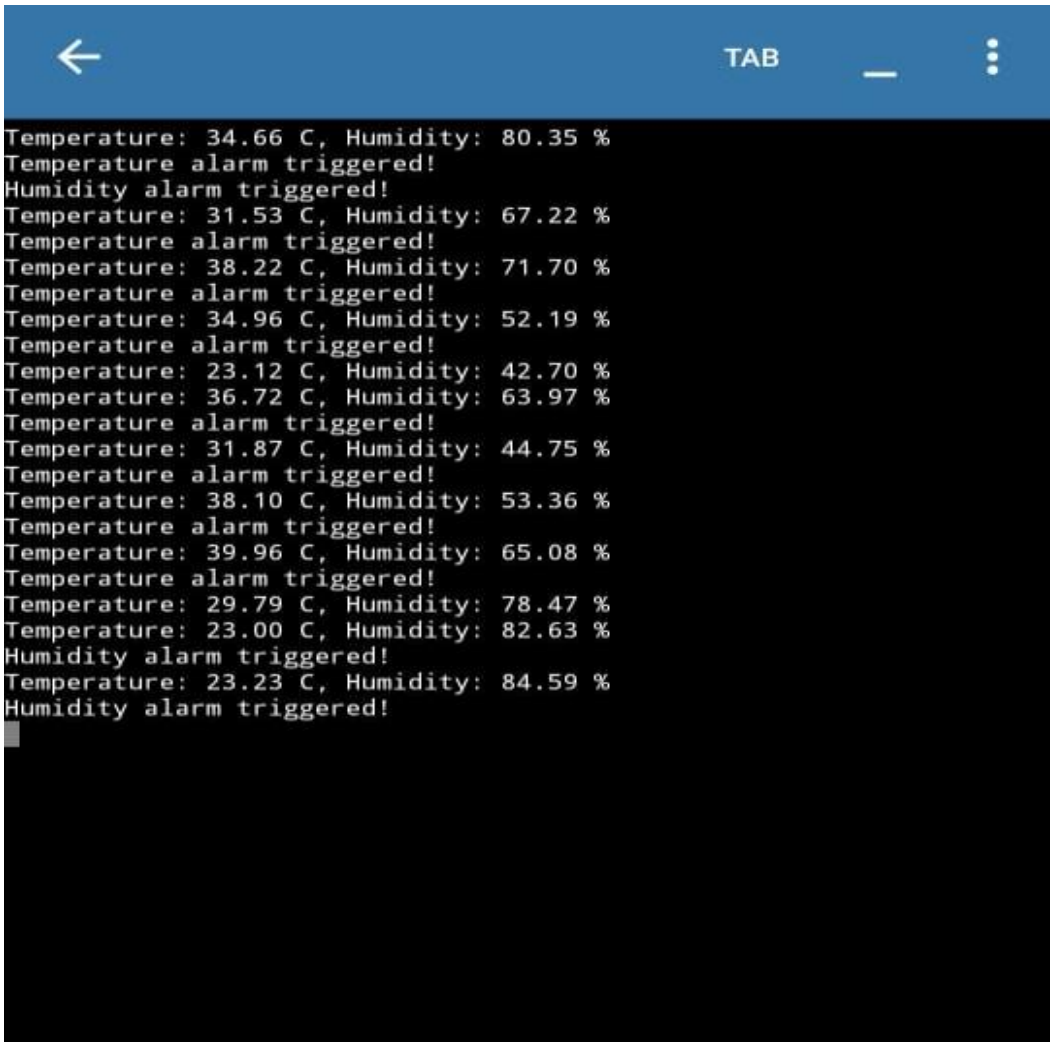
IBM ASSIGNMENT 2 - IOT DOMAIN

CODE:

```
Import random
import time
# Define the threshold values for temperature and humidity
TEMP_THRESHOLD = 30 # in Celsius
HUMIDITY_THRESHOLD = 80 # in percentage
# Function to generate random temperature and humidity values
 def generate_values():
    temp = random.uniform(20, 40) # generate temperature between 20
and 40 Celsius
    humidity = random.uniform(40, 90) # generate humidity between
40% and 90%
    return temp, humidity
# Main loop to generate values and check for alarms
while True:
    temp, humidity = generate_values()
    print(f"Temperature: {temp:.2f} C, Humidity: {humidity:.2f} %")
# Check for temperature and humidity alarms
    if temp > TEMP_THRESHOLD:
       print("Temperature alarm triggered!")
    if humidity > HUMIDITY_THRESHOLD:
       print("Humidity alarm triggered!")
# Wait for some time before generating the next values
    time.sleep(5)
```

OUTPUT:


TAB
Temperature: 34.66 C, Humidity: 80.35 %
Temperature alarm triggered!
Humidity alarm triggered!
Temperature: 31.53 C, Humidity: 67.22 %
Temperature alarm triggered!
Temperature: 38.22 C, Humidity: 71.70 %
Temperature alarm triggered!
Temperature: 34.96 C, Humidity: 52.19 %
Temperature alarm triggered!
Temperature: 23.12 C, Humidity: 42.70 %
Temperature: 36.72 C, Humidity: 63.97 %
Temperature alarm triggered!
Temperature: 31.87 C, Humidity: 44.75 %
Temperature alarm triggered!
Temperature: 38.10 C, Humidity: 53.36 %
Temperature alarm triggered!
Temperature: 39.96 C, Humidity: 65.08 %
Temperature alarm triggered!
Temperature: 29.79 C, Humidity: 78.47 %
Temperature: 23.00 C, Humidity: 82.63 %
Humidity alarm triggered!
Temperature: 23.23 C, Humidity: 84.59 %
Humidity alarm triggered!