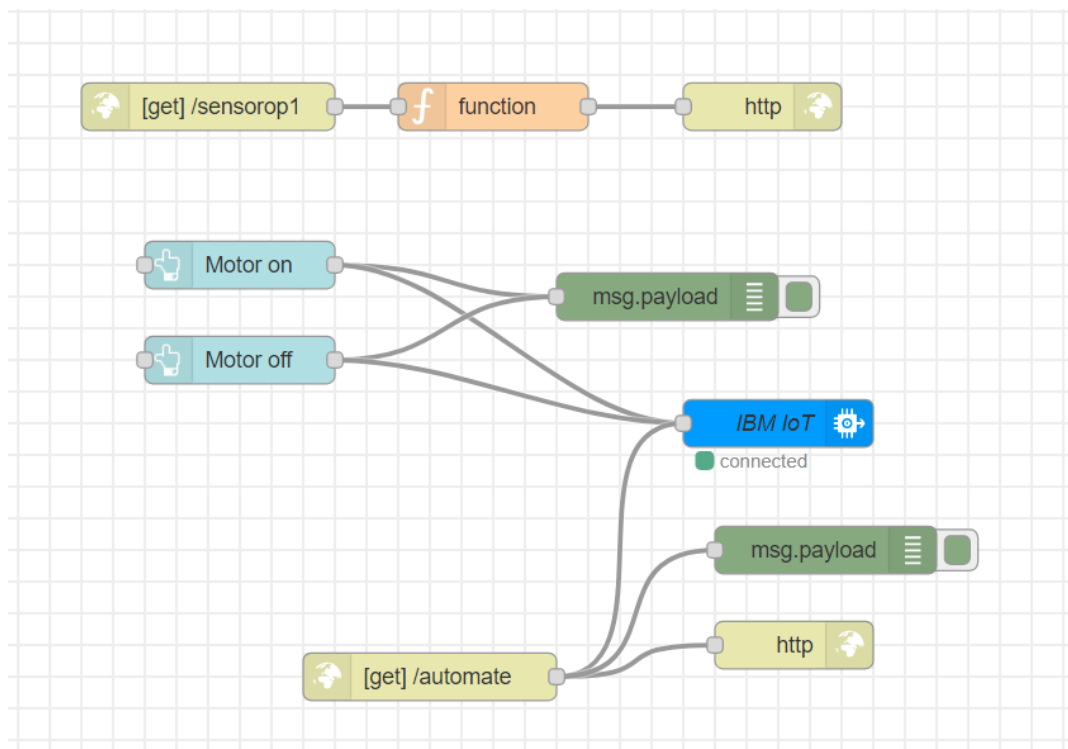
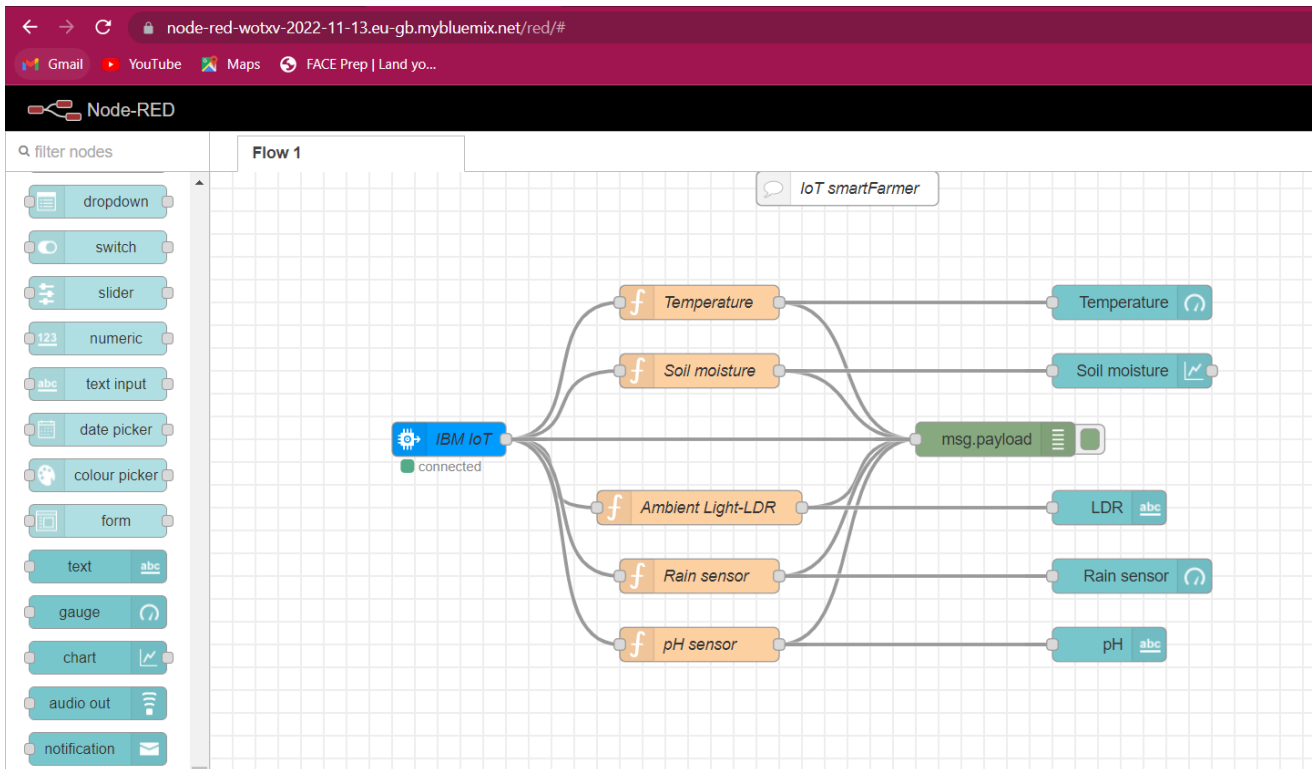


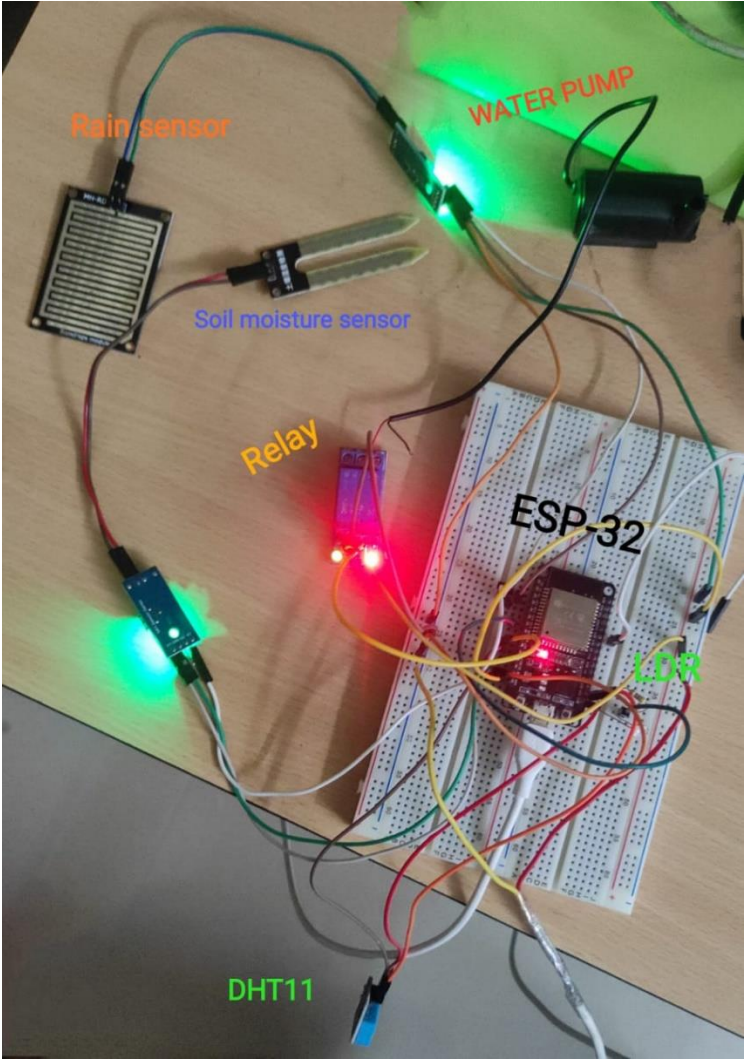
BUILD A WEB APPLICATION USING NODE-RED SERVICE

Team ID	PNT2022TMID52856
Project Name	SmartFarmer - IoT Enabled Smart Farming Application

NODE-RED FLOW:



HARDWARE & IBM IOT WATSON SETUP:



IBM Watson IoT Platform

1904106ece@clt.edu.in
ID: 94ab7c

Browse

Action

Device Types

Interfaces

Add Device

	Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
>	<input type="checkbox"/> Rk44	Disconnected	esp32_node	Device	Nov 1, 2022 10:50 PM	
▼	<input checked="" type="checkbox"/> esp2	Connected	Node	Device	Nov 13, 2022 2:13 PM	→ ...

Identity

Device Information

Recent Events

State

Logs

✕

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
status	{"Temperature":33,"Soil_moisture":17,"Ambient...	json	a few seconds ago
status	{"Temperature":54,"Soil_moisture":43,"Ambient...	json	a few seconds ago
status	{"Temperature":44,"Soil_moisture":86,"Ambient...	json	a few seconds ago
status	{"Temperature":59,"Soil_moisture":14,"Ambient...	json	a few seconds ago
status	{"Temperature":8,"Soil_moisture":73,"Ambient_...	json	a few seconds ago

NODE-RED DEBUG OUTPUT:



The screenshot shows the Node-RED Debug Console interface. At the top, there's a header with the word "debug" and several icons. Below the header, there's a filter dropdown set to "all nodes" and a "clear" button. The main area displays a list of messages. Each message entry includes a timestamp, a node ID, and the message details. The messages show a sequence of data being sent from a node, starting with a full JSON object and then individual values.

```
11/18/2022, 12:33:52 AM node: f2f2649a.0d0d98
iot-2/type/Node/id/esp2/evt/status/fmt/json :
msg.payload : Object
  { Temperature: 44, Soil_moisture: 79, Ambient_Light_LDR: 914, Rain_sensor: 328, pH_sensor: 6 }

11/18/2022, 12:33:52 AM node: f2f2649a.0d0d98
iot-2/type/Node/id/esp2/evt/status/fmt/json :
msg.payload : number
44

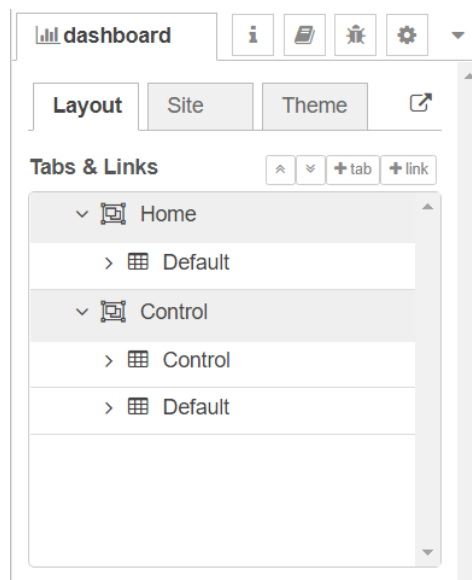
11/18/2022, 12:33:52 AM node: f2f2649a.0d0d98
iot-2/type/Node/id/esp2/evt/status/fmt/json :
msg.payload : number
79

11/18/2022, 12:33:52 AM node: f2f2649a.0d0d98
iot-2/type/Node/id/esp2/evt/status/fmt/json :
msg.payload : number
914

11/18/2022, 12:33:52 AM node: f2f2649a.0d0d98
iot-2/type/Node/id/esp2/evt/status/fmt/json :
msg.payload : number
328

11/18/2022, 12:33:52 AM node: f2f2649a.0d0d98
iot-2/type/Node/id/esp2/evt/status/fmt/json :
msg.payload : number
6
```

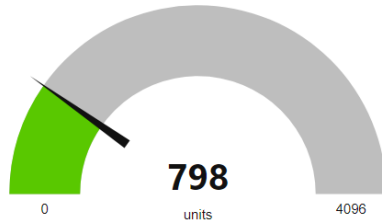
NODE-RED DASHBOARD UI:



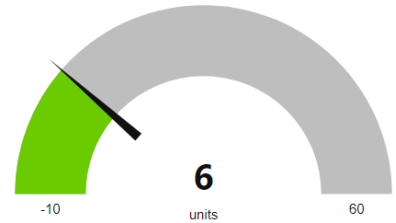
The screenshot shows the Node-RED Dashboard UI. At the top, there's a header with the word "dashboard" and several icons. Below the header, there's a navigation bar with tabs for "Layout", "Site", and "Theme". The "Layout" tab is currently selected. Below the navigation bar, there's a section titled "Tabs & Links" with a dropdown menu. The dropdown menu shows a list of tabs: "Home", "Control", and "Default". The "Home" tab is currently selected.

Home

Rain sensor



Temperature



Soil moisture



LDR 191

pH 6

Control

Control

MOTOR ON

MOTOR OFF

```
{"Temperature":44,"Soil_moisture":79,"Rain_sensor":328,"pH_sensor":6,"Ambient_Light_LDR":914}
```

```
{"command":"Motor_off"}
```