

Project Outputs

Date	November 14, 2022
Team ID	PNT2022TMID33206
Project name	Project:IOT Based Smart Crop Protection System For Agriculture
Maximum Marks	4 Marks



IBM Watson IoT platform:

Random temperature, humidity, and moisture values are generated using the python code and the values are sent to the IBM cloud. IBM cloud

sends those values to the node red and shown in the node red dashboard.

The screenshot displays the IBM Watson IoT Platform dashboard. The main content area shows a table of recent events for a device. The table has four columns: Event, Value, Format, and Last Received. There are five rows of data, each representing a temperature and humidity reading. The events are labeled 'event_1'. The values are JSON objects containing temperature and humidity data. The format is 'json' and the last received time is 'a few seconds ago'. The dashboard also includes a sidebar with navigation icons and a top bar with user information and an 'Add Device' button. A status bar at the bottom indicates '1 Simulation running'.

Event	Value	Format	Last Received
event_1	{"Temperature":77,"Humidity":41}	json	a few seconds ago
event_1	{"Temperature":47,"Humidity":41}	json	a few seconds ago
event_1	{"Temperature":32,"Humidity":98}	json	a few seconds ago
event_1	{"Temperature":55,"Humidity":47}	json	a few seconds ago
event_1	{"Temperature":63,"Humidity":39}	json	a few seconds ago

► Python code testing:

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help

... ..publish ok... ..
Published Temp = 32.94 C to IBM Watson
Published PH value = 5.134 to IBM Watson
Published Animal attack Not Detected to IBM Watson
Published Flame Detected to IBM Watson
Published Moisture level = 95.19 to IBM Watson
Published Water level = 11.94 cm to IBM Watson

Published Alert1 : Temperature(32.94) is high, sprinklers are turned ON to IBM Watson
Published Alert2 : Fertilizer PH level(5.134) is not safe,use other fertilizer to IBM Watson
Published Alert3 : Animal attack on crops detected to IBM Watson to IBM Watson

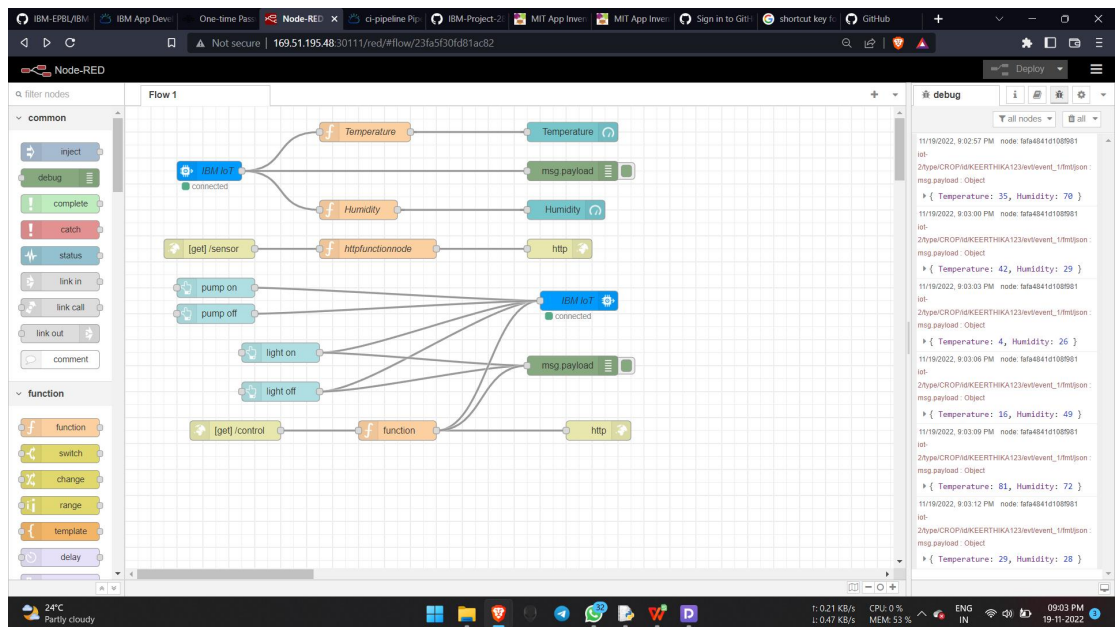
sprinkler-2 is ON
Published Alert4 : Flame is detected crops are in danger,sprinklers turned ON to IBM Watson
Published Alert5 : Moisture level(95.19) is low, Irrigation started to IBM Watson
Published Alert6 : water level(11.94) is high, so motor is ON to take water out to IBM Watson

... ..publish ok... ..
Published Temp = 60.52 C to IBM Watson
Published PH value = 6.619 to IBM Watson
Published Animal attack Not Detected to IBM Watson
Published Flame Not Detected to IBM Watson
Published Moisture level = 91.51 to IBM Watson
Published Water level = 4.95 cm to IBM Watson

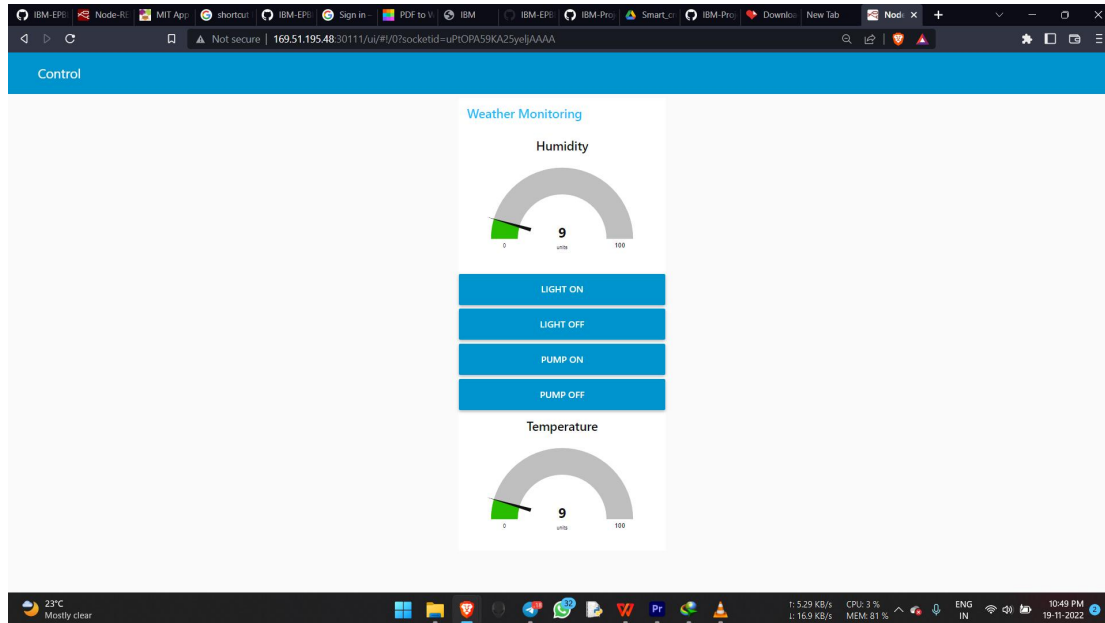
sprinkler-1 is ON
Published Alert1 : Temperature(60.52) is high, sprinklers are turned ON to IBM Watson
Published Alert2 : Fertilizer PH level(6.619) is not safe,use other fertilizer to IBM Watson
Published Alert3 : Animal attack on crops detected to IBM Watson to IBM Watson
Published Alert4 : Flame is detected crops are in danger,sprinklers turned ON to IBM Watson
Published Alert5 : Moisture level(91.51) is low, Irrigation started to IBM Watson
Published Alert6 : water level(4.95) is high, so motor is ON to take water out to IBM Watson

... ..publish ok... ..
Published Temp = 72.51 C to IBM Watson
Published PH value = 13.042 to IBM Watson
Published Animal attack Not Detected to IBM Watson
```

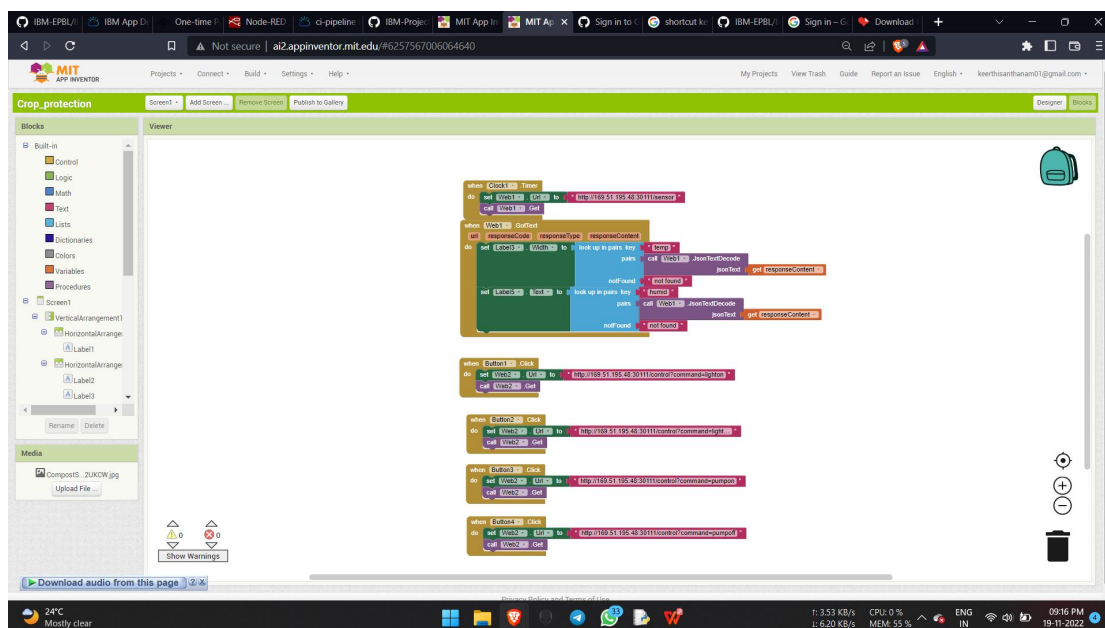
► Node-red testing: *Connection and output:*



Web application testing:



Mobile Application testing: Mobile application creation :



Mobile Application:

App interface:

