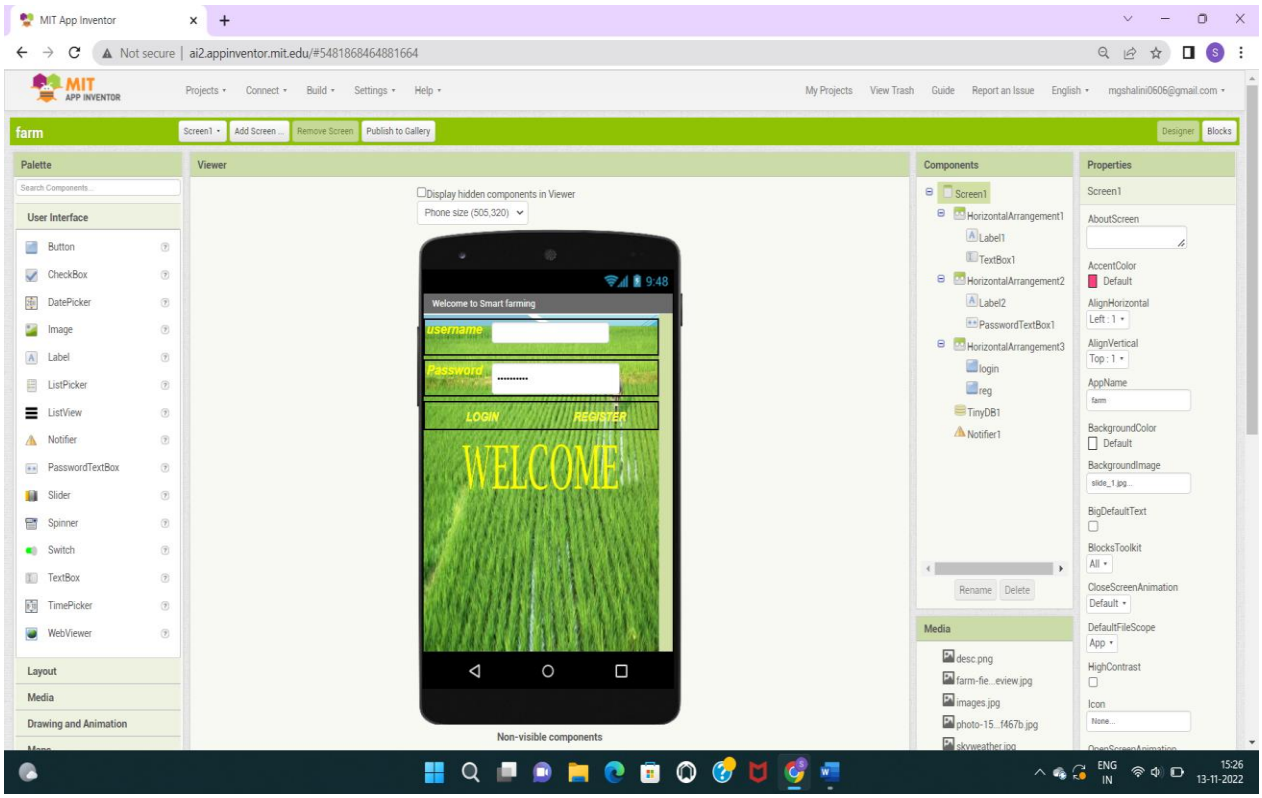
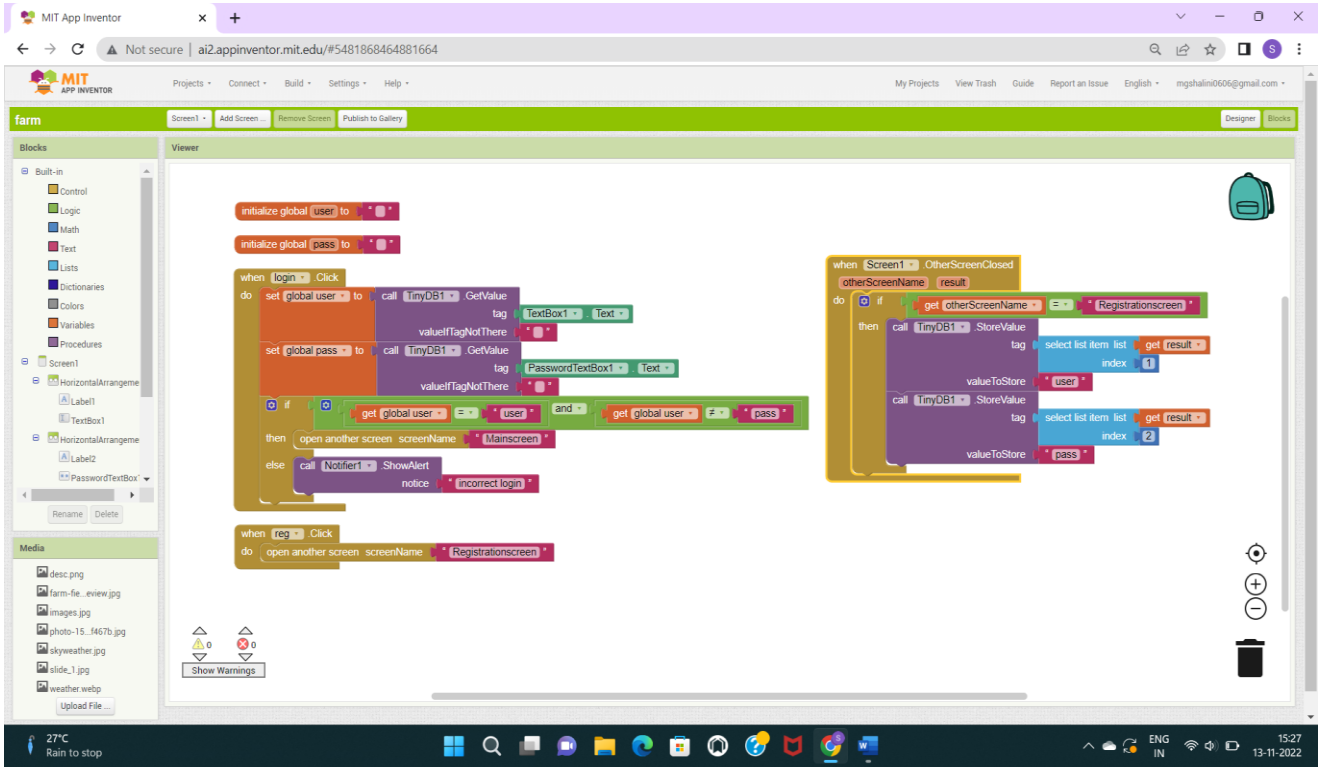
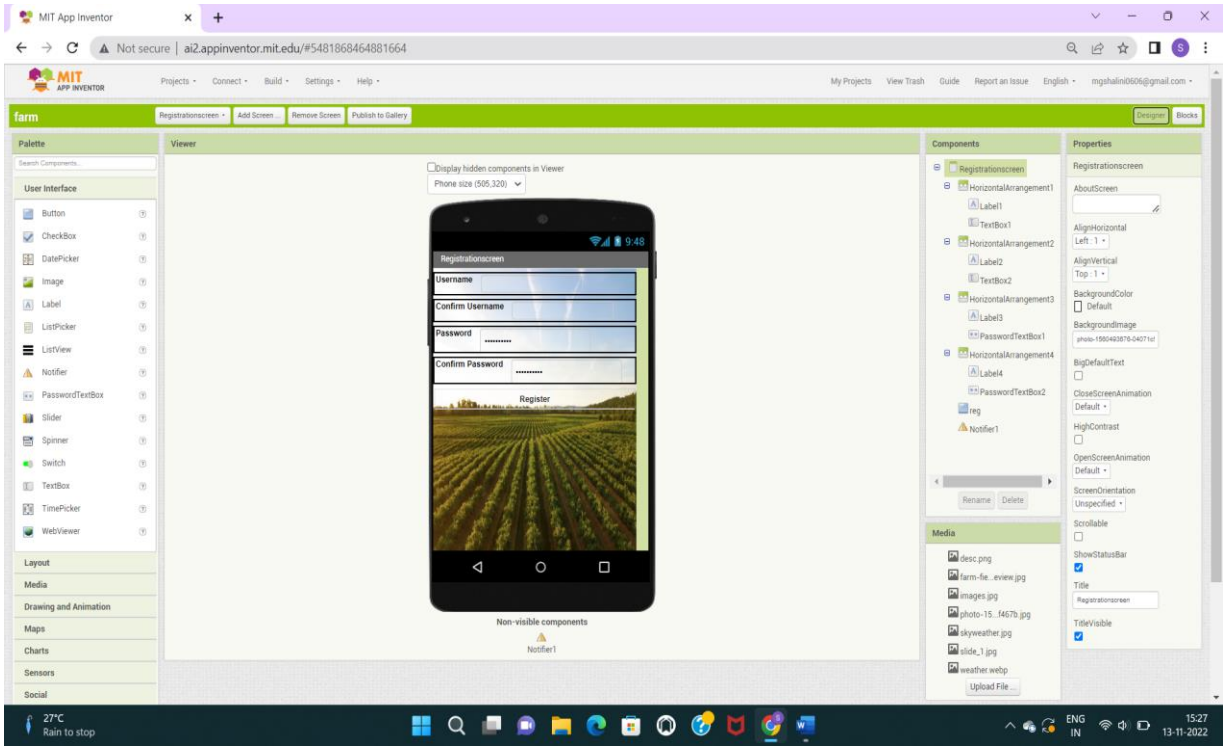
SPRINT-1

Date	29 October 2022
Team ID	PNT2022TMID11377
Project Name	Smart Farmer - IoT enabled smart farming application

MOBILE APPLICATION:




MIT App Inventor
Not secure | ai2.appinventor.mit.edu/#5481868464881664
farm
Blocks
Viewer
initialize global user to
initialize global pass to
when login .Click
do set global user to call TinyDB1 .GetValue
tag TextBox1 .Text
valueIfTagNotThere
set global pass to call TinyDB1 .GetValue
tag PasswordTextBox1 .Text
valueIfTagNotThere
if get global user = user and get global user ≠ pass
then open another screen screenName Mainscreen
else call Notifier1 .ShowAlert
notice incorrect login
when reg .Click
do open another screen screenName Registrationscreen
when Screen1 .OtherScreenClosed
otherScreenName result
do if get otherScreenName = Registrationscreen
then call TinyDB1 .StoreValue
tag
valueToStore select list item list get result
index 1
call TinyDB1 .StoreValue
tag
valueToStore select list item list get result
index 2
Show Warnings
27°C
Rain to stop
ENG
IN
15:27
13-11-2022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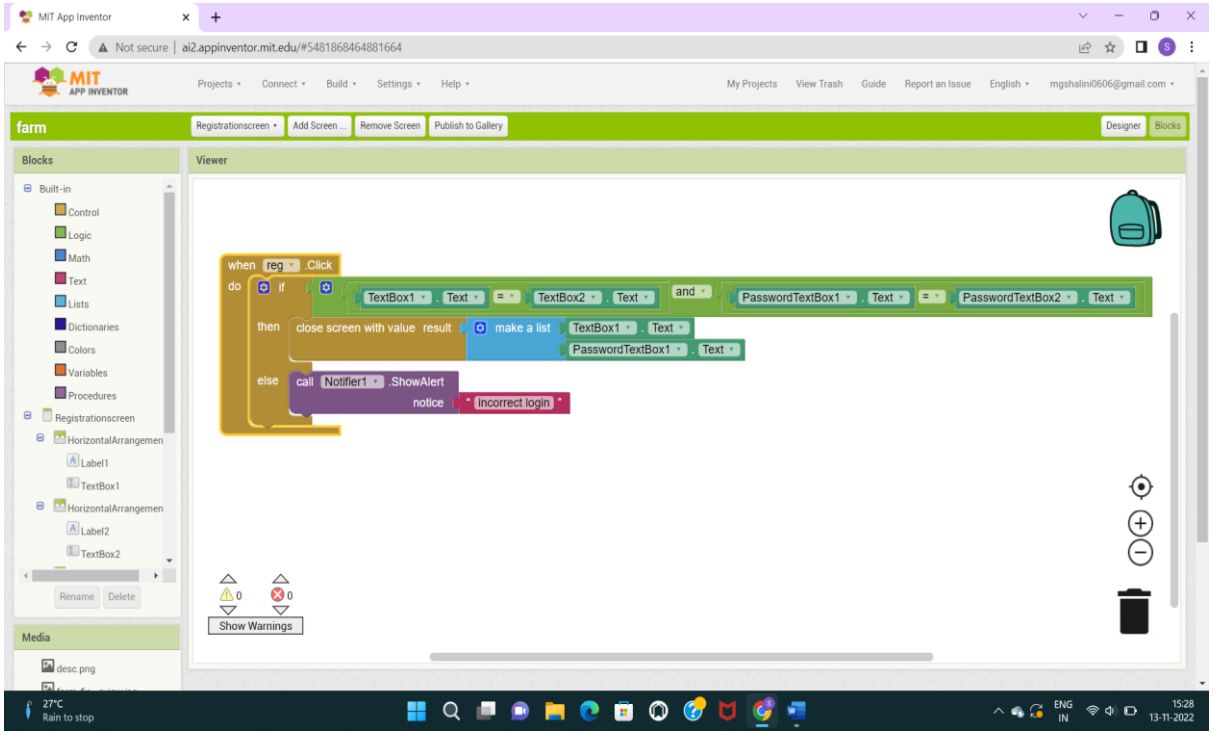
farm
Palette
Viewer
Components
Properties
Registrationscreen
Username
Confirm Username
Password
Confirm Password
Register
Non-visible components
Notifier1
Media
27°C
Rain to stop
ENG
IN
15:27
13-11-2022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Projects
Connect
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Guide
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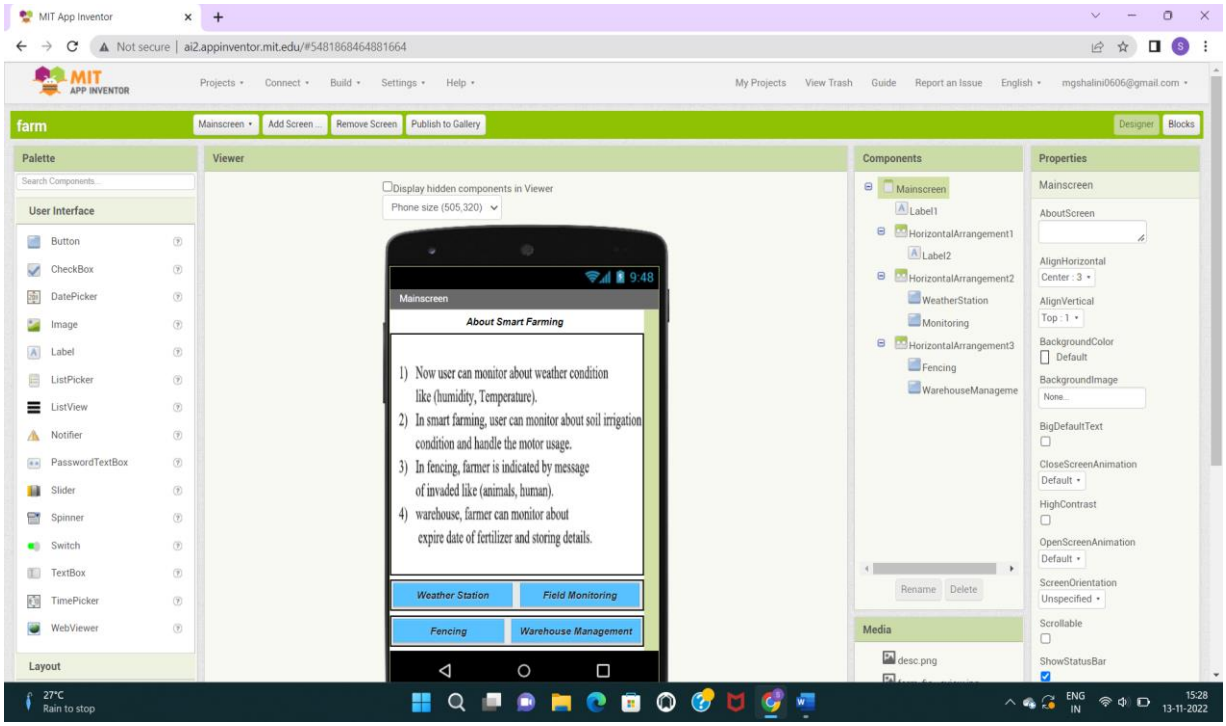
English
mgshalini0606@gmail.com
farm
Registrationscreen
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Blocks
Built-in
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Registrationscreen
HorizontalArrangemen
Label1
TextBox1
HorizontalArrangemen
Label2
TextBox2
Rename
Delete
Media
desc.png
Viewer
when reg .Click
do if
TextBox1 . Text = TextBox2 . Text and PasswordTextBox1 . Text = PasswordTextBox2 . Text
then close screen with value result make a list TextBox1 . Text
PasswordTextBox1 . Text
else call Notifier1 .ShowAlert
notice " incorrect login "
0
0
Show Warnings
27°C
Rain to stop
ENG
IN
15:28
13-11-2022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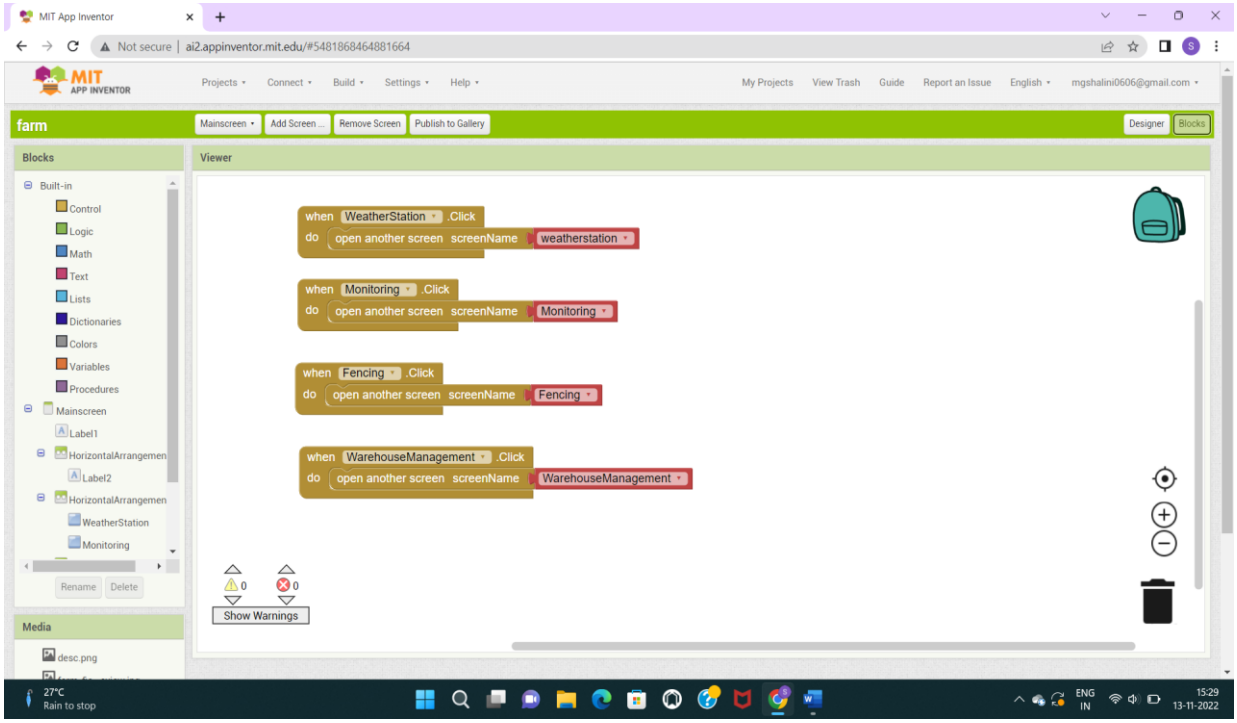
farm
Mainscreen
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Palette
Search Components...
User Interface
Button
CheckBox
DatePicker
Image
Label
ListPicker
ListView
Notifier
PasswordTextBox
Slider
Spinner
Switch
TextBox
TimePicker
WebViewer
Layout
Viewer
Display hidden components in Viewer
Phone size (505,320)
9:48
Mainscreen
About Smart Farming
1) Now user can monitor about weather condition like (humidity, Temperature).
2) In smart farming, user can monitor about soil irrigation condition and handle the motor usage.
3) In fencing, farmer is indicated by message of invaded like (animals, human).
4) warehouse, farmer can monitor about expire date of fertilizer and storing details.
Weather Station
Field Monitoring
Fencing
Warehouse Management
Components
Mainscreen
Label1
HorizontalArrangement1
Label2
HorizontalArrangement2
WeatherStation
Monitoring
HorizontalArrangement3
Fencing
WarehouseManageme
Rename
Delete
Media
desc.png
Properties
Mainscreen
AboutScreen
AlignHorizontal
Center : 3
AlignVertical
Top : 1
BackgroundColor
Default
BackgroundImage
None...
BigDefaultText
CloseScreenAnimation
Default
HighContrast
OpenScreenAnimation
Default
ScreenOrientation
Unspecified
Scrollable
ShowStatusBar
27°C
Rain to stop
ENG
IN
15:28
13-11-2022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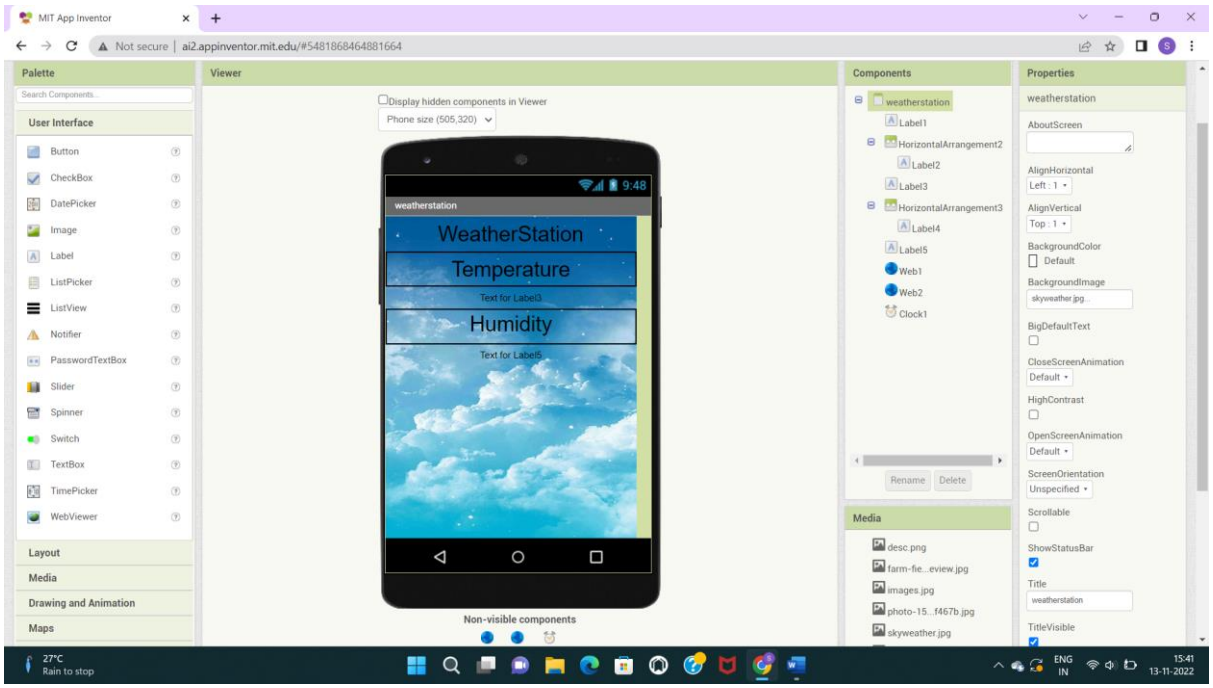
farm
Mainscreen
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Blocks
Built-in
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Mainscreen
Label1
HorizontalArrangemen
Label2
HorizontalArrangemen
WeatherStation
Monitoring
Rename
Delete
Media
desc.png
Viewer
when WeatherStation .Click
do open another screen screenName weatherstation
when Monitoring .Click
do open another screen screenName Monitoring
when Fencing .Click
do open another screen screenName Fencing
when WarehouseManagement .Click
do open another screen screenName WarehouseManagement
0
0
Show Warnings
27°C
Rain to stop
ENG
IN
15:29
13-11-2022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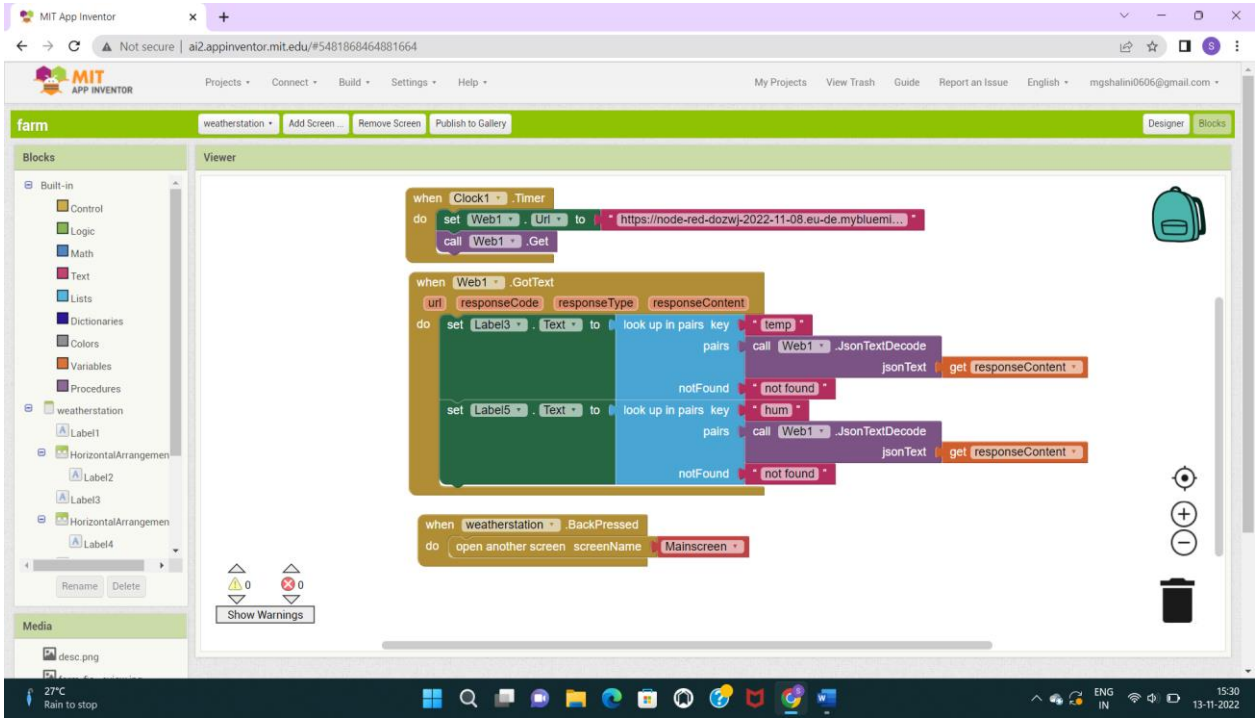
Palette
Search Components...
User Interface
Button
CheckBox
DatePicker
Image
Label
ListPicker
ListView
Notifier
PasswordTextBox
Slider
Spinner
Switch
TextBox
TimePicker
WebViewer
Layout
Media
Drawing and Animation
Maps
Viewer
Display hidden components in Viewer
Phone size (505,320)
9:48
weatherstation
WeatherStation
Temperature
Text for Label0
Humidity
Text for Label5
Non-visible components
Components
weatherstation
Label1
HorizontalArrangement2
Label2
Label3
HorizontalArrangement3
Label4
Label5
Web1
Web2
Clock1
Rename
Delete
Media
desc.png
farm-fie...eview.jpg
images.jpg
photo-15...f467b.jpg
skyweather.jpg
Properties
weatherstation
AboutScreen
AlignHorizontal
Left : 1
AlignVertical
Top : 1
BackgroundColor
Default
BackgroundImage
skyweather.jpg...
BigDefaultText
CloseScreenAnimation
Default
HighContrast
OpenScreenAnimation
Default
ScreenOrientation
Unspecified
Scrollable
ShowStatusBar
Title
weatherstation
TitleVisible
27°C
Rain to stop
ENG
IN
15:41
13-11-2022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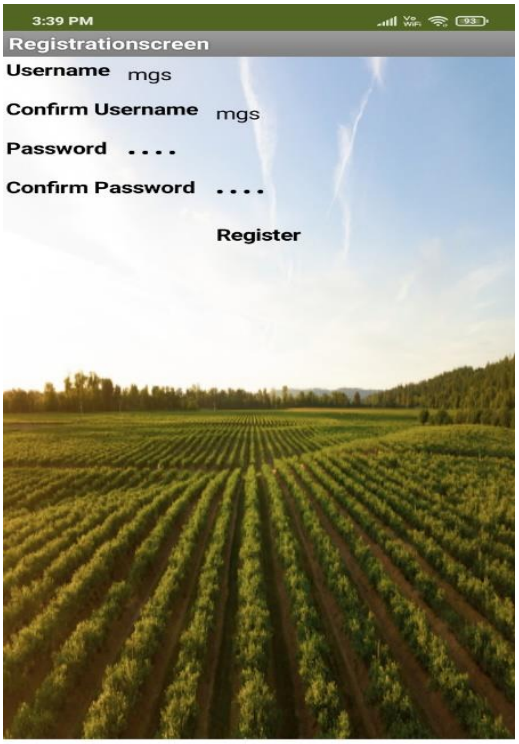
farm
weatherstation
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Blocks
Built-in
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
weatherstation
Label1
HorizontalArrangemen
Label2
Label3
HorizontalArrangemen
Label4
Rename
Delete
Media
desc.png
Viewer
when Clock1 .Timer
do set Web1 . Url to " https://node-red-dozwj-2022-11-08.eu-de.mybluemi... "
call Web1 .Get
when Web1 .GotText
url responseCode responseType responseContent
do set Label3 . Text to look up in pairs key " temp "
pairs call Web1 .JsonTextDecode
jsonText get responseContent
notFound " not found "
set Label5 . Text to look up in pairs key " hum "
pairs call Web1 .JsonTextDecode
jsonText get responseContent
notFound " not found "
when weatherstation .BackPressed
do open another screen screenName Mainscreen
0
0
Show Warnings
27°C
Rain to stop
ENG
IN
15:30
13-11-2022

MOBILE VIEW:

3:37 PM
Welcome to Smart farming
username
mgs
Password
REGISTER
LOGIN
WELCOME


3:39 PM
Registrationscreen
Username mgs
Confirm Username mgs
Password
Confirm Password
Register

3:40 PM
Mainscreen
About Smart Farming
1) Now user can monitor about weather condition like (humidity, Temperature).
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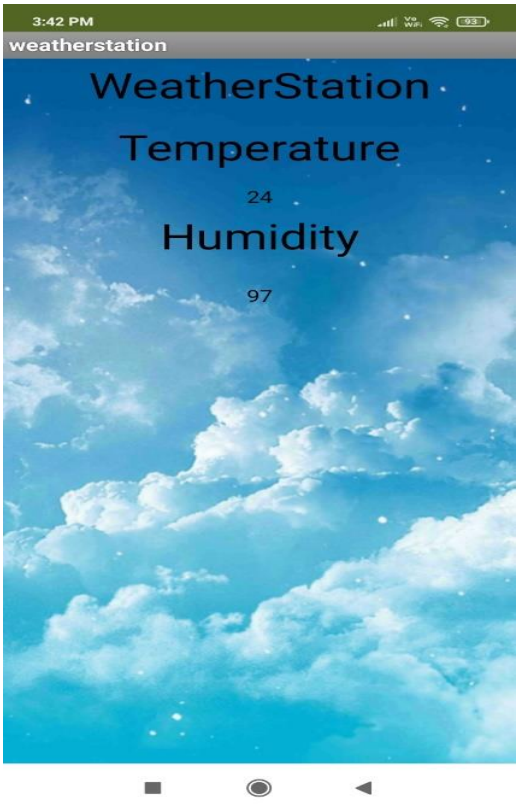
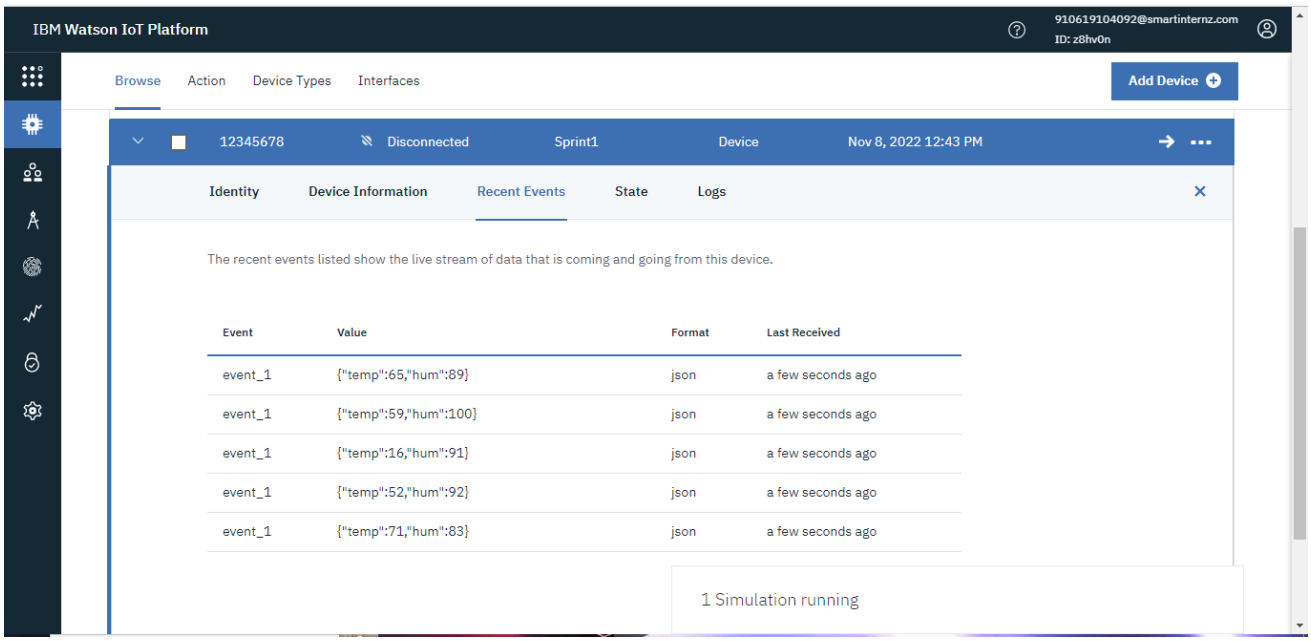
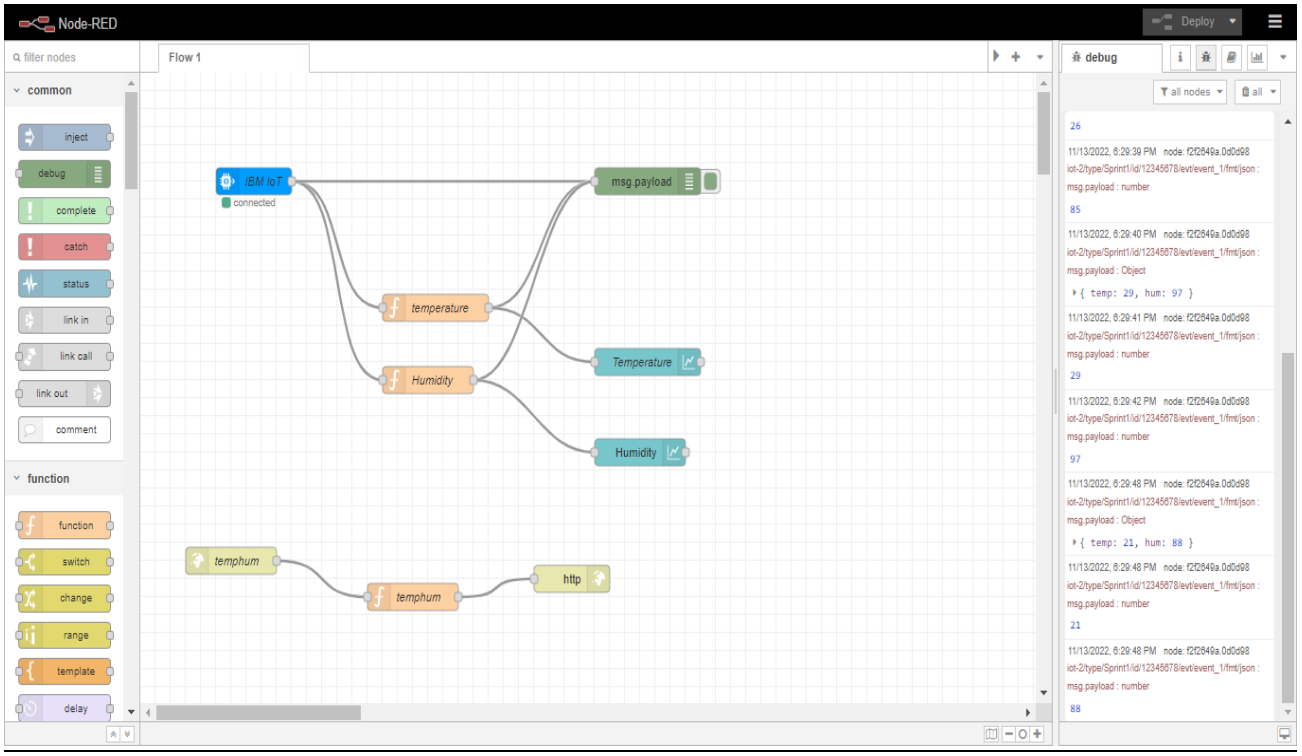
4) warehouse, farmer can monitor about expire date of fertilizer and storing details.
Weather Station
Field Monitoring
Fencing
Warehouse Management


3:42 PM
weatherstation
WeatherStation
Temperature
24
Humidity
97

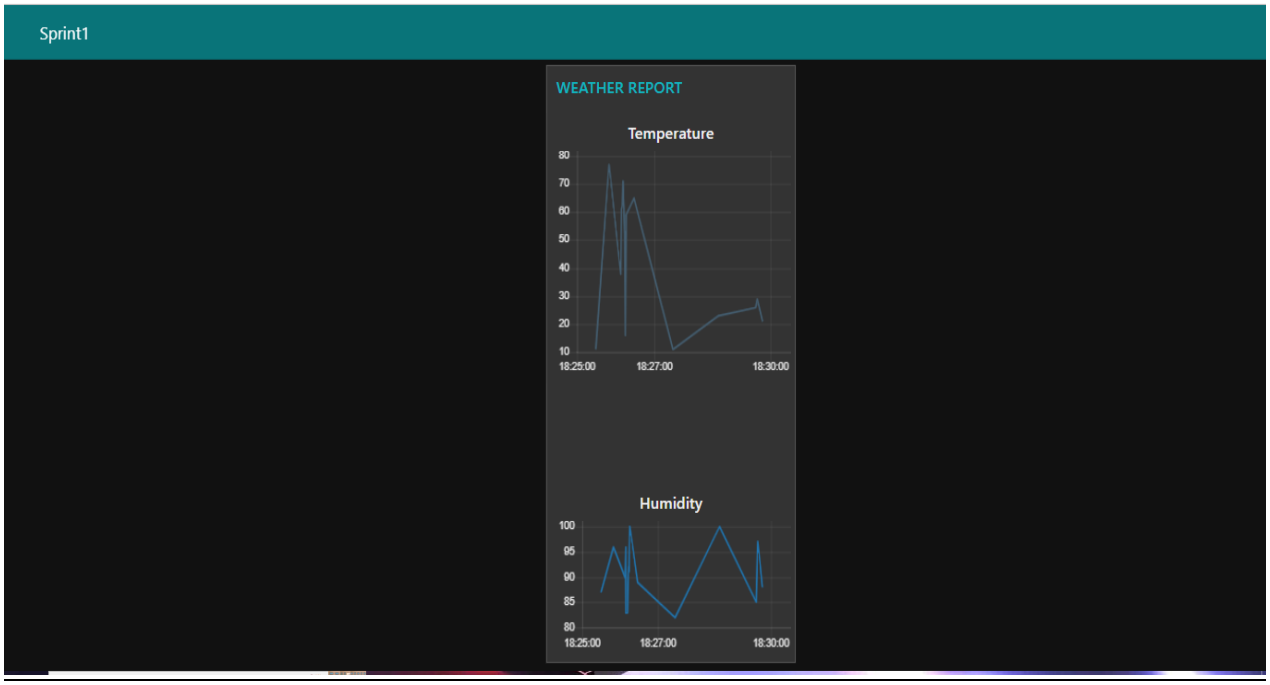
CLOUD DEVICE:



NODE RED:

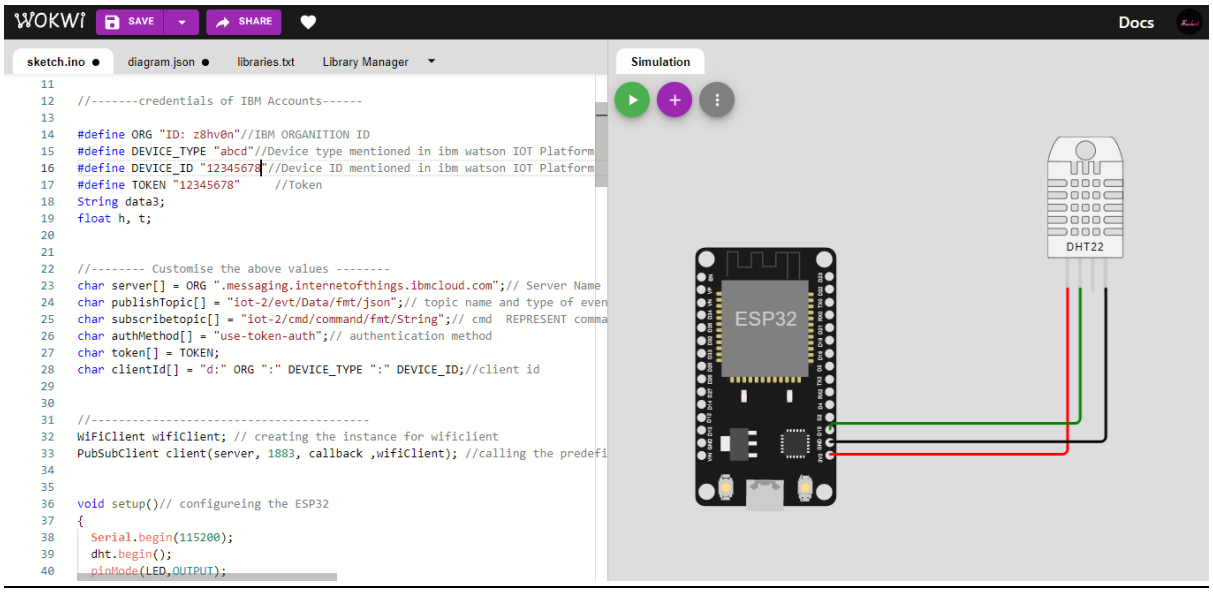


WEB PAGE:



DATA FROM NODE RED :

WOKWI CONNECTION:




```
11
12  //-------credentials of IBM Accounts------
13
14  #define ORG "ID: z8hv0n"//IBM ORGANITION ID
15  #define DEVICE_TYPE "abcd"//Device type mentioned in ibm watson IOT Platform
16  #define DEVICE_ID "12345678"//Device ID mentioned in ibm watson IOT Platform
17  #define TOKEN "12345678"      //Token
18  String data3;
19  float h, t;
20
21
22  //-------- Customise the above values --------
23  char server[] = ORG ".messaging.internetofthings.ibmcloud.com";// Server Name
24  char publishTopic[] = "iot-2/evt/Data/fmt/json";// topic name and type of even
25  char subscribetopic[] = "iot-2/cmd/command/fmt/String";// cmd  REPRESENT comma
26  char authMethod[] = "use-token-auth";// authentication method
27  char token[] = TOKEN;
28  char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;//client id
29
30
31  //-----------------------------------------
32  WiFiClient wifiClient; // creating the instance for wificlient
33  PubSubClient client(server, 1883, callback ,wifiClient); //calling the predefi
34
35
36  void setup()// configureing the ESP32
37  {
38    Serial.begin(115200);
39    dht.begin();
40    pinMode(LED,OUTPUT);
```