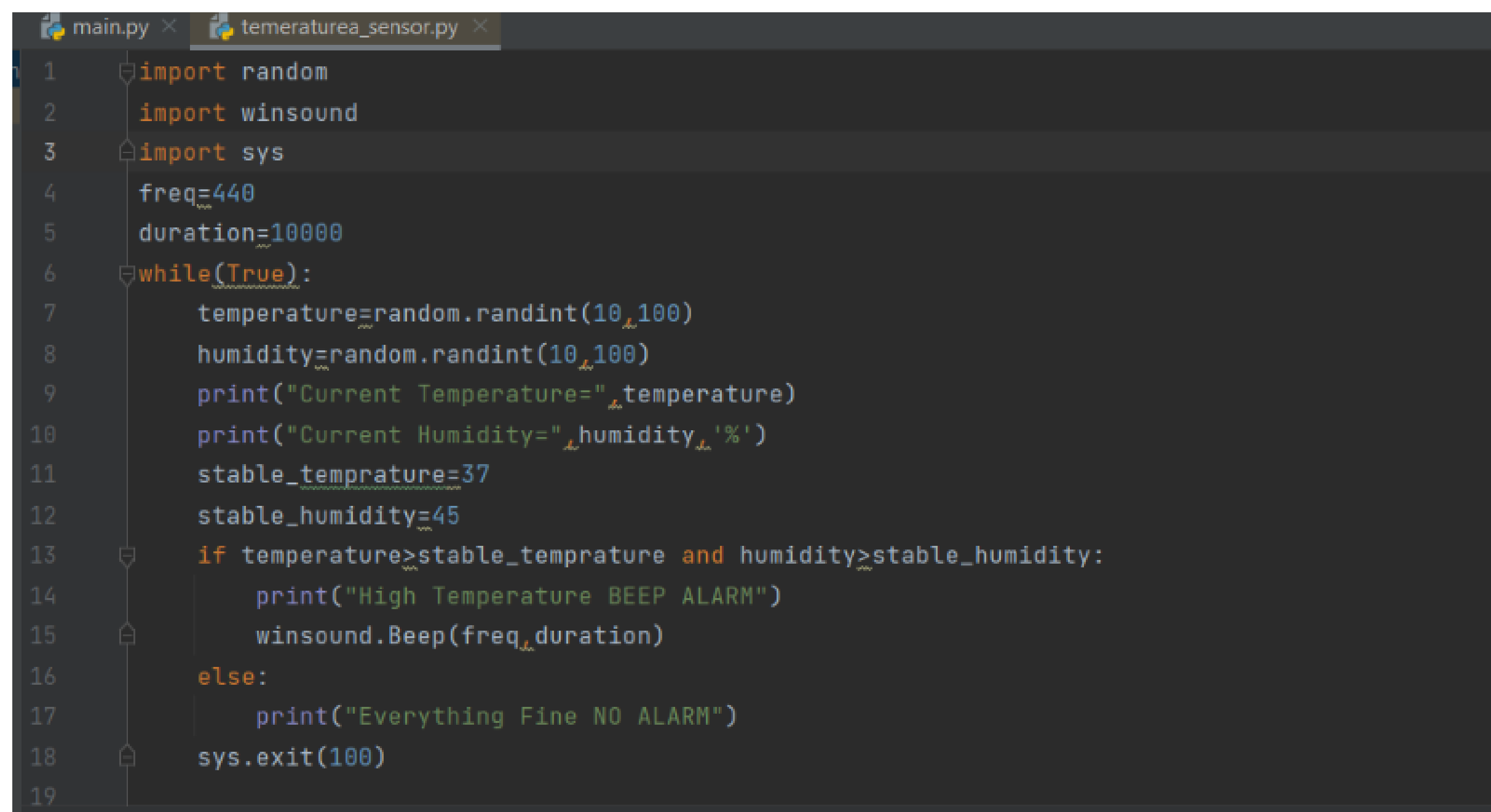
SYS: module used to clear memory and exit correctly once program completes execution

WHAT PROGRAM DOES:

The program gets random values from random module for temperature and humidity and checks condition with fixed value of humidity(good range(30-45)) and temperature(ideal range(25-37)) and beeps if temperature is above the fixed level using winsound.

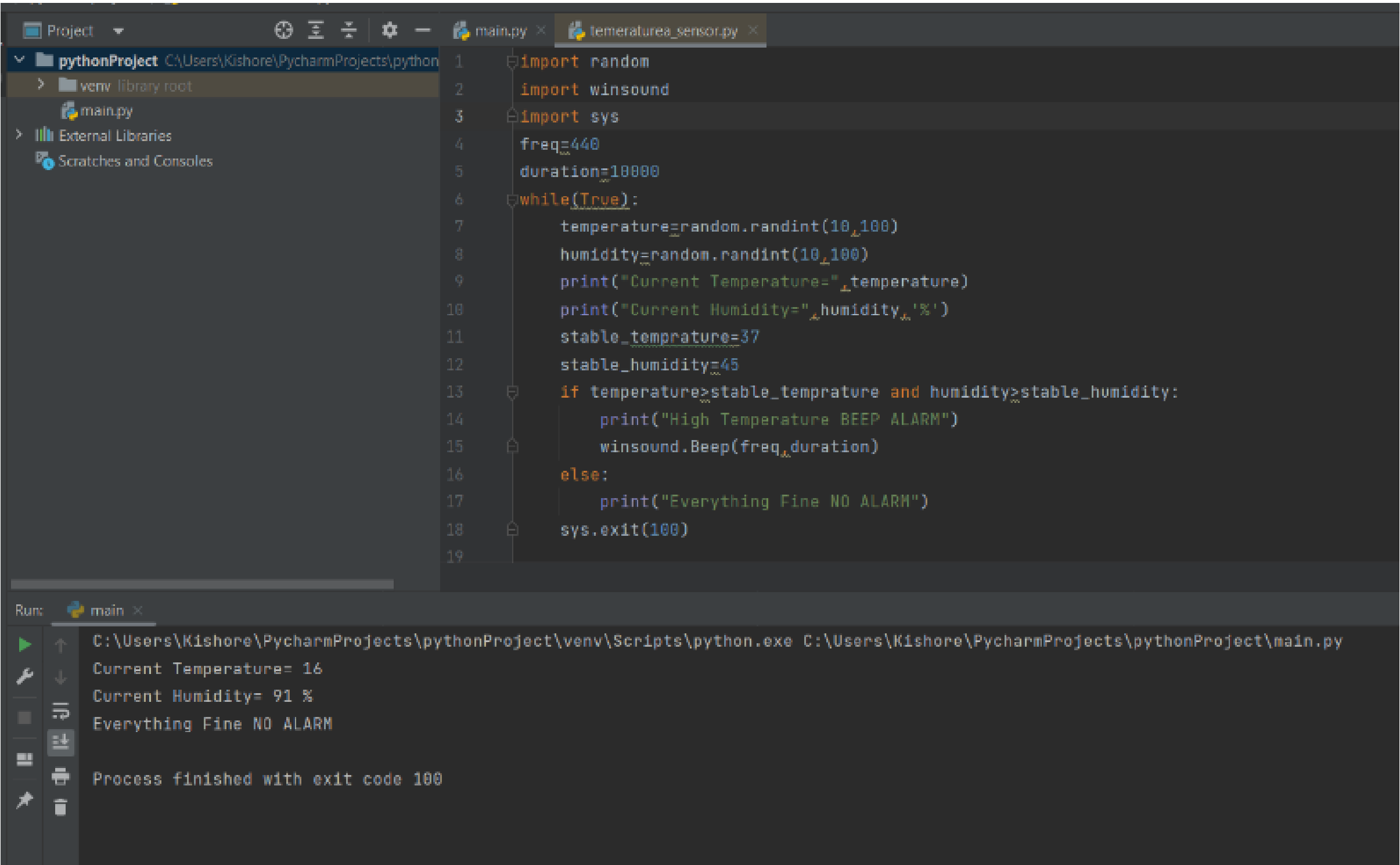
RESULT:

CODE:



```
1 import random
2 import winsound
3 import sys
4 freq=440
5 duration=10000
6 while(True):
7     temperature=random.randint(10,100)
8     humidity=random.randint(10,100)
9     print("Current Temperature=",temperature)
10    print("Current Humidity=",humidity,'%')
11    stable_temprature=37
12    stable_humidity=45
13    if temperature>stable_temprature and humidity>stable_humidity:
14        print("High Temperature BEEP ALARM")
15        winsound.Beep(freq,duration)
16    else:
17        print("Everything Fine NO ALARM")
18    sys.exit(100)
19
```

CASE1:(NO ALARM SAFE TEMPERATURE)



CASE 2:HIGH TEMERATURE-ALARM BEEP

