

SmartFarmer - IoT Enabled Smart Farming Application

IoT Assignment 2

Topic : Alarm detection based on temperature and humidity using Python3

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Aim :

To create an alarm to detect the temperature rise based on the temperature and humidity as parameters using python3.

Algorithm :

1. Start the program.
2. Get the values of temperature and humidity as input.
3. Based on given values and conditions, determine whether the alarm is triggered or not.
4. Stop the program.

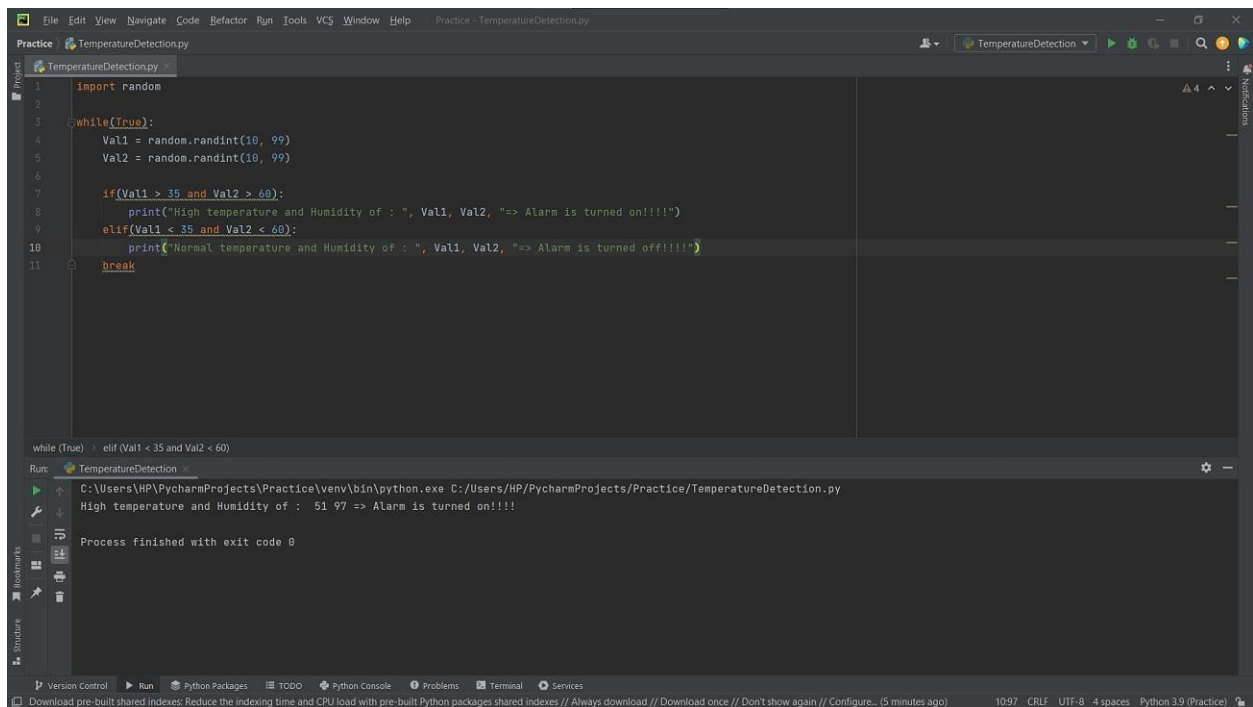
Program :

```
import random

while(True):
    Val1 = random.randint(10, 99)
    Val2 = random.randint(10, 99)

    if(Val1 > 35 and Val2 > 60):
        print("High temperature and Humidity of : ", Val1, Val2, "=> Alarm is turned on!!!!")
    elif(Val1 < 35 and Val2 < 60):
        print("Normal temperature and Humidity of : ", Val1, Val2, "=> Alarm is turned off!!!!")
    break
```

Block Diagram :



```
File Edit View Navigate Code Refactor Run Tools VCS Window Help Practice - TemperatureDetection.py
Practice TemperatureDetection.py
Project TemperatureDetection.py
1 import random
2
3 while(True):
4     Val1 = random.randint(10, 99)
5     Val2 = random.randint(10, 99)
6
7     if(Val1 > 35 and Val2 > 60):
8         print("High temperature and Humidity of : ", Val1, Val2, "=> Alarm is turned on!!!!")
9     elif(Val1 < 35 and Val2 < 60):
10        print("Normal temperature and Humidity of : ", Val1, Val2, "=> Alarm is turned off!!!!")
11    break

while (True) > elif (Val1 < 35 and Val2 < 60)
Run: TemperatureDetection
C:\Users\HP\PycharmProjects\Practice\venv\bin\python.exe C:/Users/HP/PycharmProjects/Practice/TemperatureDetection.py
High temperature and Humidity of : 51 97 => Alarm is turned on!!!!
Process finished with exit code 0
Version Control Run Python Packages TODO Python Console Problems Terminal Services
Download pre-built shared indexes: Reduce the indexing time and CPU load with pre-built Python packages shared indexes // Always download // Download once // Don't show again // Configure... (5 minutes ago) 1097 CRLF UTF-8 4 spaces Python 3.9 (Practice)
```

Result :

Thus, Alarm detection based on temperature and humidity using Python3 as assignment 2 has been successfully developed and executed.