

## Build A Web Application Using Node-RED

Team ID	PNT2022TMID08745
Project Name	Smart Farmer - IoT Enabled Smart FarmingApplication

### Open IBM Watson and click Apps and Generate API key

IBM Watson IoT Platform

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Browse IBM Cloud Apps

+ Generate API Key

### Browse API Keys

Type the app description to search for

This table shows a summary of the API keys that have been added for the organization. It can be filtered, organized, and search on using different criteria. To get started, you can add API keys by clicking Generate API Key, or by using the API. For more information about adding API keys, see [API key connection](#).

<input type="checkbox"/>	Key	Description	Role	Expires	
2 results					
<input type="checkbox"/>	a-dcehdm-hatncfkpkb	API Key for the device simulator	Standard Application	-	⋮ <input checked="" type="checkbox"/>
<input type="checkbox"/>	a-dcehdm-iies4lfdgq	-	Standard Application	-	⋮ <input checked="" type="checkbox"/>

0 Simulations running

**First open Node RED workspace and drag IBM IOT input into the workspace. It will ask API key, device id, device type etc.**

node-red-vlsno-2022-11-14.eu-gb.mybluemix.net/red/#flow/3a871d1aa6dceb1a

Node-RED

Deploy

filter nodes

Flow 1

welcome

msg.payload

IBM IoT

Edit ibmiot in node > Add new ibmiot config node

Cancel Add

Properties

Name

API Key

API Token

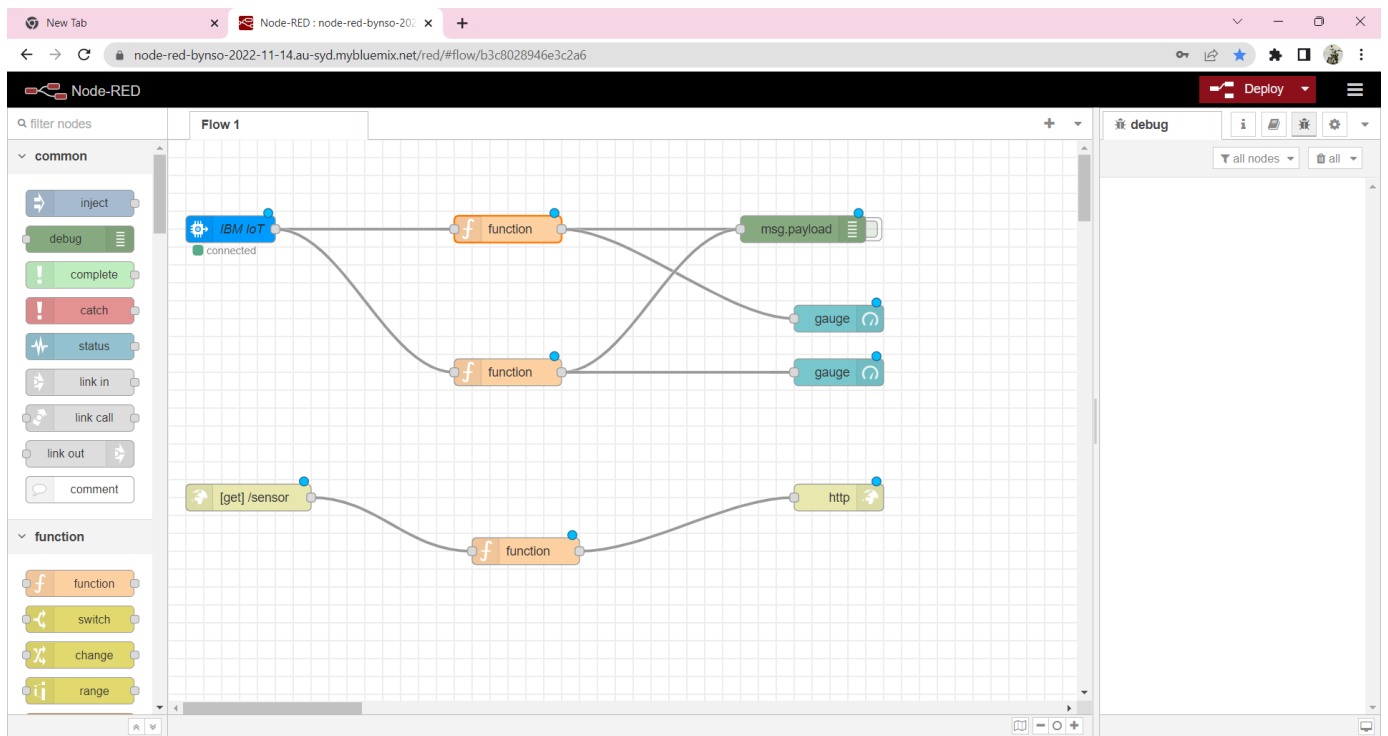
Server-Name orgid.messaging.internetofthings.ibmcloud.com

Scalable ☐ Application ID

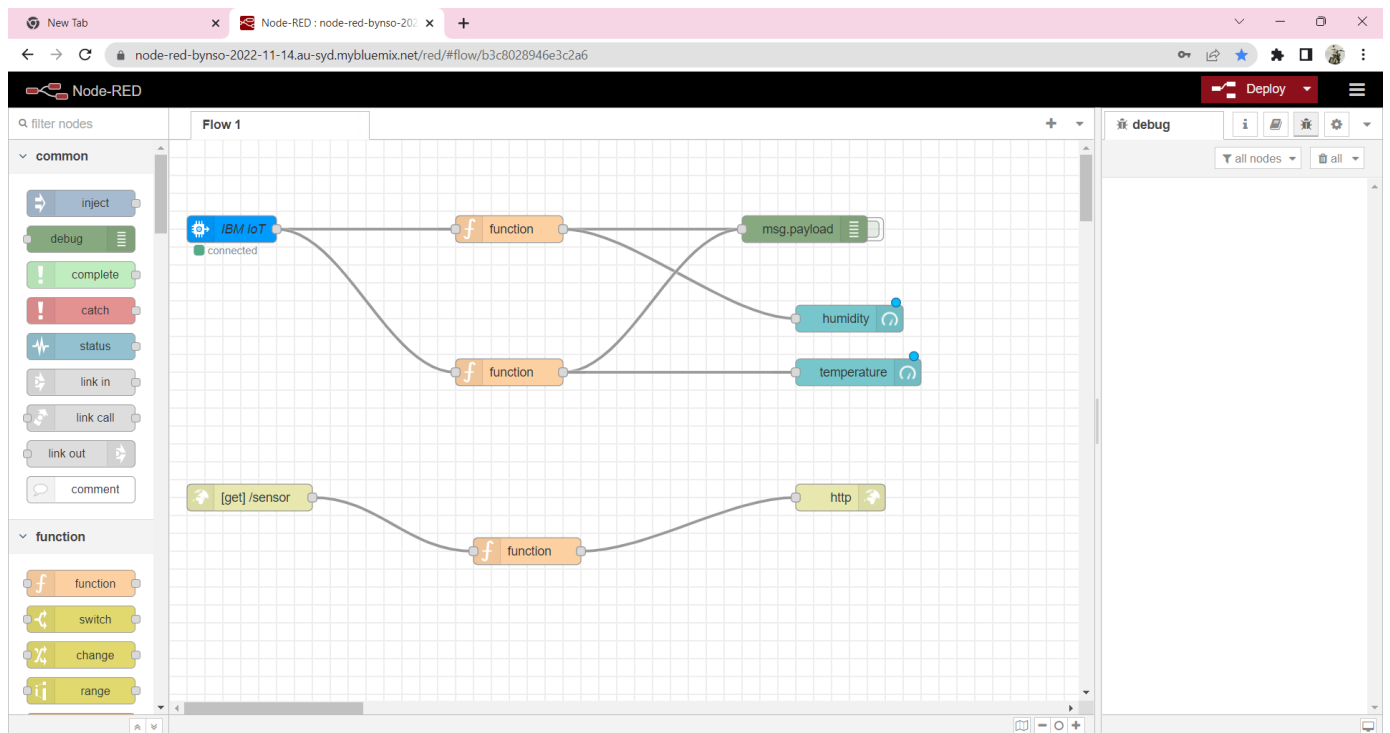
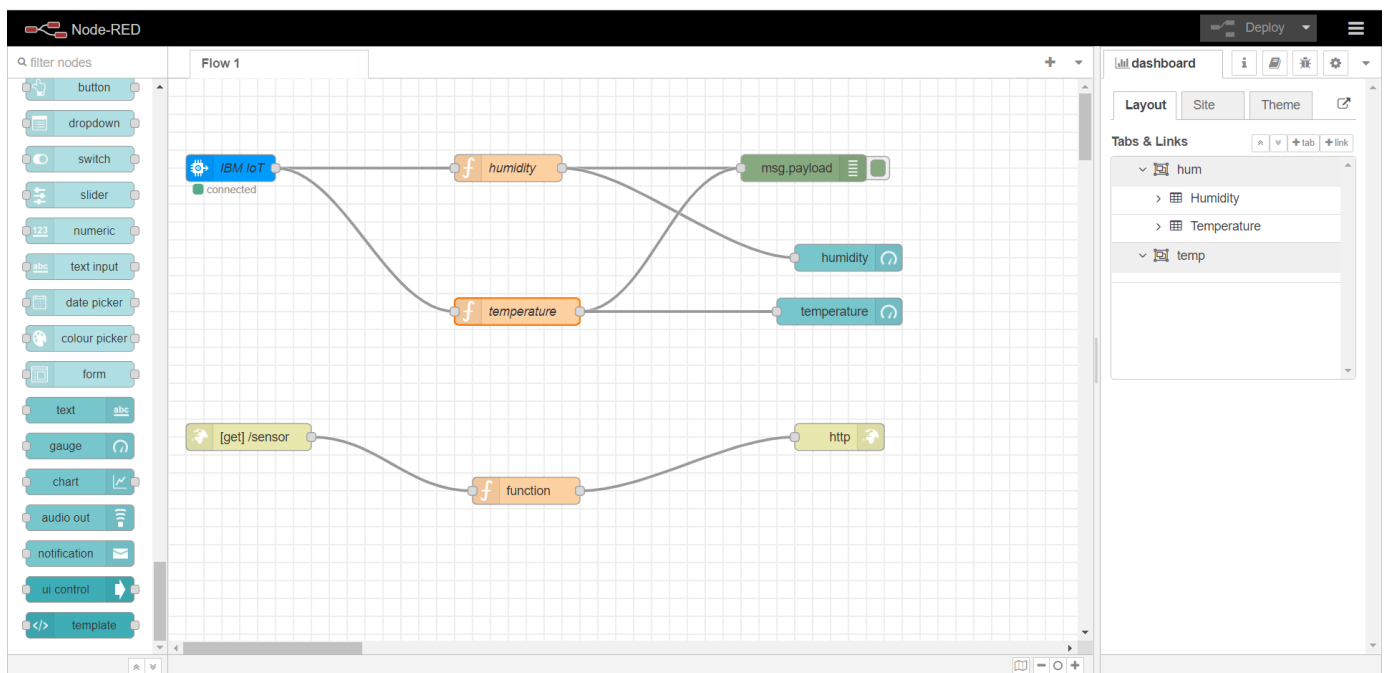
Keep Alive 60 Seconds ☒ Use Clean Session

Enabled 0 nodes use this config On all flows

# Output from IBM IOT



And take a function node and rename it



Node-RED interface showing a flow with an IBM IoT node and a [get] /sensor node. The User Settings panel is open, displaying the Install tab for the node palette. The search results show several IBM-related nodes, including node-red-ibmconnections, node-red-contrib-ibm-db2, node-red-contrib-ibm-igc, node-red-contrib-ibm-maximo-osc-api, node-red-contrib-ibm-maximo-rest-api, and node-red-contrib-ibm-watson-iot.

**User Settings - Install**

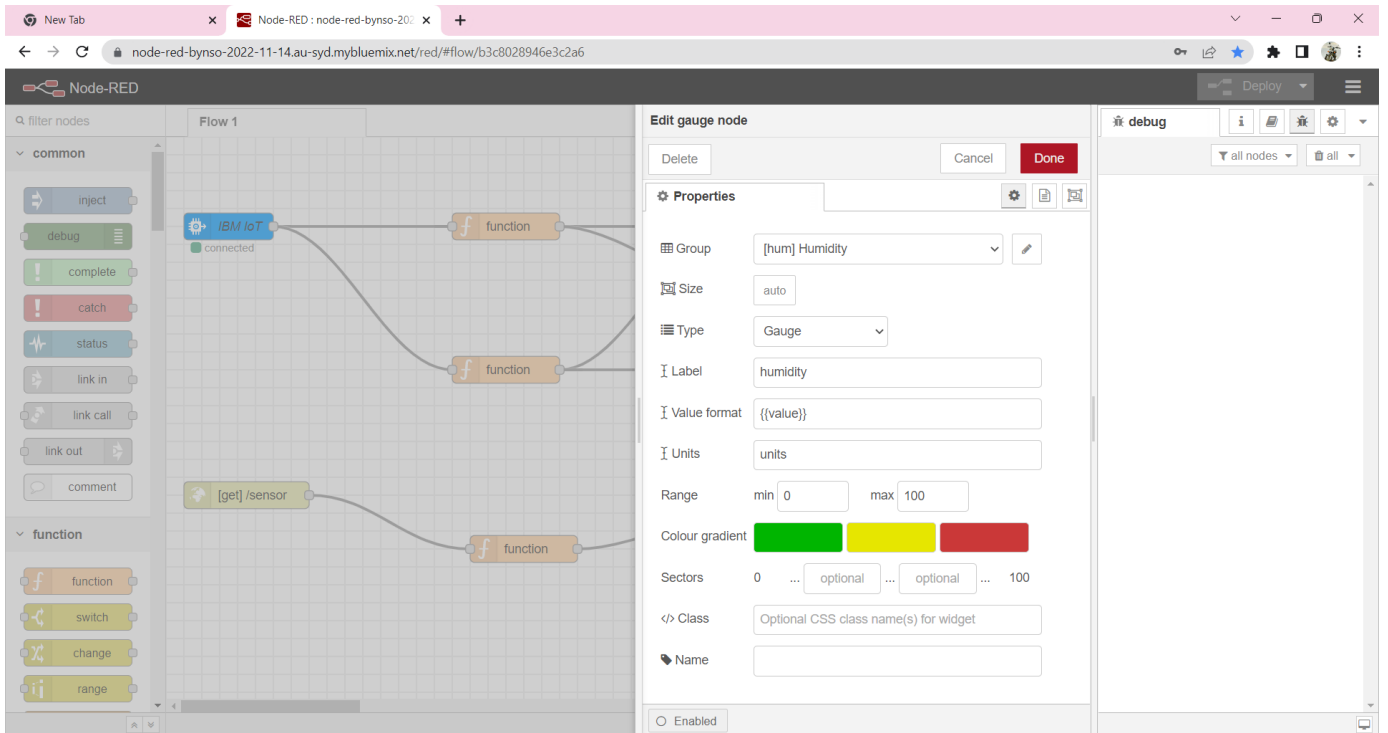
Search:  41 / 4153

- node-red-ibmconnections** [↗](#)  
DEPRECATED IBM Connections NodeRed nodes  
9.5.3 5 years, 10 months ago [install](#)
- node-red-contrib-ibm-db2** [↗](#)  
Node-RED nodes to access Db2 cloud services and Db2 LUW  
0.3.1 2 years, 3 months ago [installed](#)
- node-red-contrib-ibm-igc** [↗](#)  
Node-RED nodes for integrating with IBM Information Governance Catalog  
0.2.2 4 years, 10 months ago [install](#)
- node-red-contrib-ibm-maximo-osc-api** [↗](#)  
Maximo Osc Api node for Node-RED  
0.1.4 4 years, 7 months ago [install](#)
- node-red-contrib-ibm-maximo-rest-api** [↗](#)  
Maximo REST Api node for Node-RED, based on IBM-Maximo-Osc-Api  
0.2.0 4 years, 10 months ago [install](#)
- node-red-contrib-ibm-watson-iot** [↗](#)

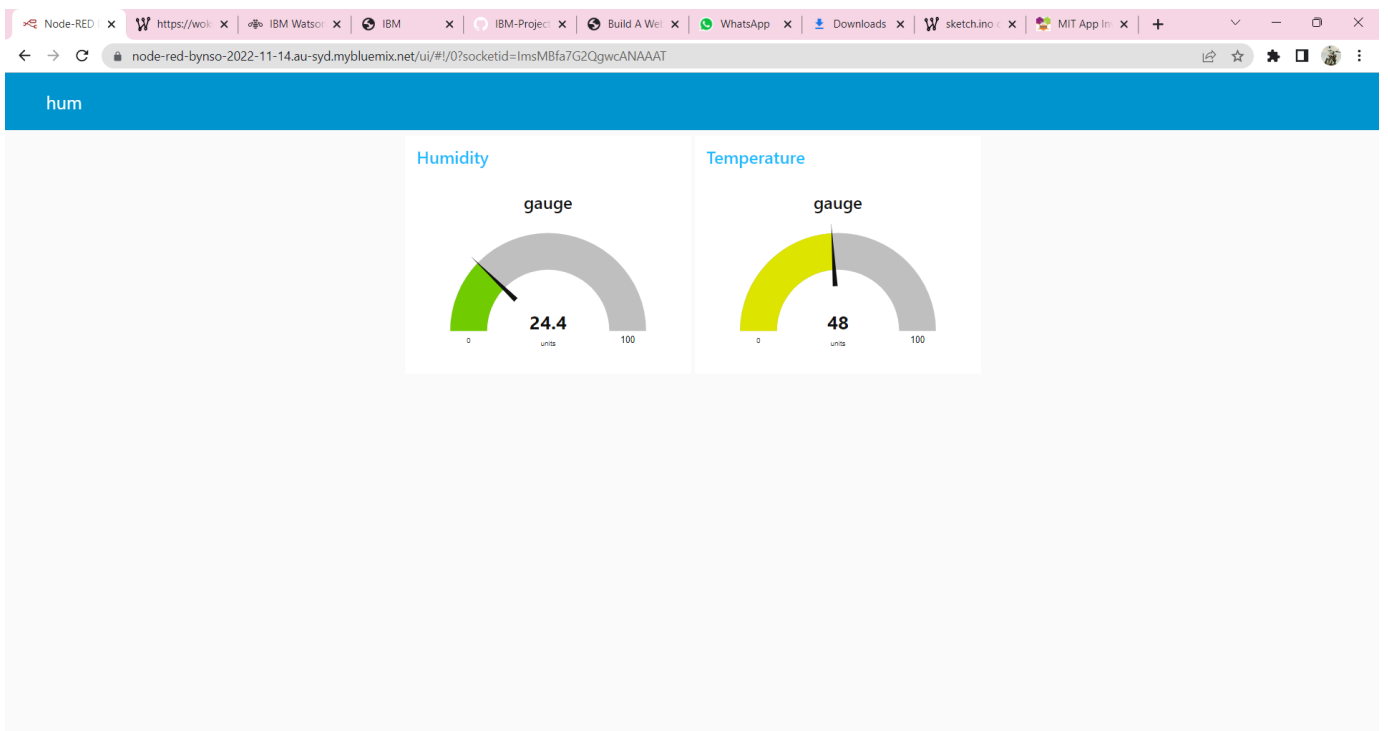
Node-RED interface showing a flow with an IBM IoT node and a [get] /sensor node. The Edit function node panel is open, displaying the On Message tab. The function code is as follows:

```
1 msg.payload = msg.payload.temp
2 global.set("t",msg.payload)
3 return msg;
```

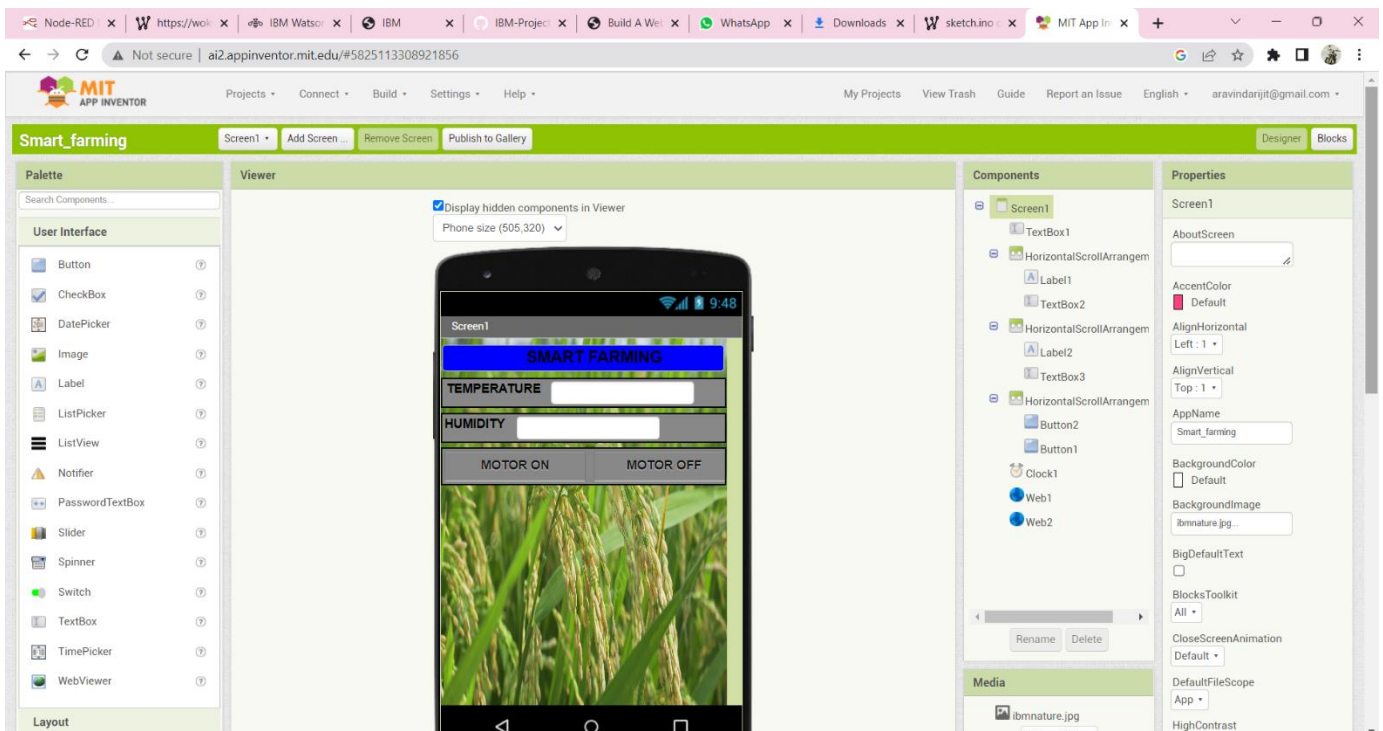
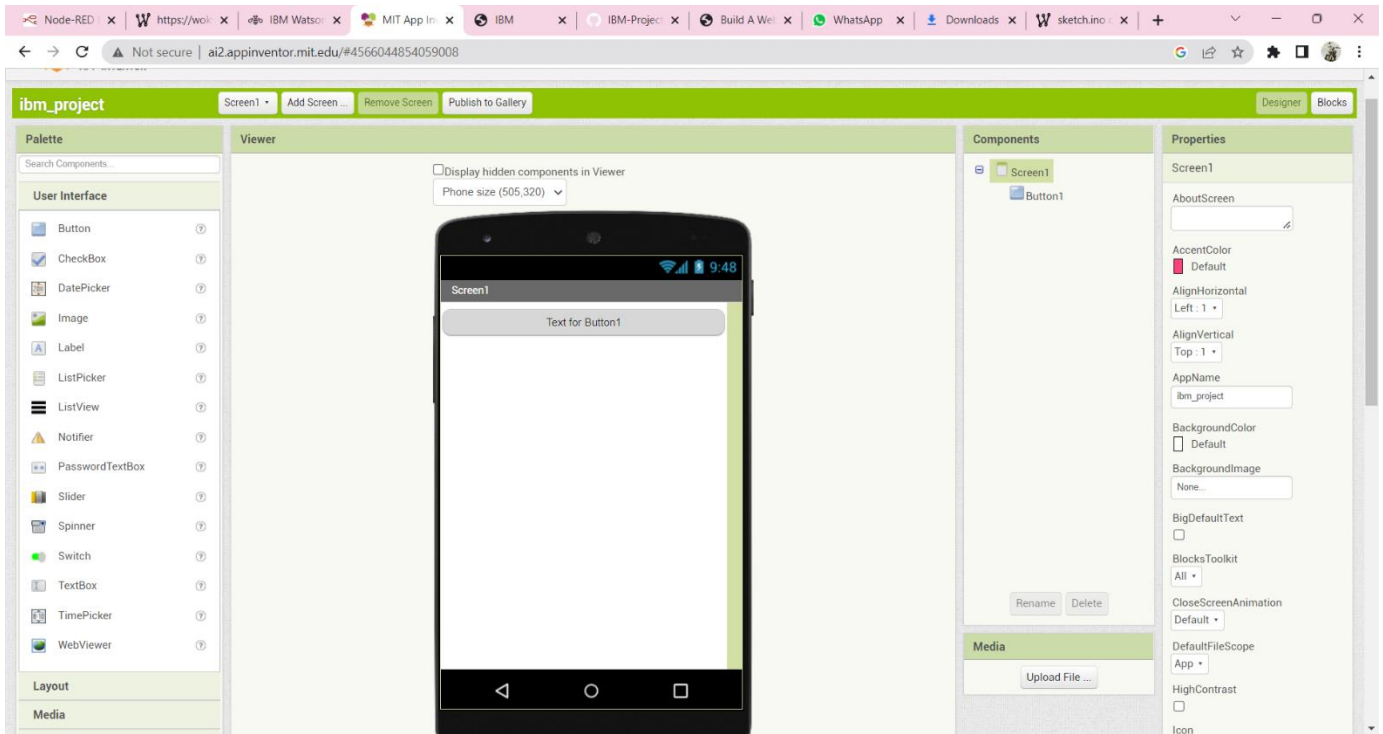
The flow is titled "Flow 1" and includes an IBM IoT node (connected) and a [get] /sensor node. The function node is labeled "func".



## Output



# Mit App Inventor



# Blocks:

MIT APP INVENTOR

Smart\_farming

Screen2

Blocks

Viewer

when Clock1.Timer

do

set Web1.Url to

call Web1.Get

when Web1.GotText

uri

responseCode

responseType

responseContent

do

set Label3.Text to

look up in pairs key

temp

pairs

call Web1.JsonTextDecode

jsonText

get responseContent

not found

set Label5.Text to

look up in pairs key

Humid

pairs

call Web1.JsonTextDecode

jsonText

get responseContent

not found

Show Warnings

Media

ibmnature.jpg

MIT APP INVENTOR

Smart\_farming

Screen2

Blocks

Viewer

when Button1.Click

do

set Web2.Url to

call Web2.Get

when Button2.Click

do

set Web2.Url to

call Web2.Get

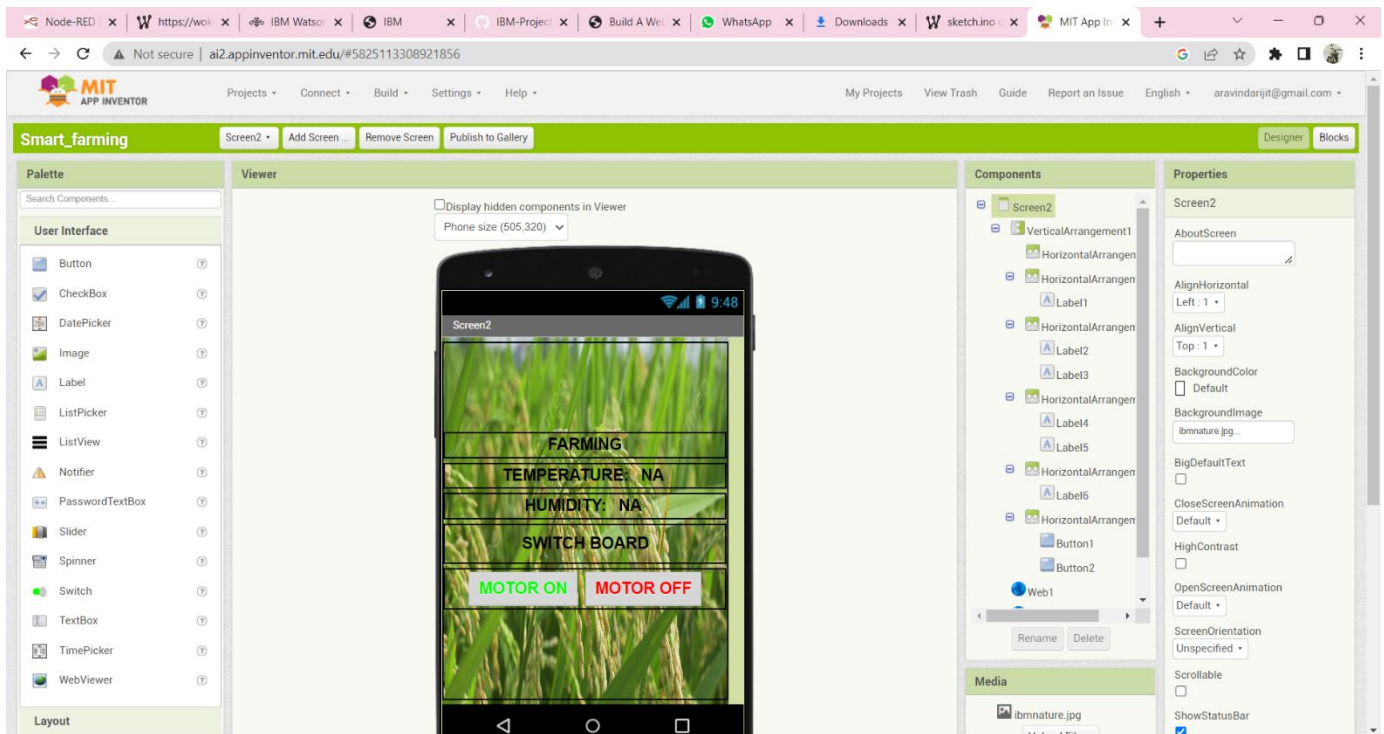
Show Warnings

Media

ibmnature.jpg



Output:



Mobile screen:





