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ASSIGNMENT-2

IBM-PERSONAL ASSISTANCE FOR PEOPLE WHO ARE SELF-RELAINT

SONA COLLEGE OF TECHNOLOGY

PROBLEM STATEMENT:

Build a python code, Assume u get temperature and humidity values(generated with random function toa 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_temprature=37

    stable_humidity=45

if temperature>stable_temprature 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 within 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:

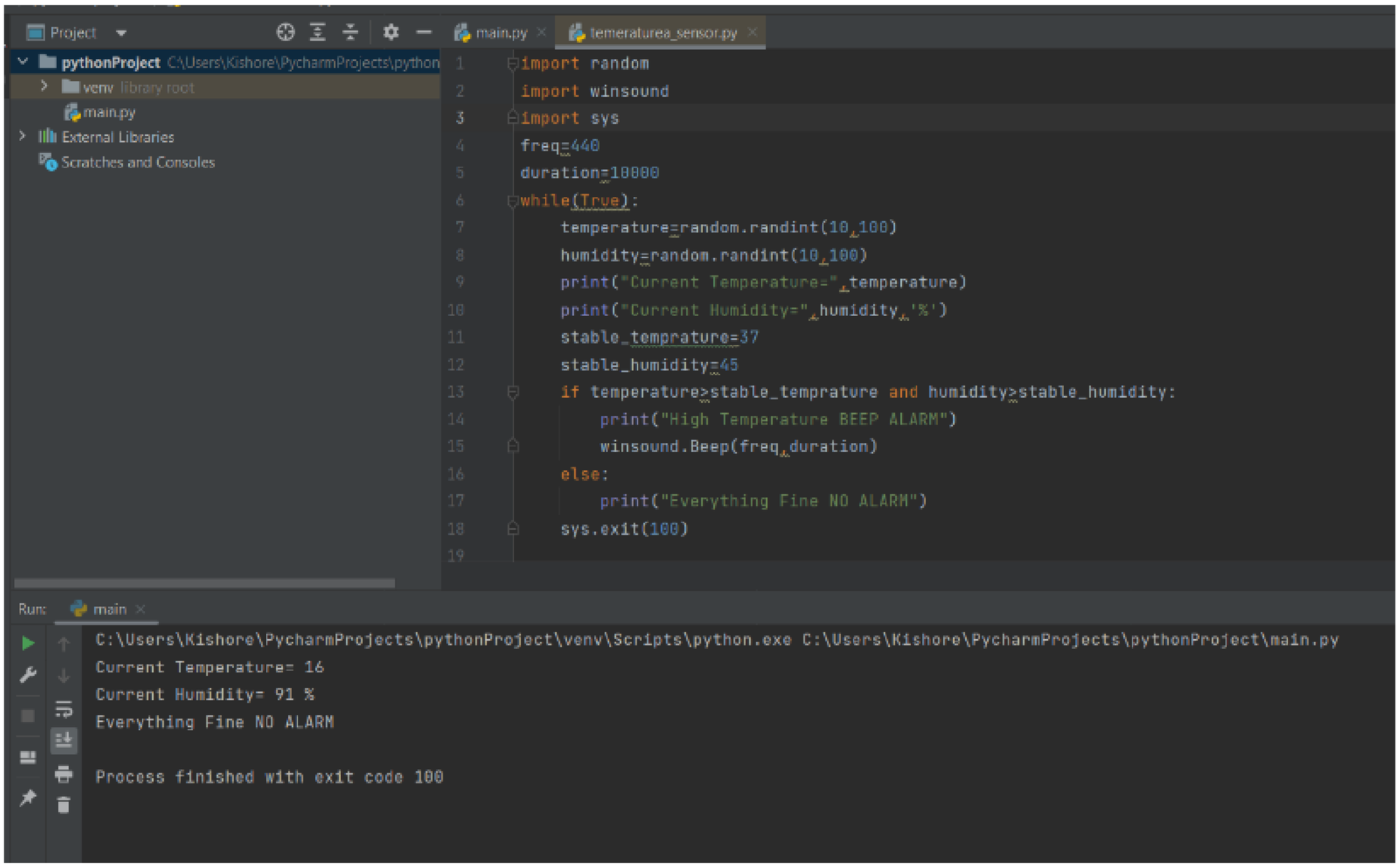
CODE:

main.py | temeraturea_sensor.py

```
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_temprature=37
    stable_humidity=45
    if temperature>stable_temprature and humidity>stable_humidity:
        print("High Temperature BEEP ALARM")
        winsound.Beep(freq,duration)
    else:
        print("Everything Fine NO ALARM")
    sys.exit(100)

```

CASE1:(NO ALARM SAFE TEMPERATURE)



CASE 2:HIGH TEMERATURE-ALARM BEEP