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Subject: Professional Readiness for Innovation, Employability & Entrepreneurship (Nalaiya Thiran)

Assignment – 2 Python Program

Task – 1:

Write a python code to get a threshold temperature form the User and generate a random temperature and check whether the random temperature is greater or smaller than or equal to threshold value

Solution:

Program:

```python
import random
threshold = int(input("Enter Threshold Temperature(Range 0,50):"))
a=1
while(a==1):
    val=random.randint(0,50)
    print("Random Temperature: ",val)
    if val>threshold:
        print("Random Temp:",val,"higher than",threshold,"(Threshold Temperature)")
    elif threshold>val:
        print("Random Temp:",val,"less than",threshold,"(Threshold Temperature)")
    else:
        print("Random Temp:",val,"equals to",threshold,"(Threshold Temperature)")
    a=int(input("Enter 1 to Repeat:"))
```

Output:

```
PS D:\Nalaiya Thiran\Assignments\Narenkumar\Assignment 2> py .\RandomwithThreshold.py
Enter Threshold Temperature(Range 0,50):25
Random Temperature:  23
Random Temp: 23 less than 25 (Threshold Temperature)
Enter 1 to Repeat:1
Random Temperature:  0
Random Temp: 0 less than 25 (Threshold Temperature)
Enter 1 to Repeat:1
Random Temperature:  24
Random Temp: 24 less than 25 (Threshold Temperature)
Enter 1 to Repeat:2
PS D:\Nalaiya Thiran\Assignments\Narenkumar\Assignment 2> █
```

Explanation of Program:

Initially, we have imported the random to generate the random value. Then, we used input function with int function to get an integer input value from the user for Threshold Temperature then we initialized a=1 and started the while loop for the iterative operation of the following lines.

Then, we used random.randint function with (0,50) as parameter to generate a random temperature and stored it in val. Then, we used if-condition to check whether val is greater than threshold. if yes, print higher temperature. If no, we used elif-condition to whether val is smaller than threshold. if yes print low temperature. Else, print equal temperature.

Finally, we used input function with int function to get an integer value to know whether the user wants to generate another value or not. If Input is 1, then we repeated the above procedure, else Terminate the program Execution.