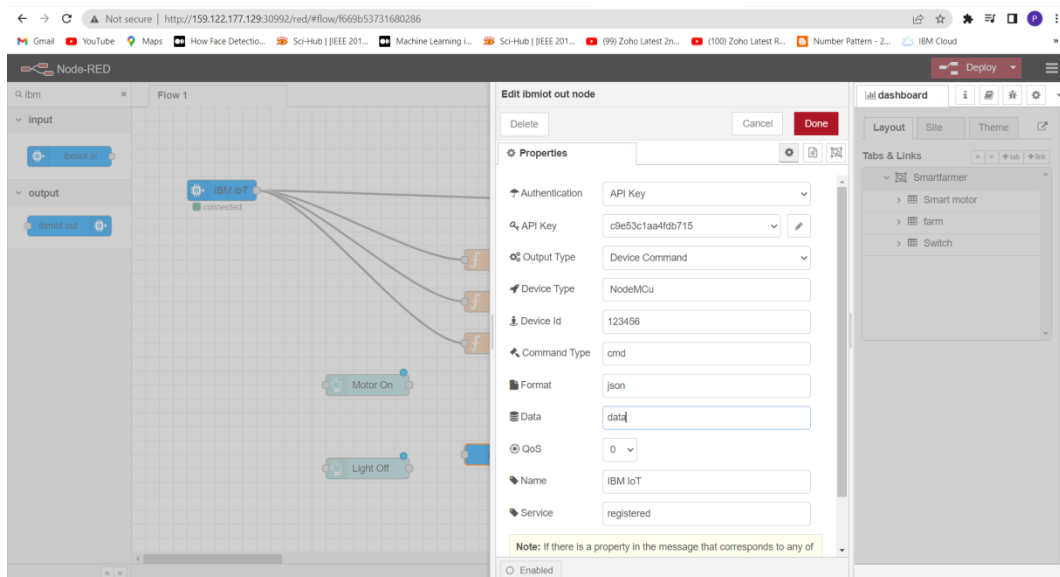


Project Delivery Sprint 3

Date	17 Nov 2022
Team ID	PNT2022TMID04699
Project Name	Smart Farmer - IoT Enabled Smart Farming Application

Configuration of Node-Red to send commands to IBM cloud

- ibmiot out node I used to send data from Node-Red to IBM Watson device. So, after adding it to the flow we need to configure it with credentials of our Watson device.
- Here we add two buttons in UI
- Edit the properties of ibmiot out node



- Edit the properties of Motor ON Button node

The screenshot shows the 'Edit button node' dialog box. At the top, there are buttons for 'Delete', 'Cancel', and 'Done'. Below these is a 'Properties' tab with a settings icon, a document icon, and a preview icon. The properties are as follows:

- Group:** [Smartfarmer] Switch board (with a dropdown arrow and an edit icon)
- Size:** auto
- Icon:** optional icon
- Label:** motor on
- Tooltip:** optional tooltip
- Color:** optional text/icon color
- Background:** optional background color
- When clicked, send:** (checked)
 - Payload:** {} {"command":"motoron"} (with a dropdown arrow and a more options icon)
 - Topic:** msg. topic
- If msg arrives on input, emulate a button click:** ☐
- Class:** Optional CSS class name(s) for widget

At the bottom, there is an 'Enabled' checkbox which is currently unchecked.

- Edit the properties of Motor OFF Button node

The screenshot shows the 'Edit button node' dialog box. At the top, there are buttons for 'Delete', 'Cancel', and 'Done'. Below these is a 'Properties' tab with a settings icon, a document icon, and a preview icon. The properties are as follows:

- Group:** [Smartfarmer] Switch board (with a dropdown arrow and an edit icon)
- Size:** auto
- Icon:** optional icon
- Label:** motor off
- Tooltip:** optional tooltip
- Color:** optional text/icon color
- Background:** optional background color
- When clicked, send:** (checked)
 - Payload:** {} {"command":"motoroff"} (with a dropdown arrow and a more options icon)
 - Topic:** msg. topic
- If msg arrives on input, emulate a button click:** ☐
- Class:** Optional CSS class name(s) for widget

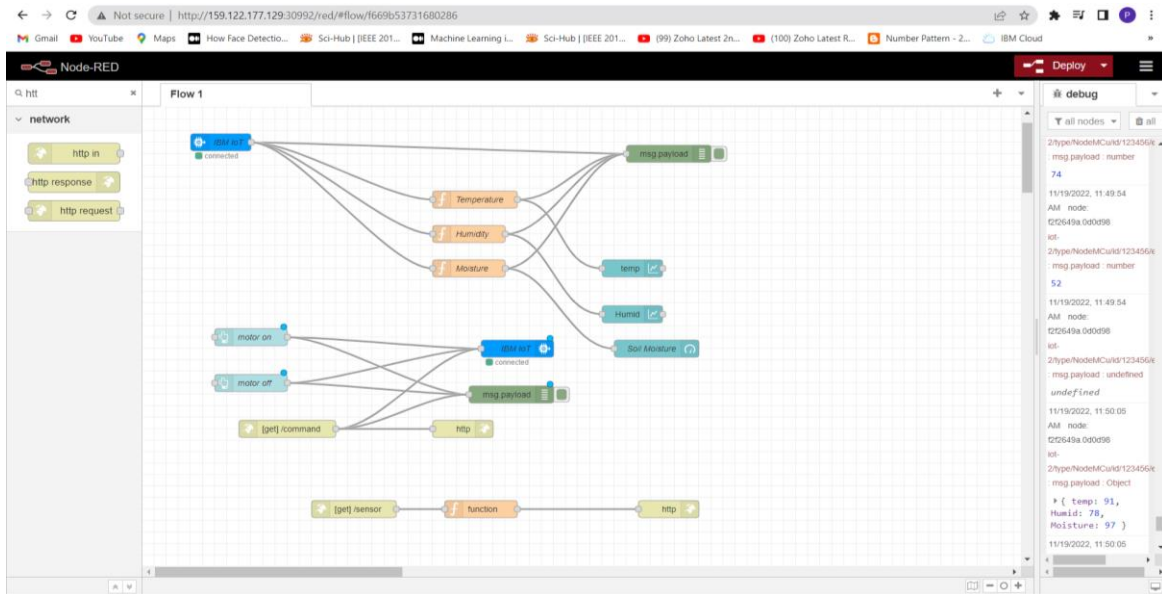
At the bottom, there is an 'Enabled' checkbox which is currently unchecked.

- This is the program flow for sending commands to IBM cloud

Configuration of Node – Red with FAST2SMS :

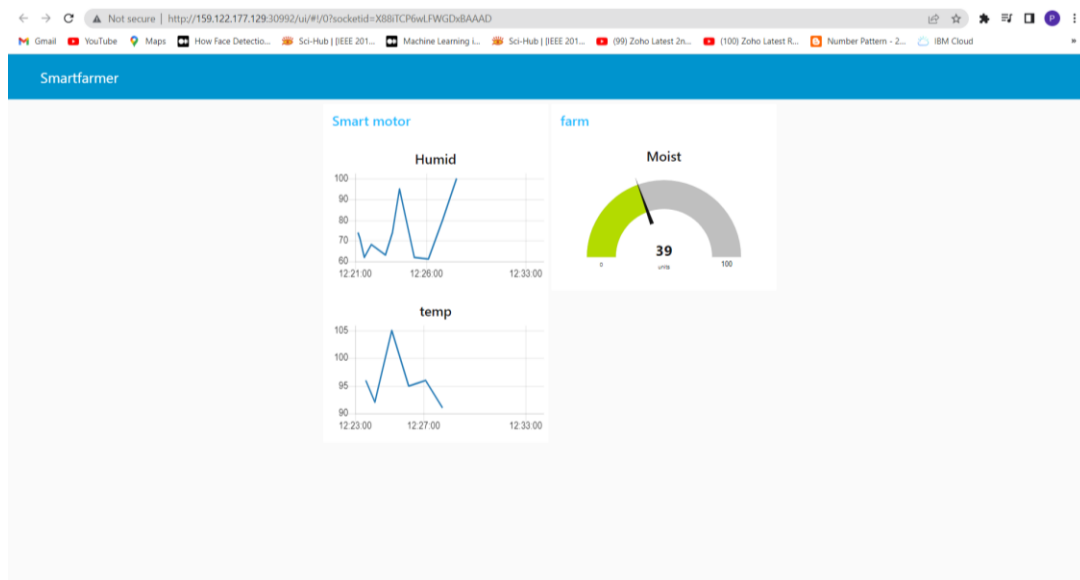
- Edit the properties of FAST2SMS Switch node
 - If Soil Moisture is Less than 50, it will send the message to the particular number.

Node – Red Complete Program Flow:



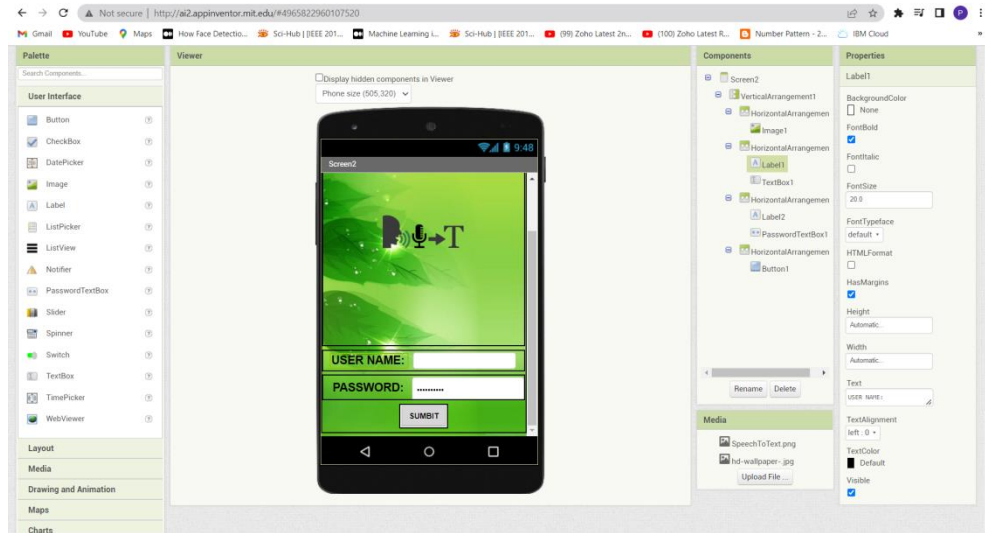
Node – Red Dashboard (WEB APP UI):

- In order to display the parsed JSON data a Node-Red dashboard is created.
- Below images are the Gauge, text and button node configuration

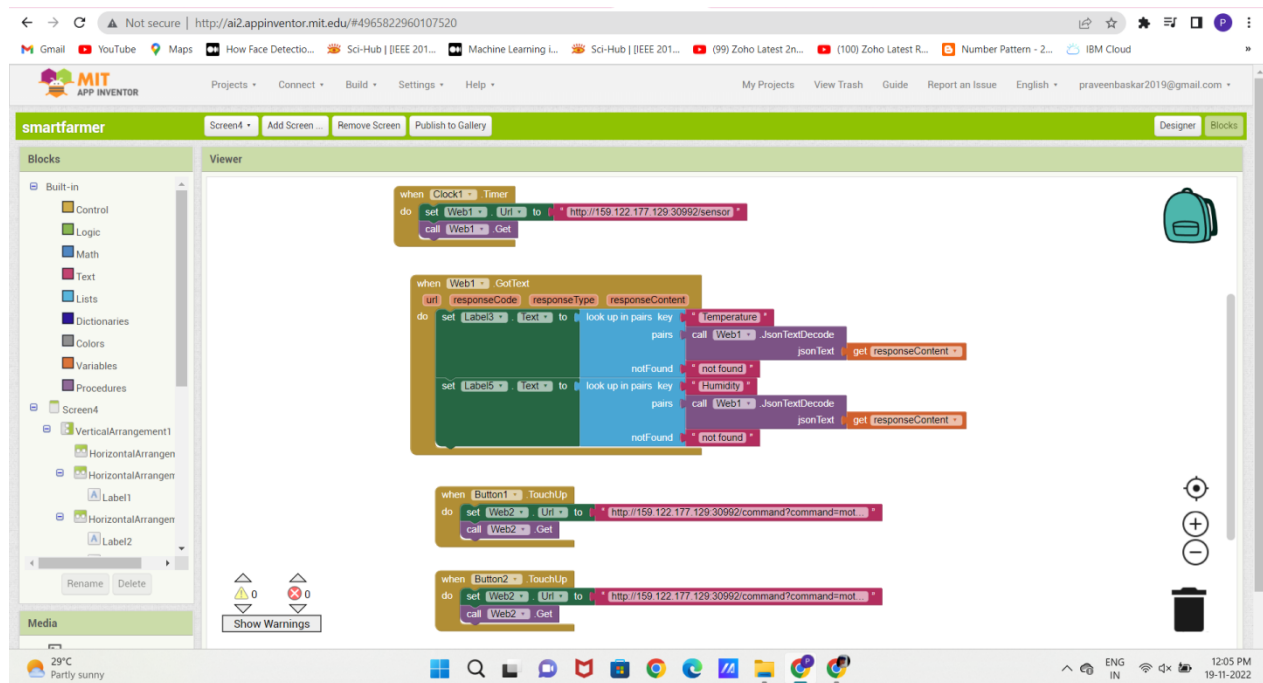


MOBILE APP :

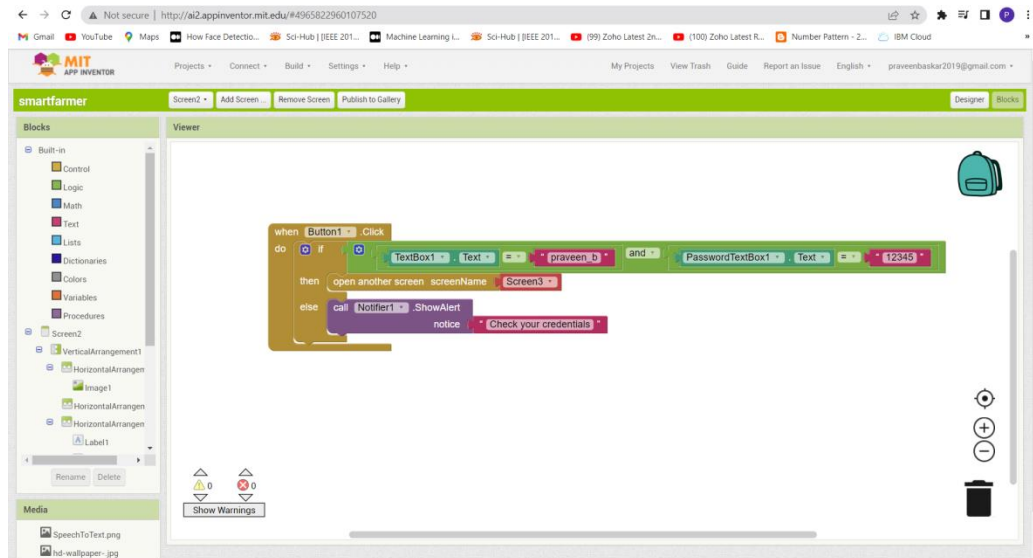
- MIT APP INVENTOR
 - Designer part



- Blocks Part



○ Button function Blocks



○ Mobile App

