

VIT, Vellore-Externship Program

Assignment-3

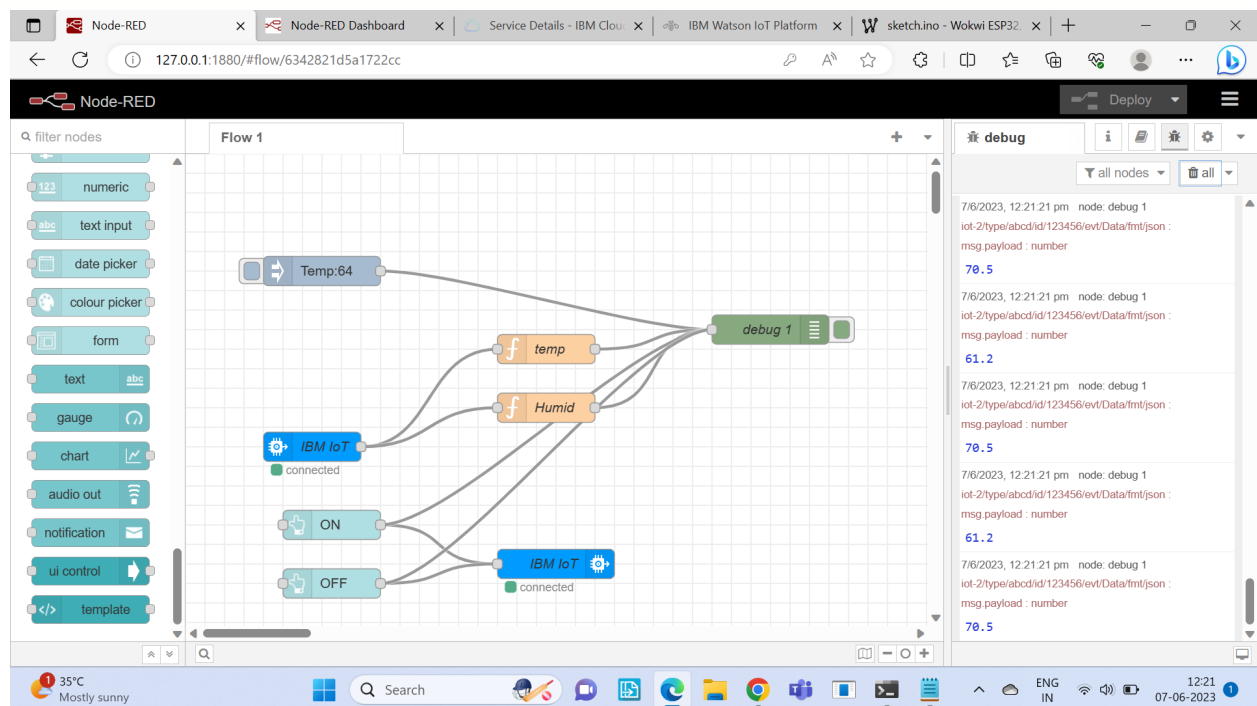
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Wokwi Link:

<https://wokwi.com/projects/366756476213644289>

Node-red:



Output:

The screenshot shows the Wokwi ESP32 simulation interface. On the left, the 'sketch.ino' file is open, displaying C++ code for an ESP32. The code includes a callback function that checks for the topic 'lighton' and sends a payload containing temperature and humidity data. The simulation area on the right shows a breadboard with an ESP32 module, a red LED, and a DHT22 sensor. The LED is currently lit, indicating the 'lighton' state. The console output shows the following sequence of events:

```
Sending payload: {"temp":61.20,"Humid":70.50}
Publish ok
callback invoked for topic: iot-2/cmd/command/fmt/String
data: lighton
lighton
temp:61.20
Humid:70.50
```

The bottom status bar shows the system temperature as 35°C and the time as 12:17 on 07-06-2023.

This screenshot shows the same Wokwi ESP32 simulation interface, but the LED is now unlit, indicating the 'lightoff' state. The console output shows the following sequence of events:

```
Sending payload: {"temp":61.20,"Humid":70.50}
Publish ok
callback invoked for topic: iot-2/cmd/command/fmt/String
data: lightoff
lightoff
temp:61.20
Humid:70.50
```

The bottom status bar shows the system temperature as 35°C and the time as 12:19 on 07-06-2023.