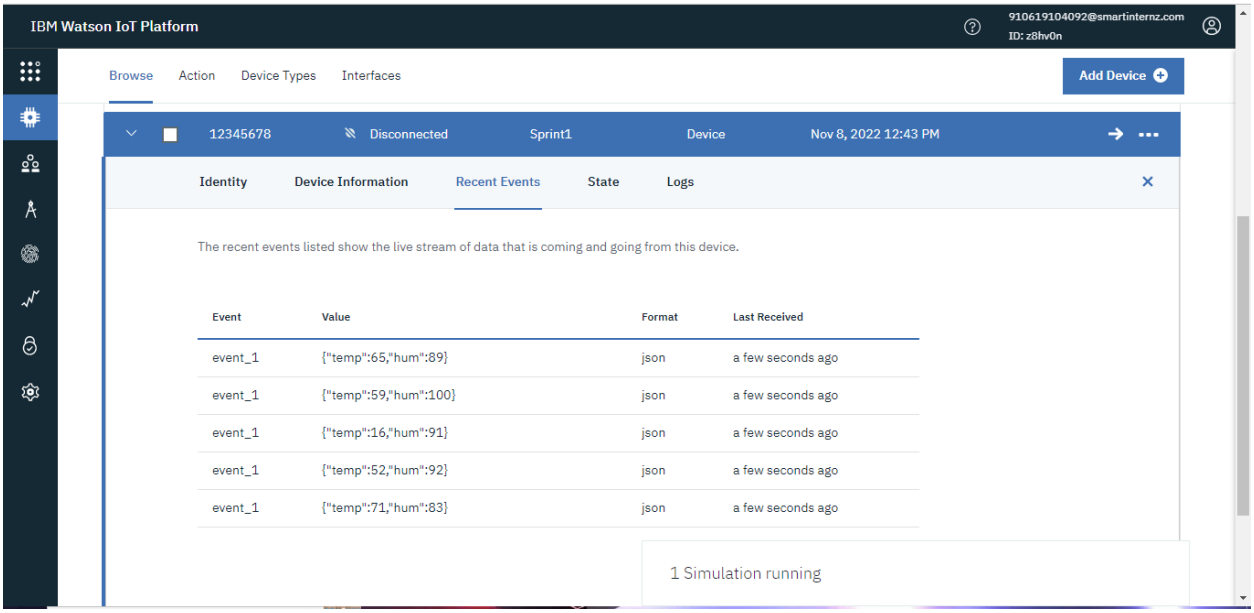
Build A Web Application Using Node-RED Service

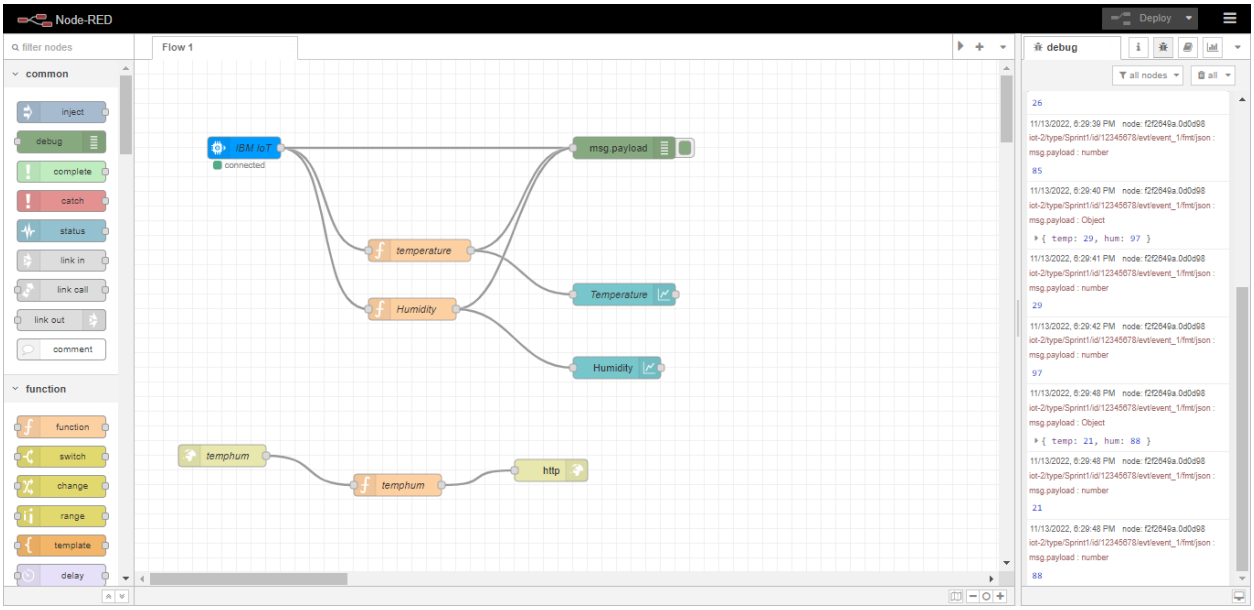
Team ID	PNT2022TMID11377
Project Name	Smart Farmer-IOT Enabled Smart Farming Application

1.WEATHER STATION:

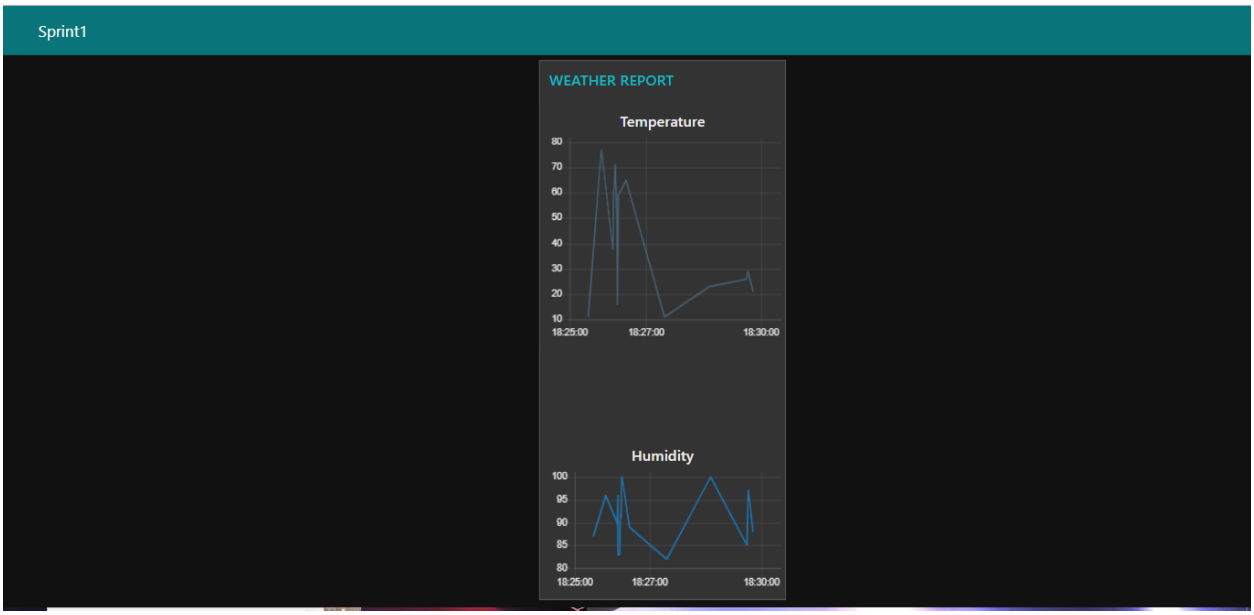
Create the device in IBM Watson which produces the temperature and humidity and start simulation.



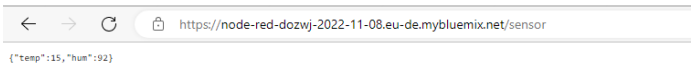
Create the Node red flow, where the IBM iot device node is connected to the function nodes which it performs the temperature and humidity functions further it was connected to front end nodes in Node red.



Here, the weather report contains the temperature and humidity are monitored using graph format.

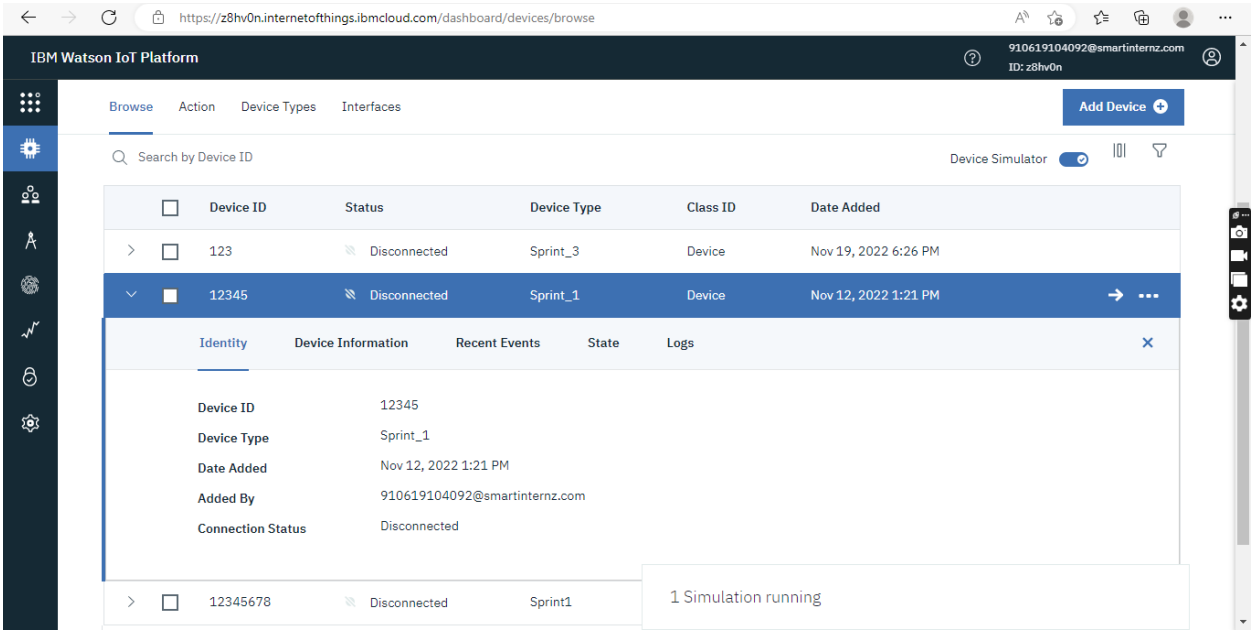


Temperature and humidity values are obtained in a web page using the http in node and http response node.

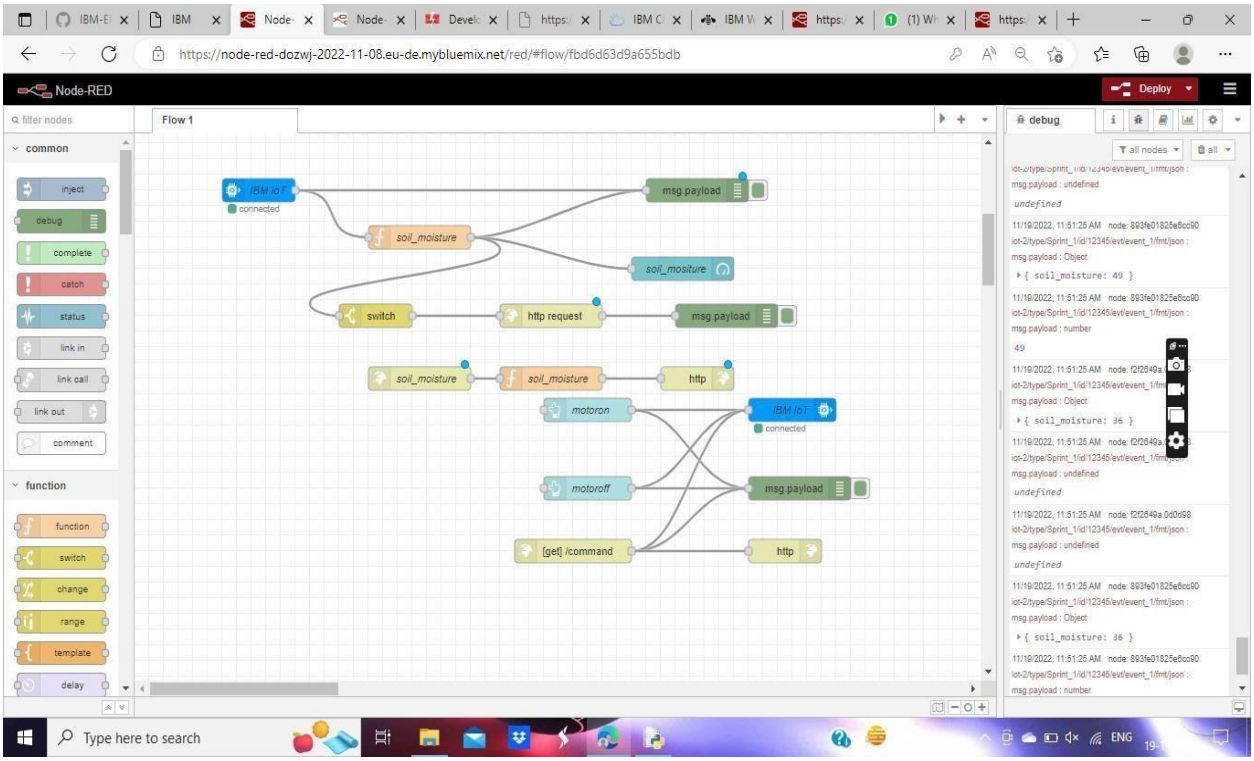


2.FIELD MONITORING:

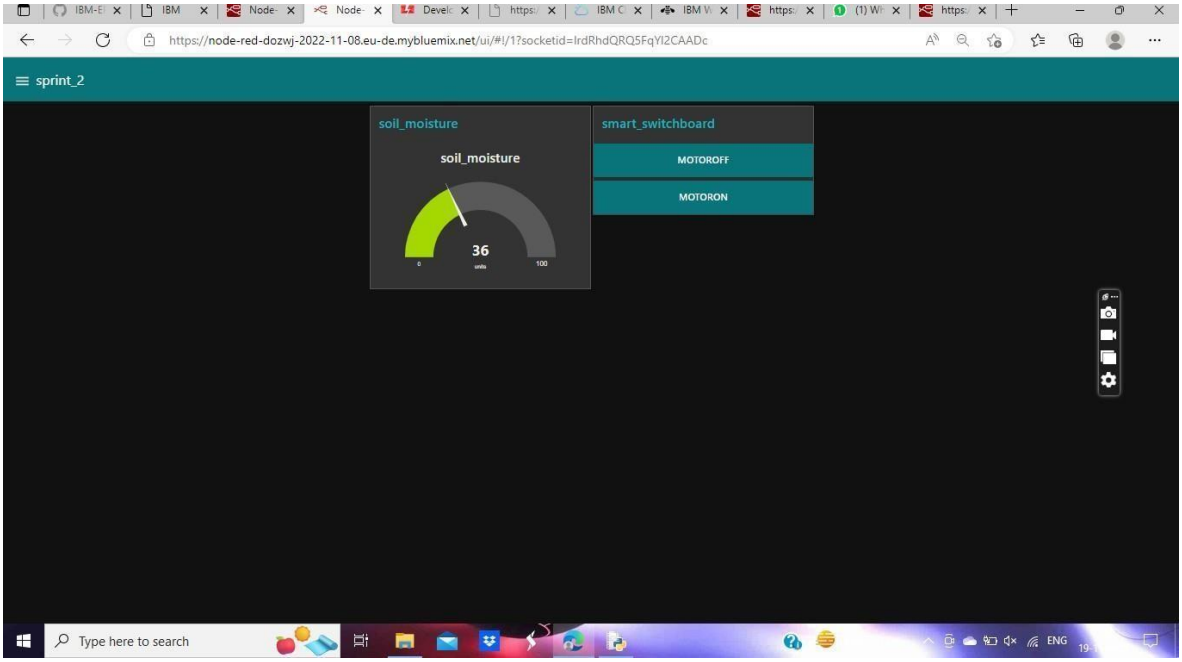
Create the device in IBM Watson which produces the soil moisture value and start simulation.



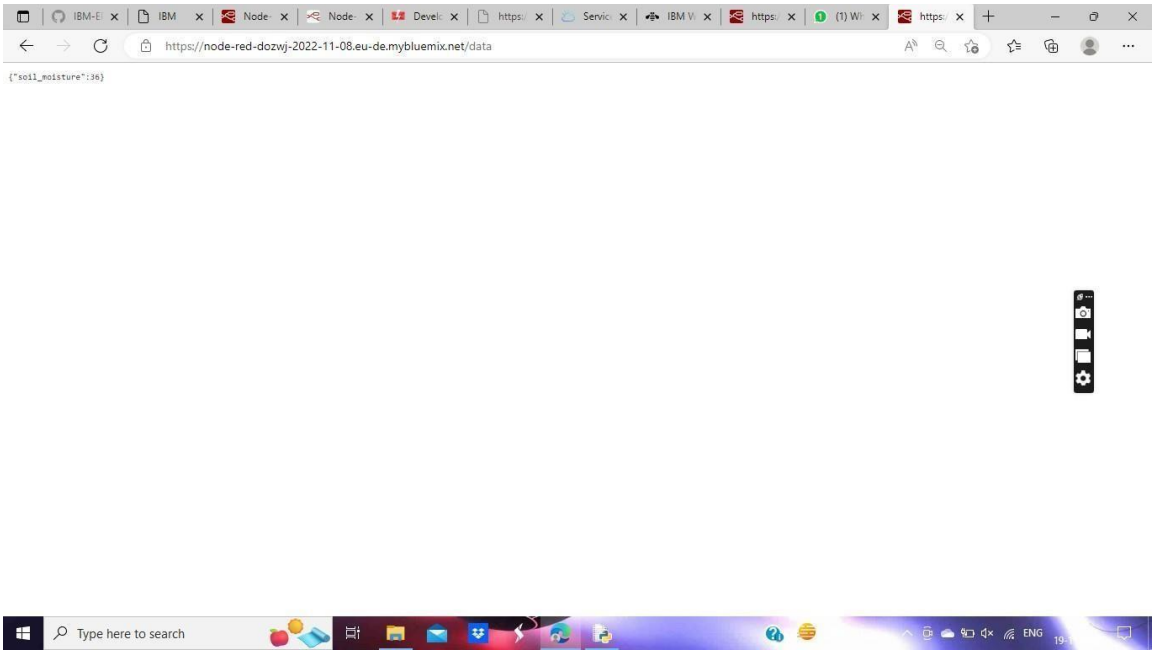
Node red flow is created if the soil moisture value is less than 20 it should on the motor and if the moisture level is adequate, it turns off the motor. The two buttons are created to switch on and off the motor manually by the end user. So, user can control and monitor the real time field irrigation system.



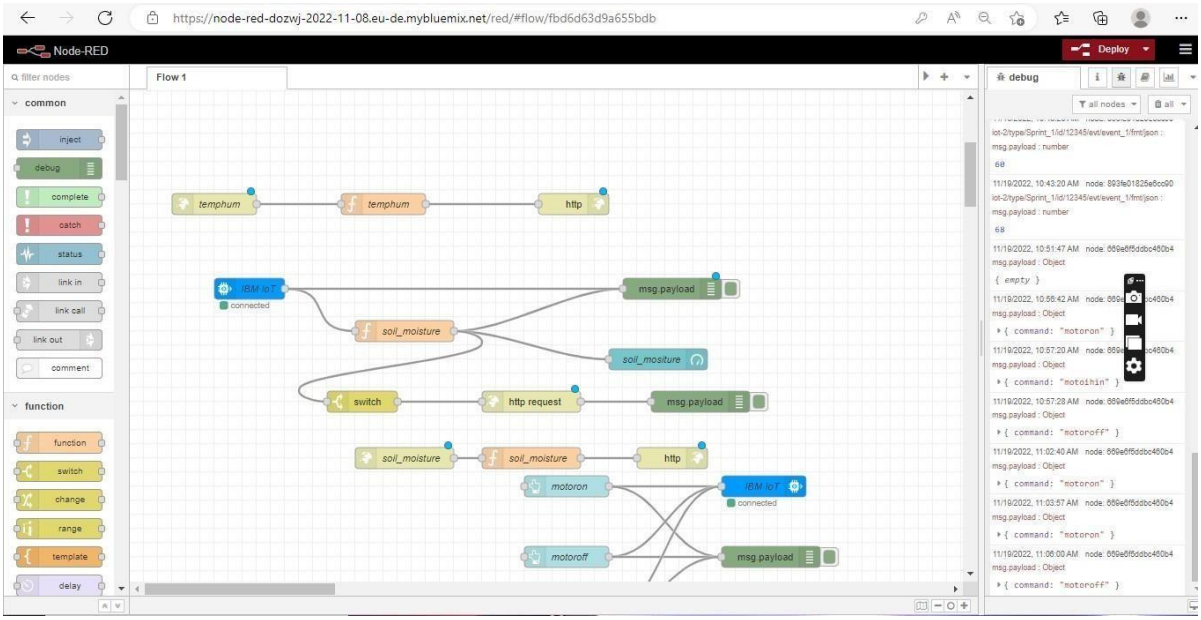
Soil moisture and motor control buttons are displayed in the Node red dashboard.



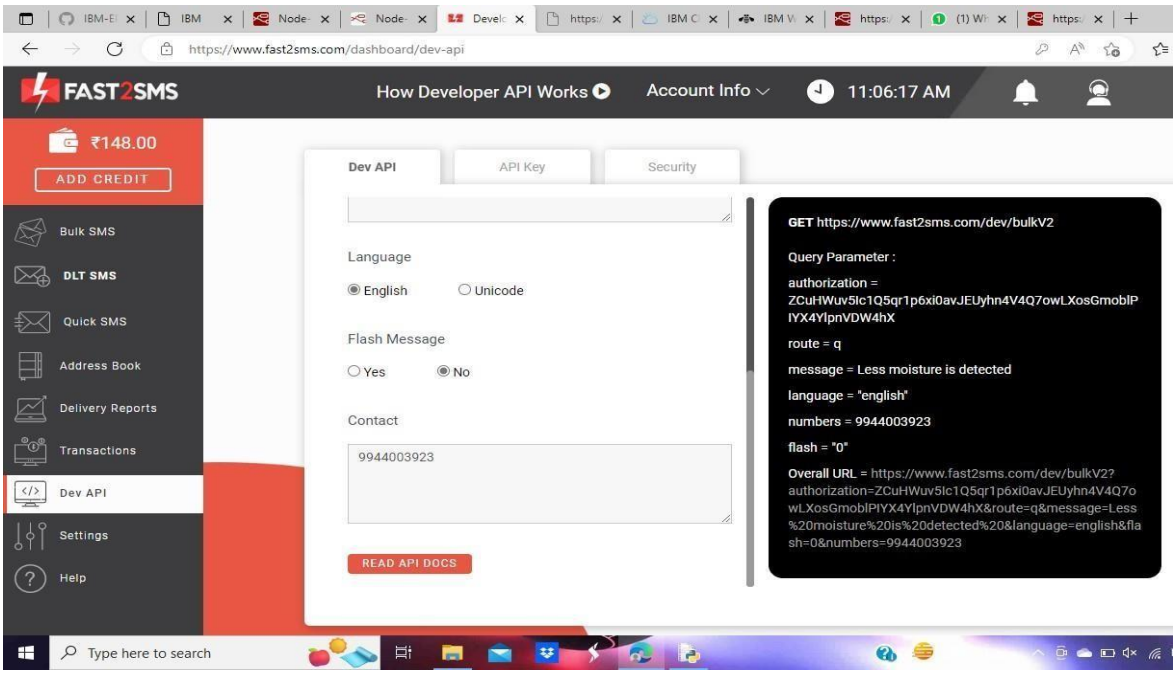
Soil moisture value is obtained in a web page using the http in node and http response node.



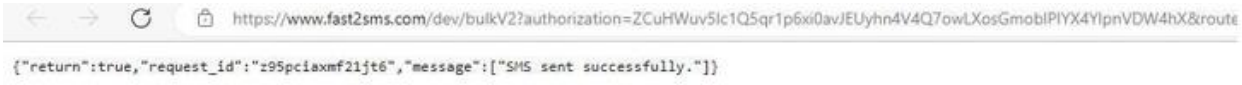
Motor on and off command is displayed in the node red .



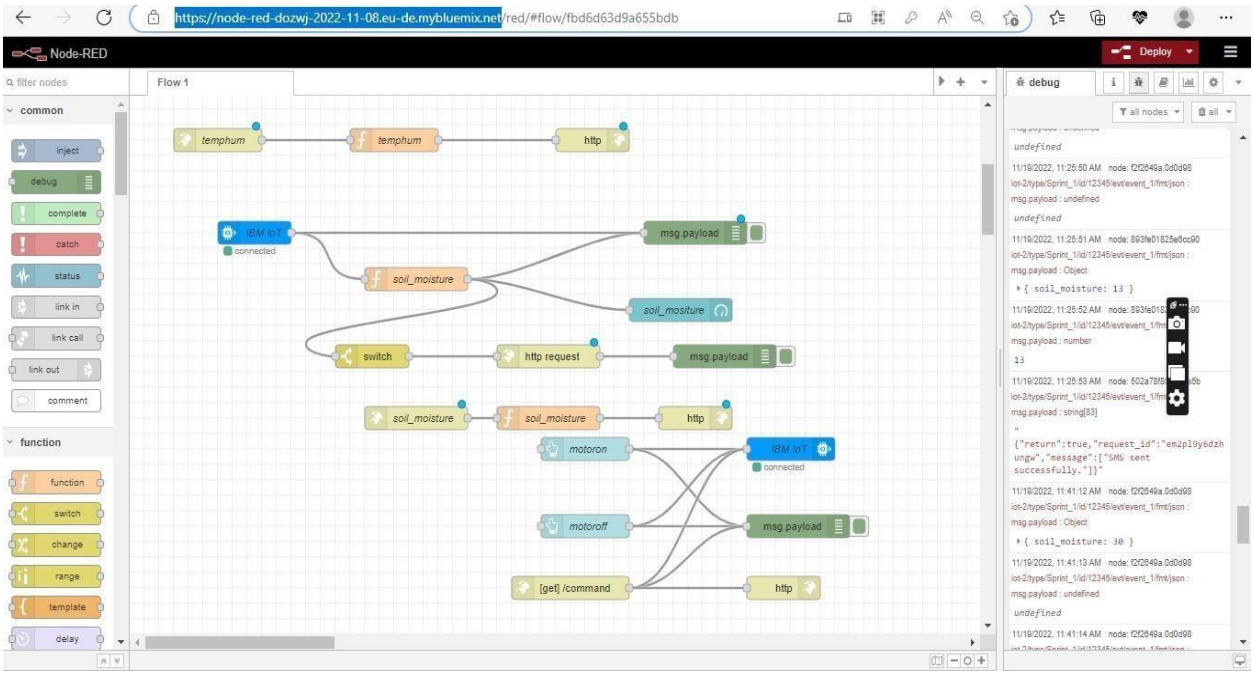
Sending the notification via mobile number, If the moisture level is detected below 20 thenthe notification is sent to the user like less moisture is detected.



Here, the moisture is detected as 13 so it's less than 20 automatically the message is sent to the user and we get successfully message sent in the node red.

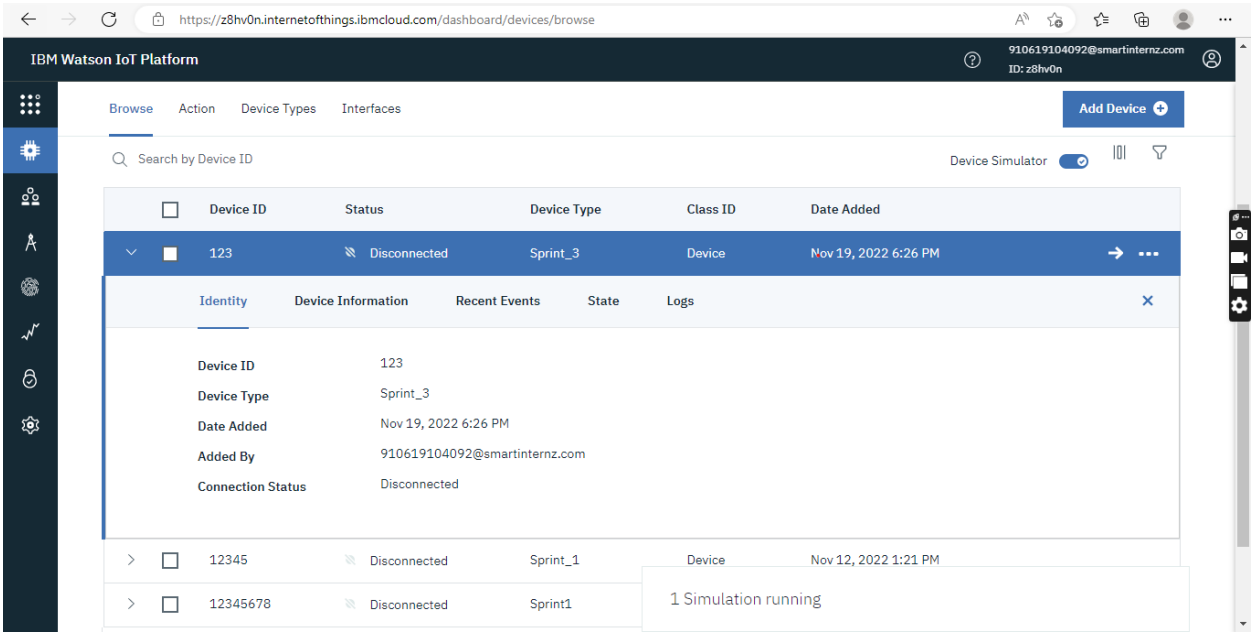


Message send to user was notified in the node red flow.

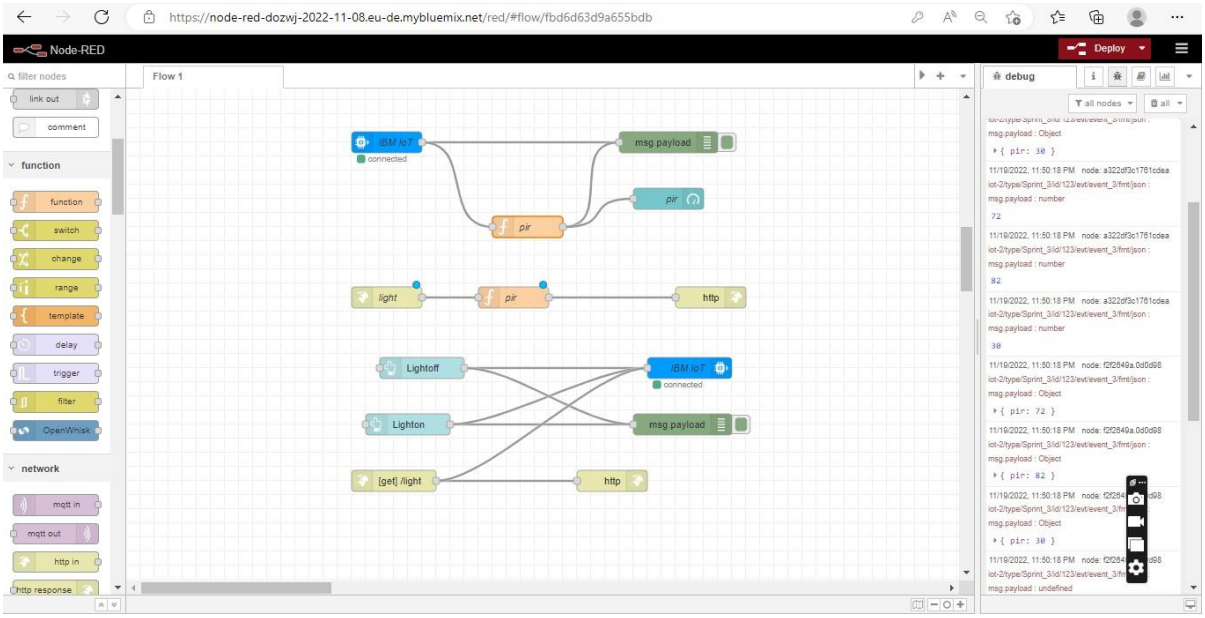


3. FENCING:

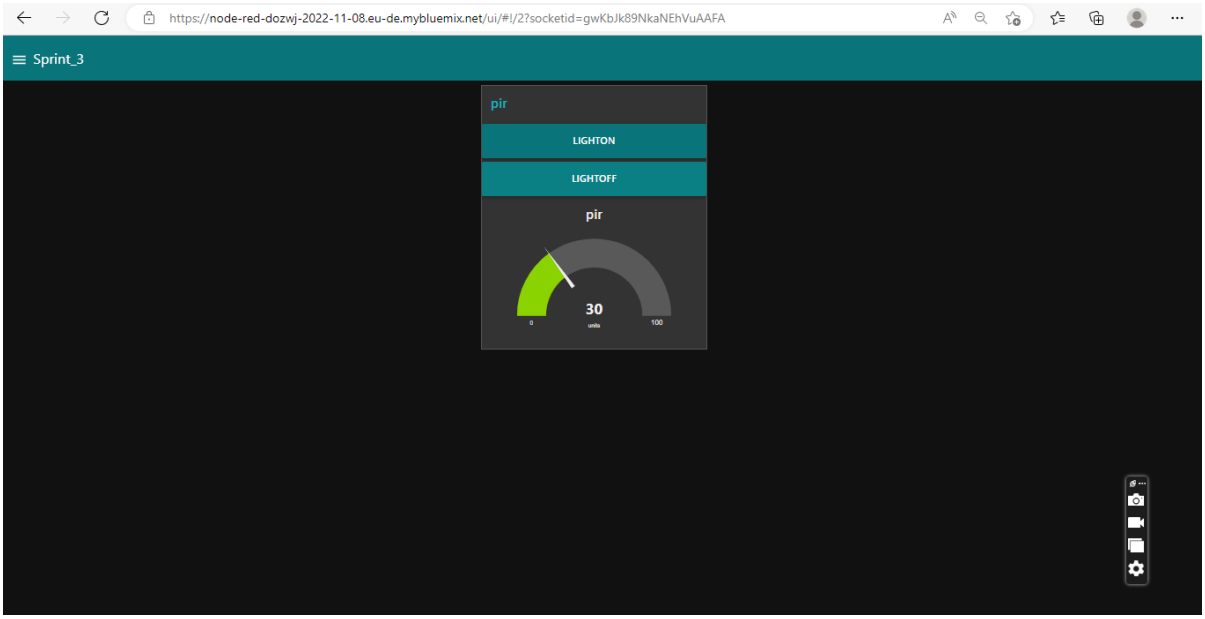
Create the device in IBM Watson which detects the distance value and start simulation.



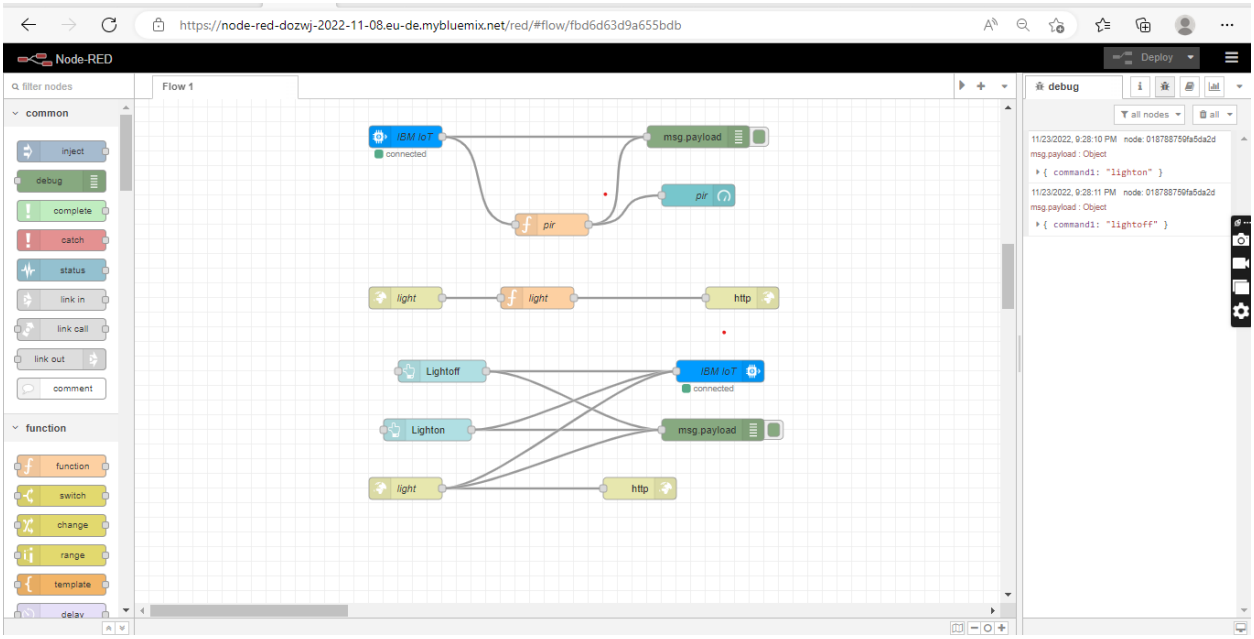
Node red flow is created that the distance between the object is detected, and the value is send to the user interface further the two buttons are created where the led can be on and off its controlled by the user and they can monitor the current situation.



Distance and light control buttons are displayed in the Node red dashboard.

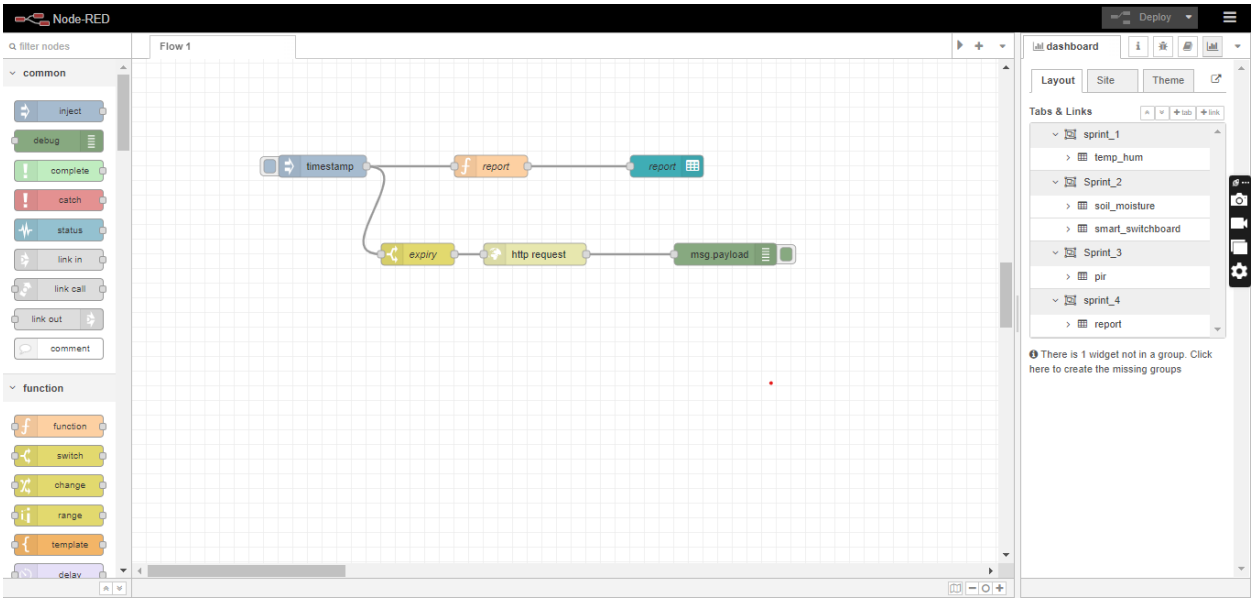


Here the light on and light off message is displayed in node red which is controlled by the user.



WAREHOUSE MANAGEMENT:

The data base is created in the node red.



Here use should enter current date, crop name, crop condition and expiry date.