

**IBM-NALLAYA THIRAN PROJECT**  
**Real Time River Water Quality Monitoring and Control System**

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**Question:**

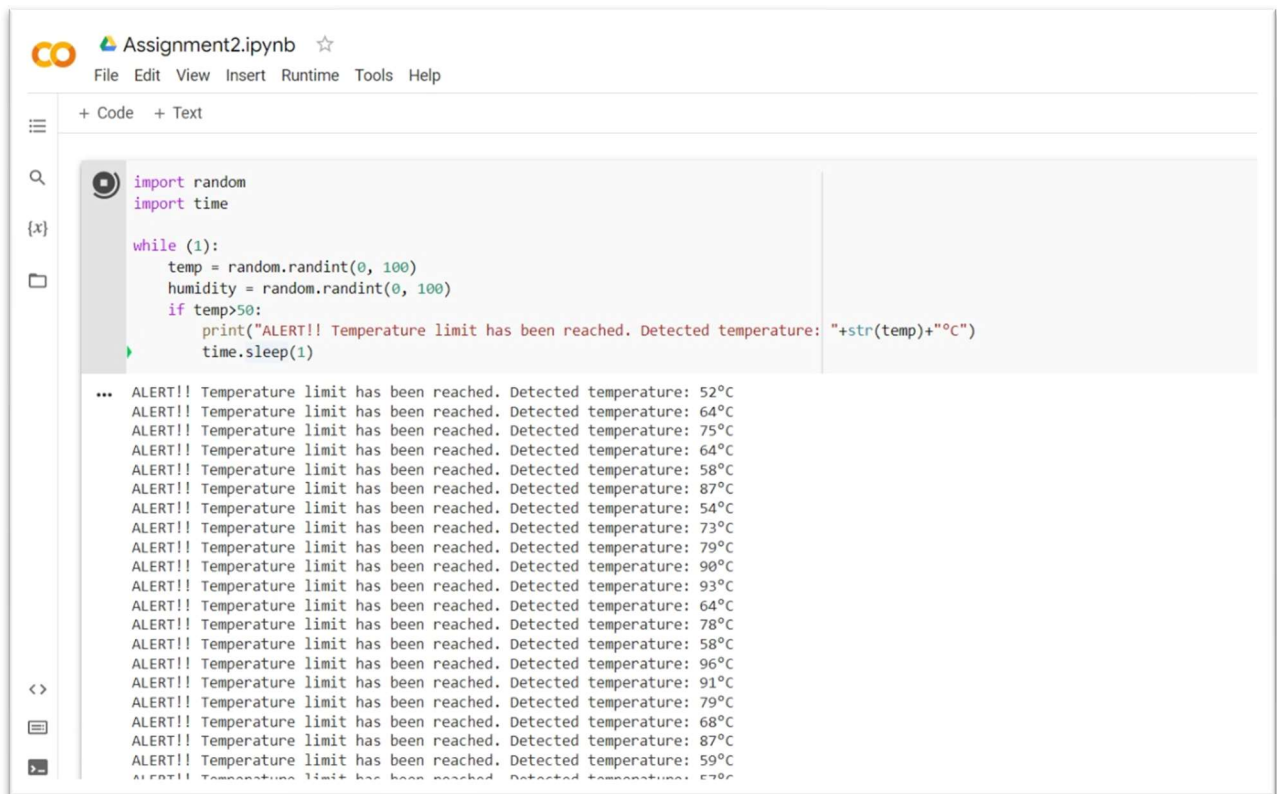
- 1. Build a python code, Assume u get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature**

**Source Code:**

```
import random
import time
```

```
while (1):
    temp = random.randint(0, 100)
    humidity = random.randint(0, 100)
    if temp>60:
        print("ALERT!! Detected temperature: "+str(temp)+"°C")
        time.sleep(1)
```

## Output Window:



The screenshot shows a Jupyter Notebook window titled "Assignment2.ipynb". The interface includes a menu bar with "File", "Edit", "View", "Insert", "Runtime", "Tools", and "Help". Below the menu bar are tabs for "+ Code" and "+ Text". On the left side, there is a sidebar with icons for a list, search, a variable {x}, a folder, and a code editor. The main area is divided into two panes. The left pane contains the following Python code:

```
import random
import time

while (1):
    temp = random.randint(0, 100)
    humidity = random.randint(0, 100)
    if temp>50:
        print("ALERT!! Temperature limit has been reached. Detected temperature: "+str(temp)+"°C")
        time.sleep(1)
```

The right pane displays the output of the code, which consists of a series of "ALERT!!" messages, each followed by a randomly generated temperature value in degrees Celsius. The output is truncated with "..." at the beginning and "ALERT!! Temperature limit has been reached. Detected temperature: 57°C" at the end.

```
... ALERT!! Temperature limit has been reached. Detected temperature: 52°C
ALERT!! Temperature limit has been reached. Detected temperature: 64°C
ALERT!! Temperature limit has been reached. Detected temperature: 75°C
ALERT!! Temperature limit has been reached. Detected temperature: 64°C
ALERT!! Temperature limit has been reached. Detected temperature: 58°C
ALERT!! Temperature limit has been reached. Detected temperature: 87°C
ALERT!! Temperature limit has been reached. Detected temperature: 54°C
ALERT!! Temperature limit has been reached. Detected temperature: 73°C
ALERT!! Temperature limit has been reached. Detected temperature: 79°C
ALERT!! Temperature limit has been reached. Detected temperature: 90°C
ALERT!! Temperature limit has been reached. Detected temperature: 93°C
ALERT!! Temperature limit has been reached. Detected temperature: 64°C
ALERT!! Temperature limit has been reached. Detected temperature: 78°C
ALERT!! Temperature limit has been reached. Detected temperature: 58°C
ALERT!! Temperature limit has been reached. Detected temperature: 96°C
ALERT!! Temperature limit has been reached. Detected temperature: 91°C
ALERT!! Temperature limit has been reached. Detected temperature: 79°C
ALERT!! Temperature limit has been reached. Detected temperature: 68°C
ALERT!! Temperature limit has been reached. Detected temperature: 87°C
ALERT!! Temperature limit has been reached. Detected temperature: 59°C
ALERT!! Temperature limit has been reached. Detected temperature: 57°C
```