

SPRINT-4

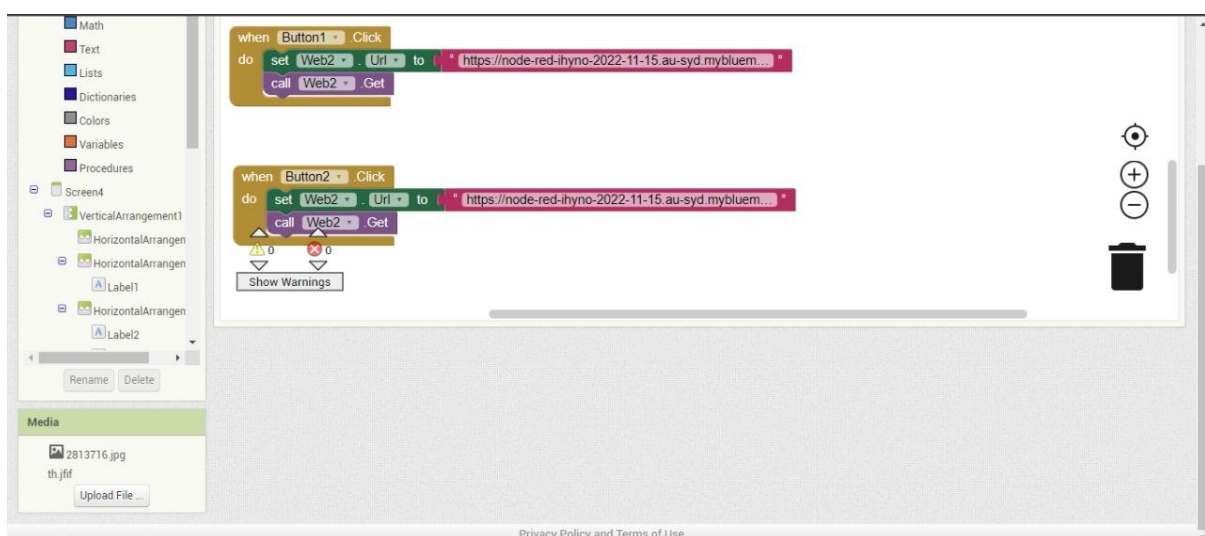
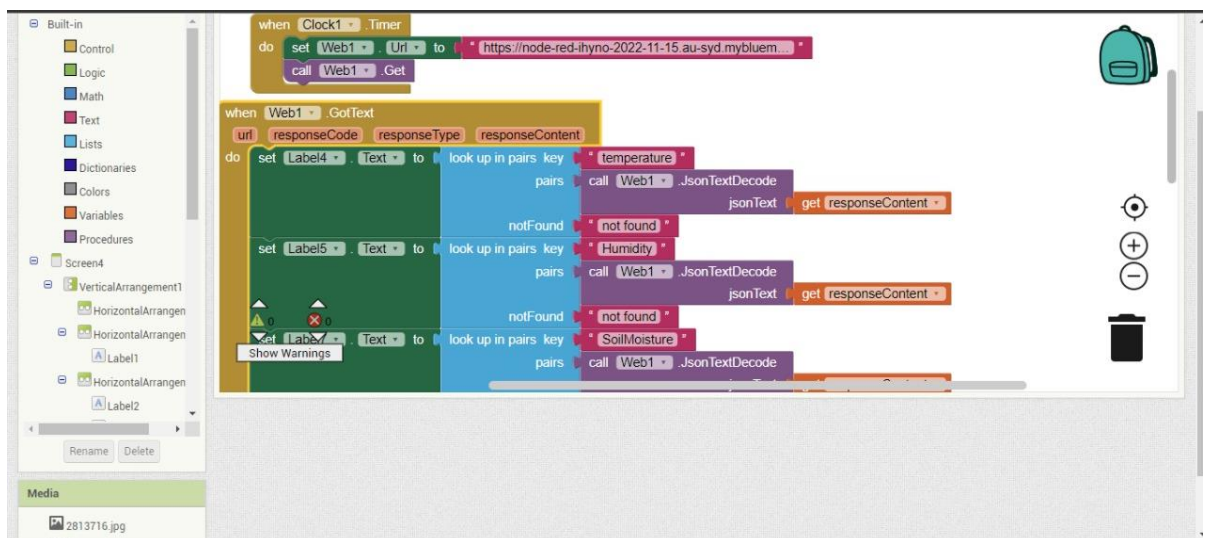
DATE	16-11-2022
TEAM ID	PNT2022TMID18361
PROJECT NAME	Project – Smart Farmer-IoT Enabled smart Farming Application

In the sprint fourth phase, the MIT app inventor is used to create an app i.e., to create a user-friendly interface for the farmers to on or off the motor when the temperature sensor reaches the threshold value.

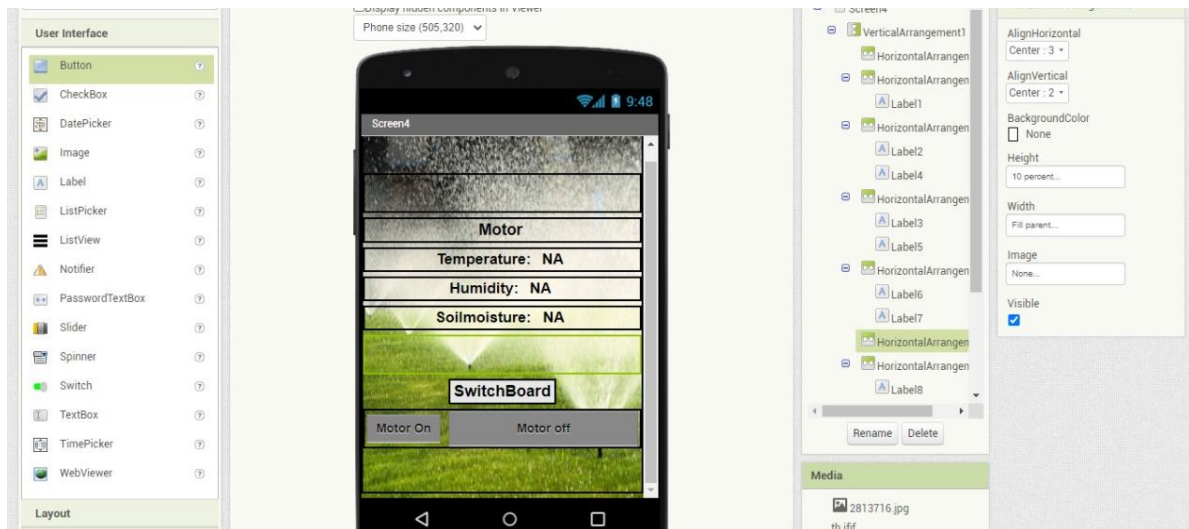
After creating all the essential blocks on the MIT app inventor , the QR code will be scanned and the app can be used.

The app is created by dragging and placing the required blocks in the MIT app inventor. The changes are made according to our requirements.

DESIGNING THE APP IN THE MIT APP INVENTOR:



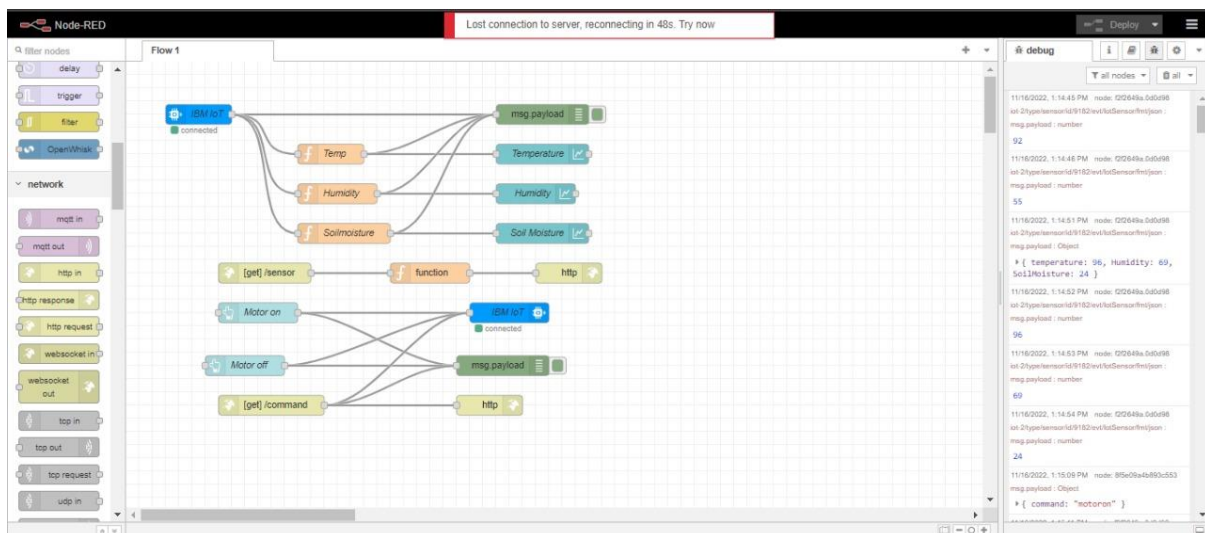
MAIN SCREEN OF THE APP:



After all the connections are made, the final outputs are given as below:

The nodered flow diagram is modified when the device is connected to the web.

NODERED FLOW DIAGRAM AFTER CONNECTED TO THE WEB:

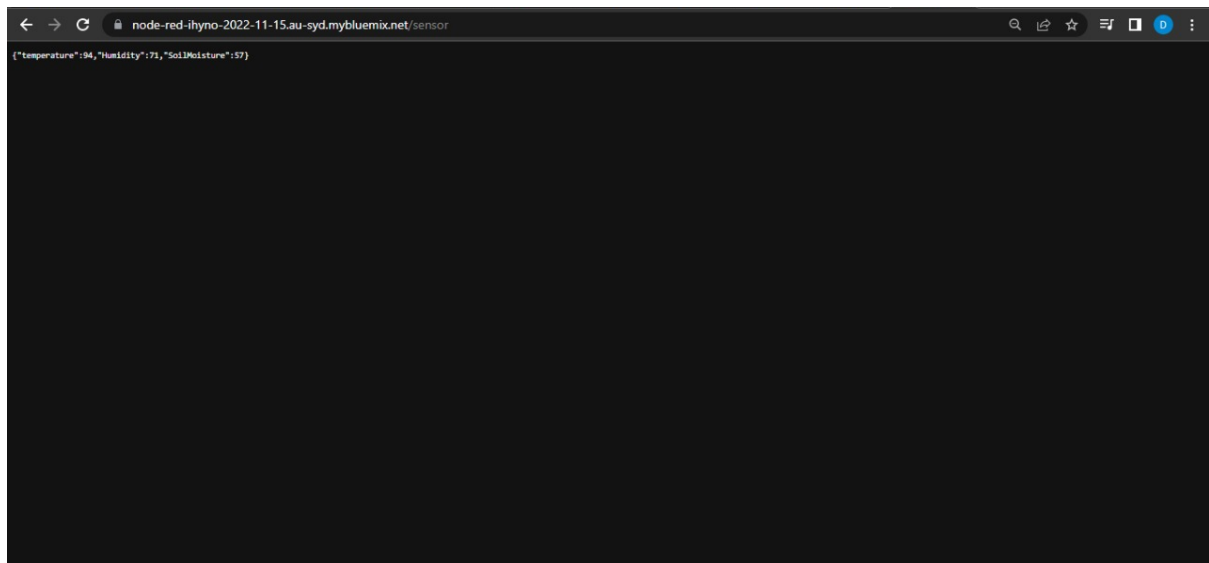


The python code is simulated. When the command Motor on is given on the nodered dashboard , then the python code will show the output as command received.

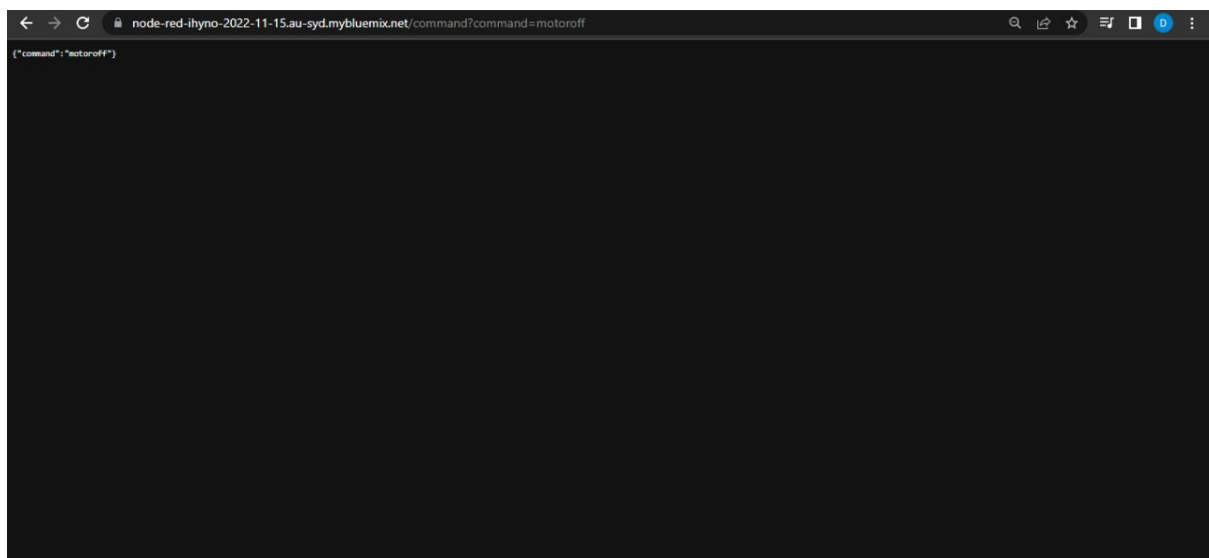
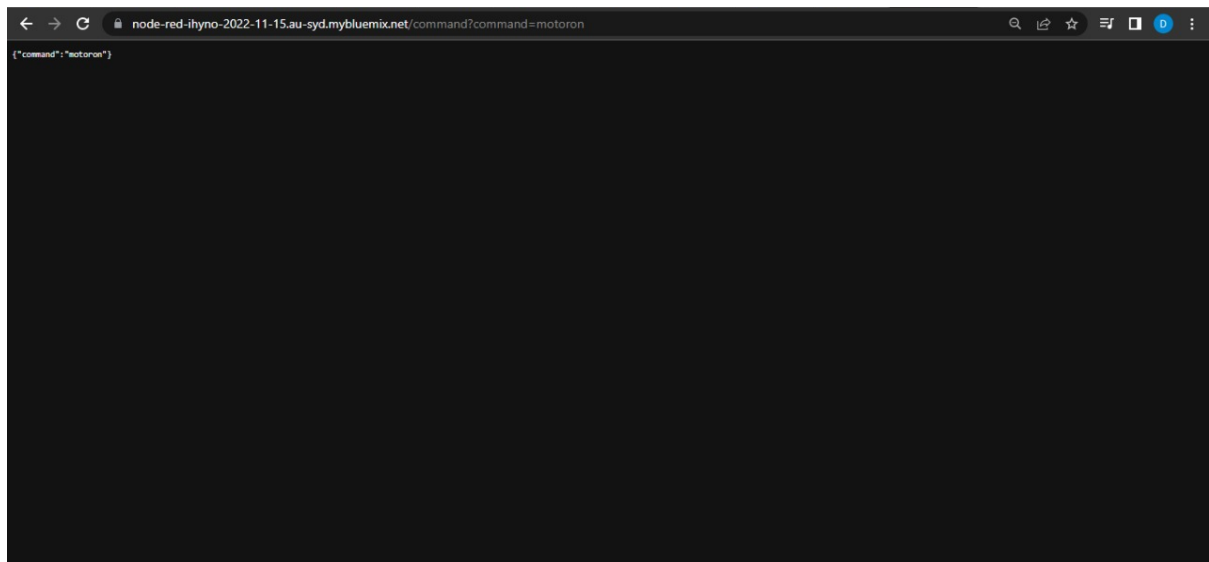
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Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Published Temperature = 101 C Humidity = 73 % Soil Moisture = 45 % to IBM Watson
Published Temperature = 99 C Humidity = 97 % Soil Moisture = 47 % to IBM Watson
Published Temperature = 102 C Humidity = 89 % Soil Moisture = 52 % to IBM Watson
Published Temperature = 102 C Humidity = 93 % Soil Moisture = 32 % to IBM Watson
Published Temperature = 92 C Humidity = 100 % Soil Moisture = 32 % to IBM Watson
Published Temperature = 94 C Humidity = 81 % Soil Moisture = 47 % to IBM Watson
Published Temperature = 104 C Humidity = 77 % Soil Moisture = 56 % to IBM Watson
Published Temperature = 97 C Humidity = 81 % Soil Moisture = 29 % to IBM Watson
Published Temperature = 100 C Humidity = 71 % Soil Moisture = 44 % to IBM Watson
Published Temperature = 101 C Humidity = 85 % Soil Moisture = 48 % to IBM Watson
Published Temperature = 102 C Humidity = 64 % Soil Moisture = 59 % to IBM Watson
Published Temperature = 102 C Humidity = 84 % Soil Moisture = 52 % to IBM Watson
Published Temperature = 100 C Humidity = 79 % Soil Moisture = 43 % to IBM Watson
Published Temperature = 91 C Humidity = 68 % Soil Moisture = 52 % to IBM Watson
Published Temperature = 107 C Humidity = 100 % Soil Moisture = 23 % to IBM Watson
Published Temperature = 92 C Humidity = 78 % Soil Moisture = 43 % to IBM Watson
Published Temperature = 103 C Humidity = 95 % Soil Moisture = 30 % to IBM Watson
Published Temperature = 92 C Humidity = 76 % Soil Moisture = 59 % to IBM Watson
Published Temperature = 98 C Humidity = 81 % Soil Moisture = 49 % to IBM Watson
Published Temperature = 100 C Humidity = 62 % Soil Moisture = 59 % to IBM Watson
Published Temperature = 103 C Humidity = 60 % Soil Moisture = 49 % to IBM Watson
Published Temperature = 107 C Humidity = 77 % Soil Moisture = 22 % to IBM Watson
Published Temperature = 91 C Humidity = 88 % Soil Moisture = 55 % to IBM Watson
Published Temperature = 91 C Humidity = 63 % Soil Moisture = 37 % to IBM Watson
Command received: motoron
Motor is on
Published Temperature = 110 C Humidity = 98 % Soil Moisture = 46 % to IBM Watson
Command received: motoroff
Motor is off
Published Temperature = 100 C Humidity = 75 % Soil Moisture = 47 % to IBM Watson
Published Temperature = 110 C Humidity = 76 % Soil Moisture = 48 % to IBM Watson
Published Temperature = 110 C Humidity = 98 % Soil Moisture = 29 % to IBM Watson
Published Temperature = 109 C Humidity = 94 % Soil Moisture = 51 % to IBM Watson
Published Temperature = 96 C Humidity = 81 % Soil Moisture = 29 % to IBM Watson
Published Temperature = 104 C Humidity = 76 % Soil Moisture = 43 % to IBM Watson
Published Temperature = 110 C Humidity = 90 % Soil Moisture = 43 % to IBM Watson
Published Temperature = 106 C Humidity = 94 % Soil Moisture = 22 % to IBM Watson
Published Temperature = 91 C Humidity = 62 % Soil Moisture = 46 % to IBM Watson
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There are two webs are created :

One for showing the temperature, Soil moisture and humidity levels according to the measurements of the sensors.



The another one for turning on and off the motor according to the command given by the farmer via the mobile app.



When the python code is simulated, the output of the python code is screened at the IBM Iot Watson platform.

