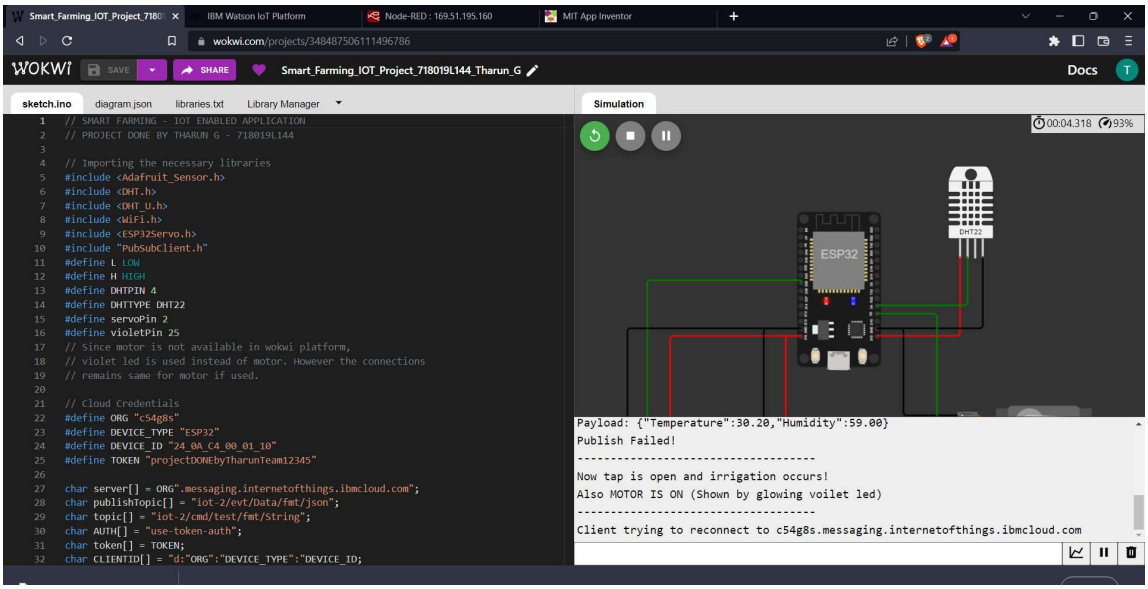
SPRINT 4

MOBILE APP DEVELOPMENT AND INTEGRATION WITH WOKWI PLATFORM THROUGH IBM CLOUD AND NODE RED

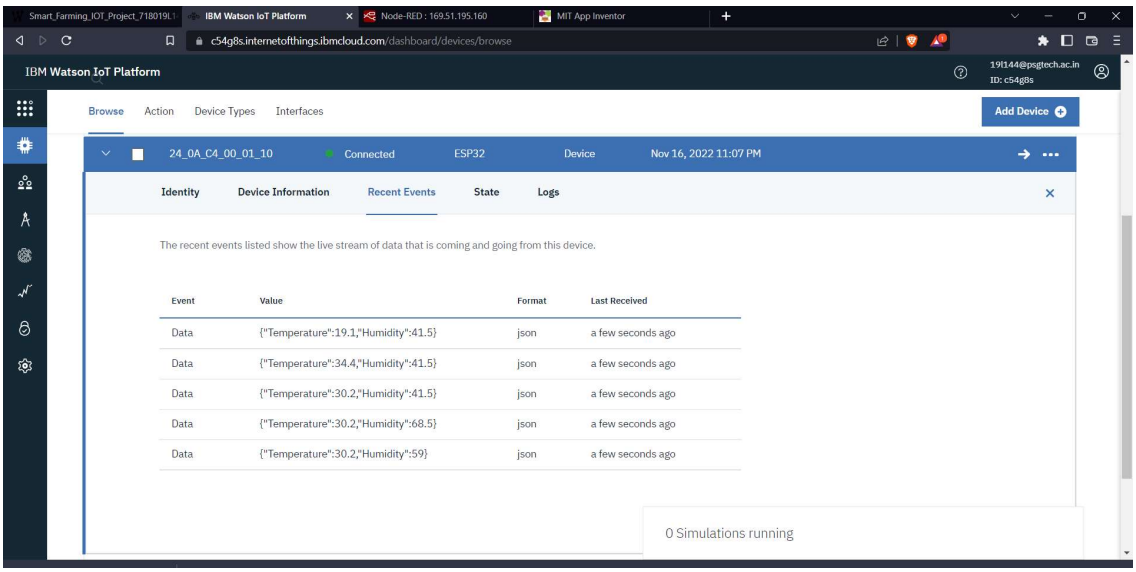
Date	11th November 2022
Team ID	PNT2022TMID12810
Project Name	SmartFarmer – IoT Enabled Farming Application
Submitted by	Tharun G

WOKWI PROJECT LINK: https://wokwi.com/projects/348487506111496786

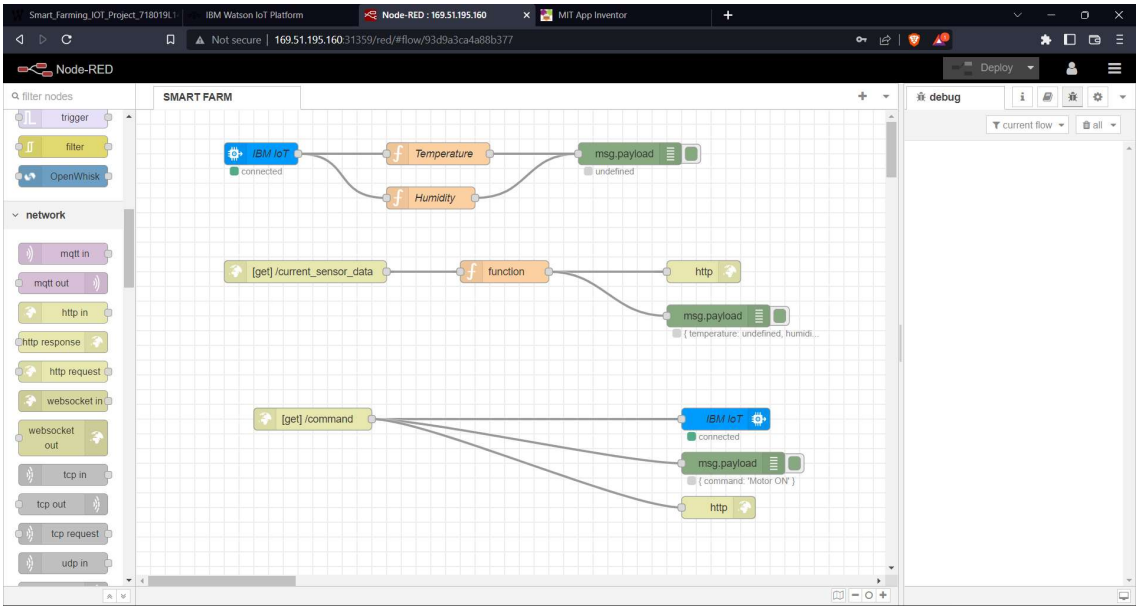
WOKWI PLATFORM (CIRCUIT DESIGN AND CODE):



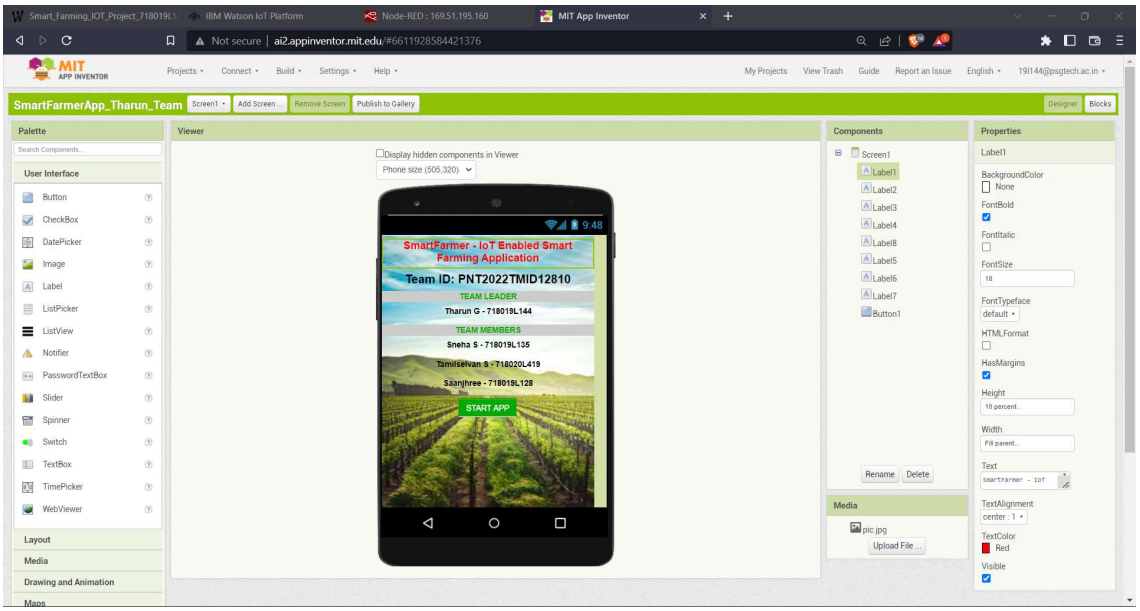
IBM CLOUD (Continuously updated with real time data from wokwi platform):

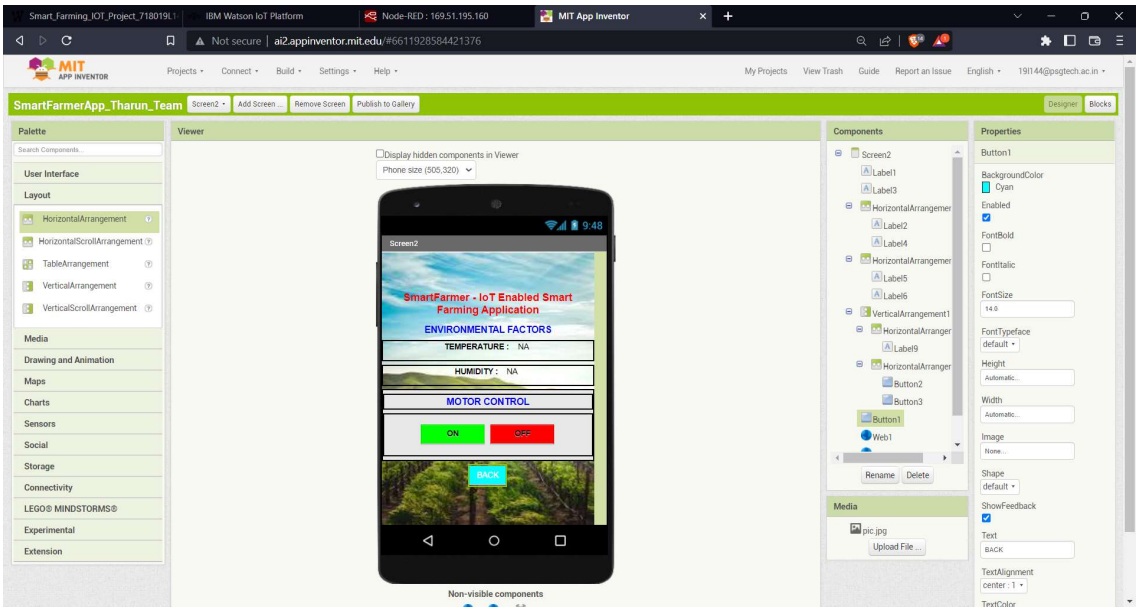


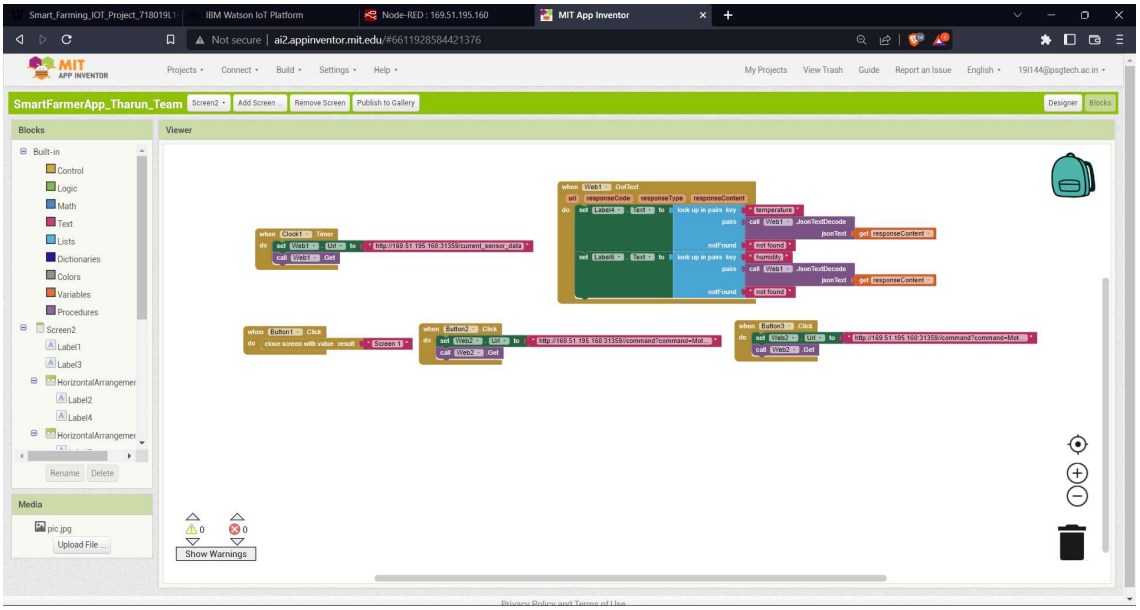
PROGRAMMING IN NODE RED FOR MOBILE APP COMMUNICATION:



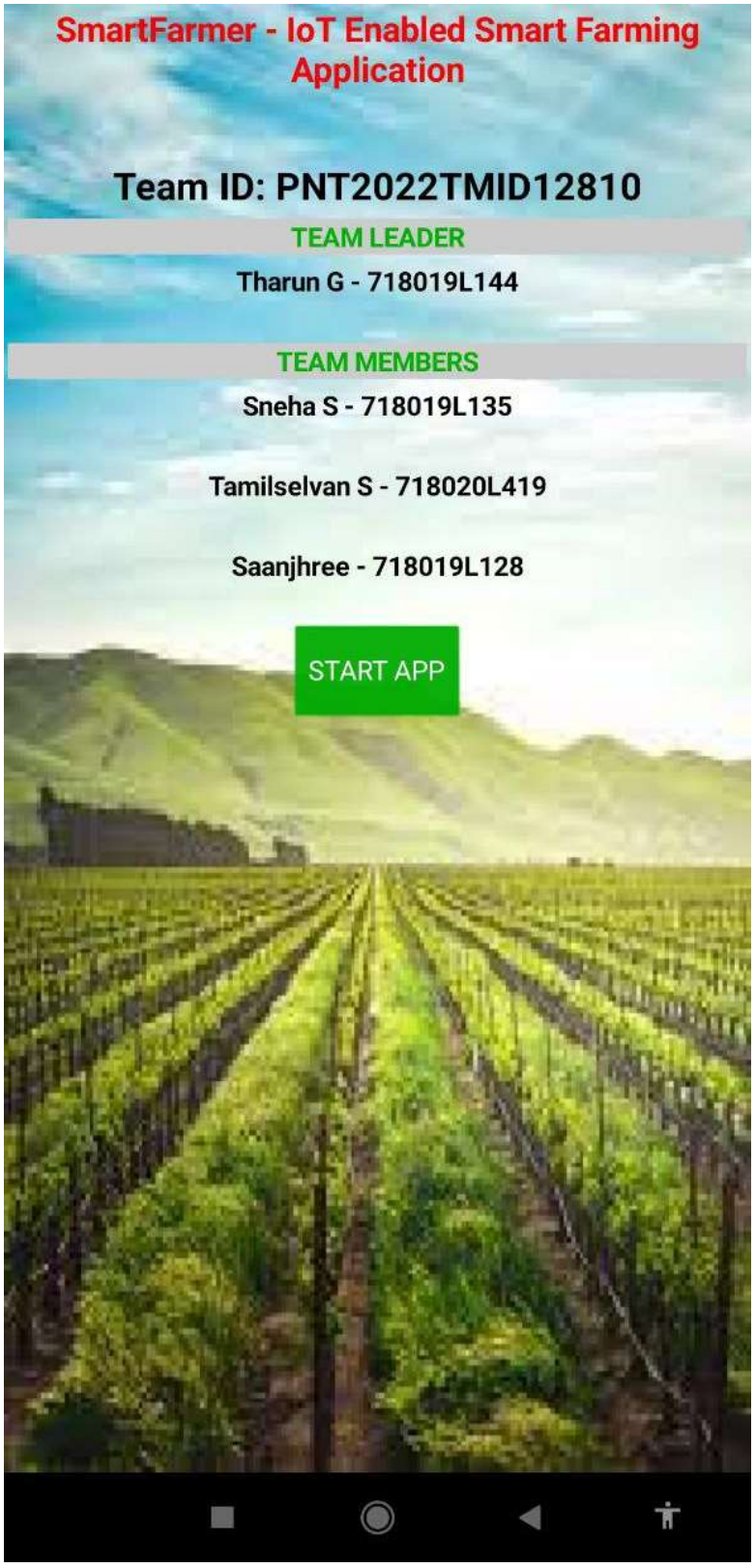
DEVELOPED MOBILE APPLICATION (To monitor field and take actions – controlling irrigation):




Smart_Farming_IOT_Project_718019L1
IBM Watson IoT Platform
Node-RED : 169.51.195.160
MIT App Inventor
Not secure | ai2.appinventor.mit.edu/#6611928584421376
SmartFarmerApp_Tharun_Team
Screen2
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Palette
Viewer
Components
Properties
Display hidden components in Viewer
Phone size (505,320)
9:48
SmartFarmer - IoT Enabled Smart Farming Application
ENVIRONMENTAL FACTORS
TEMPERATURE : NA
HUMIDITY : NA
MOTOR CONTROL
ON
OFF
BACK
Non-visible components
Media
pic.jpg
Upload File ...
Rename
Delete


Smart_Farming_IOT_Project_718019L1
IBM Watson IoT Platform
Node-RED : 169.51.195.160
MIT App Inventor
Not secure | ai2.appinventor.mit.edu/#6611928584421376
SmartFarmerApp_Tharun_Team
Screen2
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Blocks
Viewer
Built-in
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Screen2
Label1
Label3
Label2
Label4
Rename
Delete
Media
pic.jpg
Upload File ...
Show Warnings

MOBILE APP RUNNING REALTIME:



Screen2
SmartFarmer - IoT Enabled Smart Farming Application
ENVIRONMENTAL FACTORS
TEMPERATURE : 26.8
HUMIDITY : 41.5
MOTOR CONTROL
ON
OFF
BACK

(OUTPUT IN DEBUG → NODE RED)

From the above sequence of screenshots, we can understand that temperature and humidity data is updated to cloud periodically and also to the mobile application through nodered