Delivery Sprint-2

IoT based Smart crop protection system for Agriculture

TEAM ID:PNT2022TMID45173

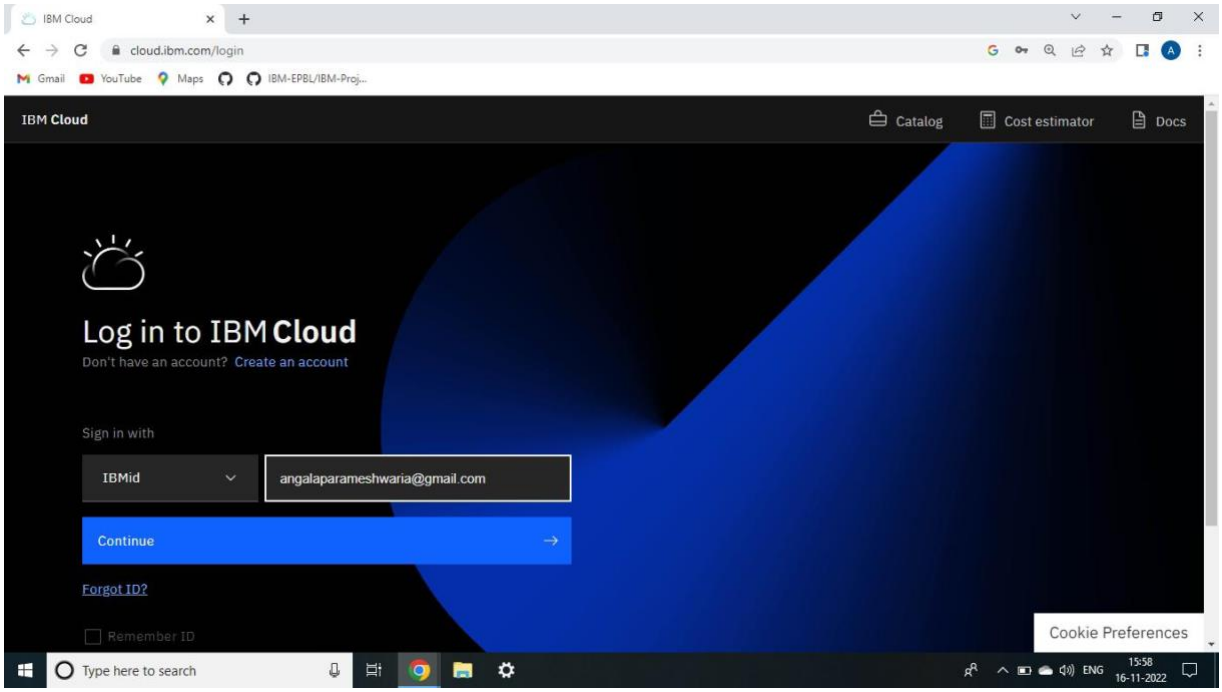
Sprint-2

Software (Create device in the IoT Watson platform, workflow for IoT scenarios using Node-Red)

STEPS

1) Create a IBM Cloud account using the instructions given by tutorial instructors / watching the manual in the Drive Documents.
2) Then Login to the IBM Cloud and it open to the Dashboard.
3) Create a IoT Service and save the individual credential shown in the display.
4) Launch the IBM IoT Watson Platform and Create a new device and save the credential for future references.
5) Add new device and code the program for the module / project and save it.
6) Finally Simulate using the device simulator and create the board to show the data's in output of the event flow.
7) Then create a Node-Red flow using the required credential like shown in the tutorial as a reference.
8) Connect the Node-Red with IBM IoT Watson with the required API Key information and deploy the Node-Red for the Data to show.

THE PROCESS


IBM Cloud
cloud.ibm.com/login
Gmail
YouTube
Maps
IBM-EPBL/IBM-Proj...
IBM Cloud
Catalog
Cost estimator
Docs
Log in to IBM Cloud
Don't have an account? Create an account
Sign in with
IBMid
angalaparameshwaria@gmail.com
Continue
Forgot ID?
Remember ID
Cookie Preferences
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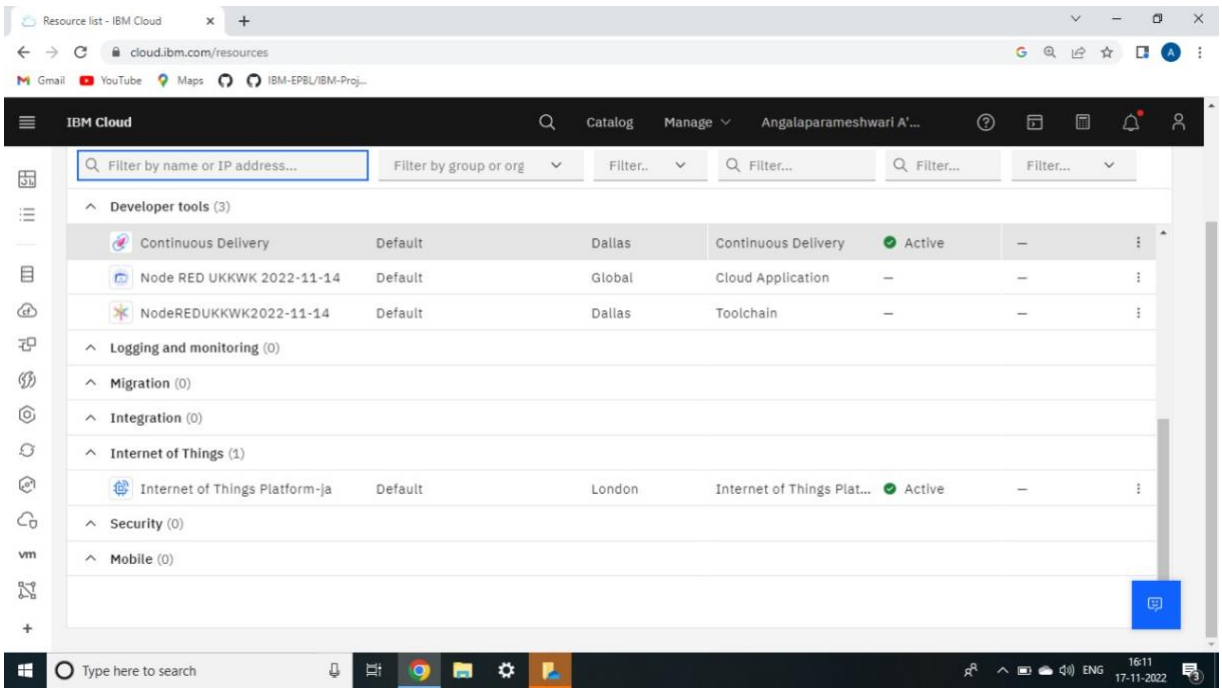
ENG
15:58
16-11-2022


Resource list - IBM Cloud
cloud.ibm.com/resources
Gmail
YouTube
Maps
IBM-EPBL/IBM-Proj...
IBM Cloud
Catalog
Manage
Angalaparameshwari A'...
Filter by name or IP address...
Filter by group or org
Filter...
Developer tools (3)
Continuous Delivery
Default
Dallas
Continuous Delivery
Active
Node RED UKKWK 2022-11-14
Default
Global
Cloud Application
NodeREDUKKWK2022-11-14
Default
Dallas
Toolchain
Logging and monitoring (0)
Migration (0)
Integration (0)
Internet of Things (1)
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Security (0)
Mobile (0)
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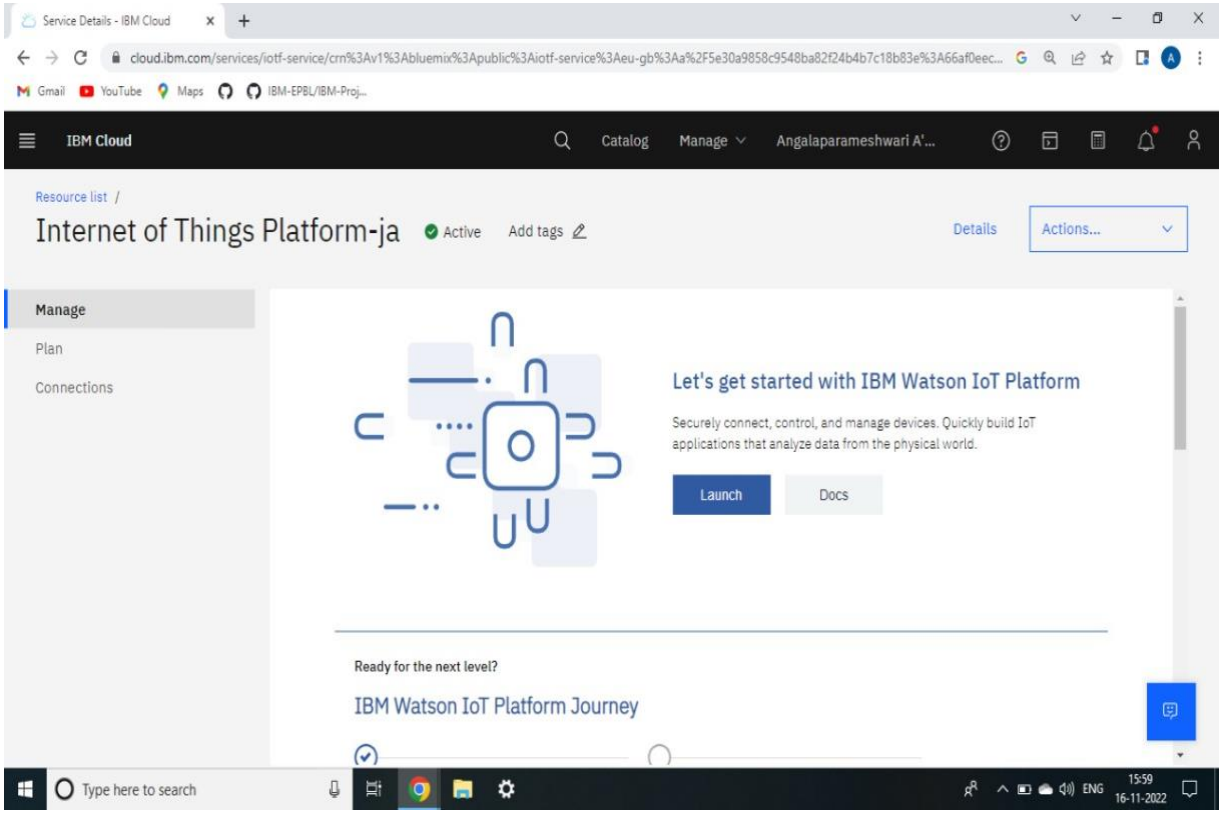
Service Details - IBM Cloud
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Gmail
YouTube
Maps
IBM-EPBL/IBM-Proj...
IBM Cloud
Catalog
Manage
Angalaparameshwari A'...
Resource list /
Internet of Things Platform-ja
Active
Add tags
Details
Actions...
Manage
Plan
Connections
Let's get started with IBM Watson IoT Platform
Securely connect, control, and manage devices. Quickly build IoT applications that analyze data from the physical world.
Launch
Docs
Ready for the next level?
IBM Watson IoT Platform Journey
Type here to search
ENG
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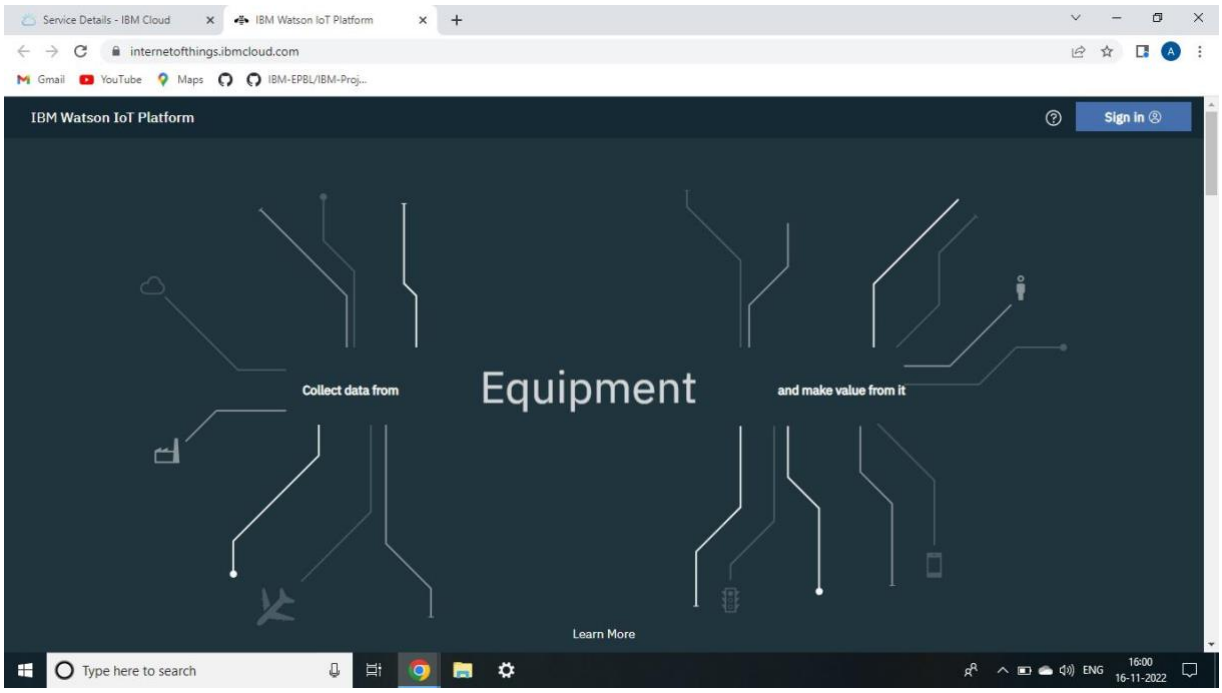
16-11-2022


Service Details - IBM Cloud
IBM Watson IoT Platform
internetofthings.ibmcloud.com
Gmail
YouTube
Maps
IBM-EPBL/IBM-Proj...
IBM Watson IoT Platform
Sign in
Collect data from
Equipment
and make value from it
Learn More
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ENG
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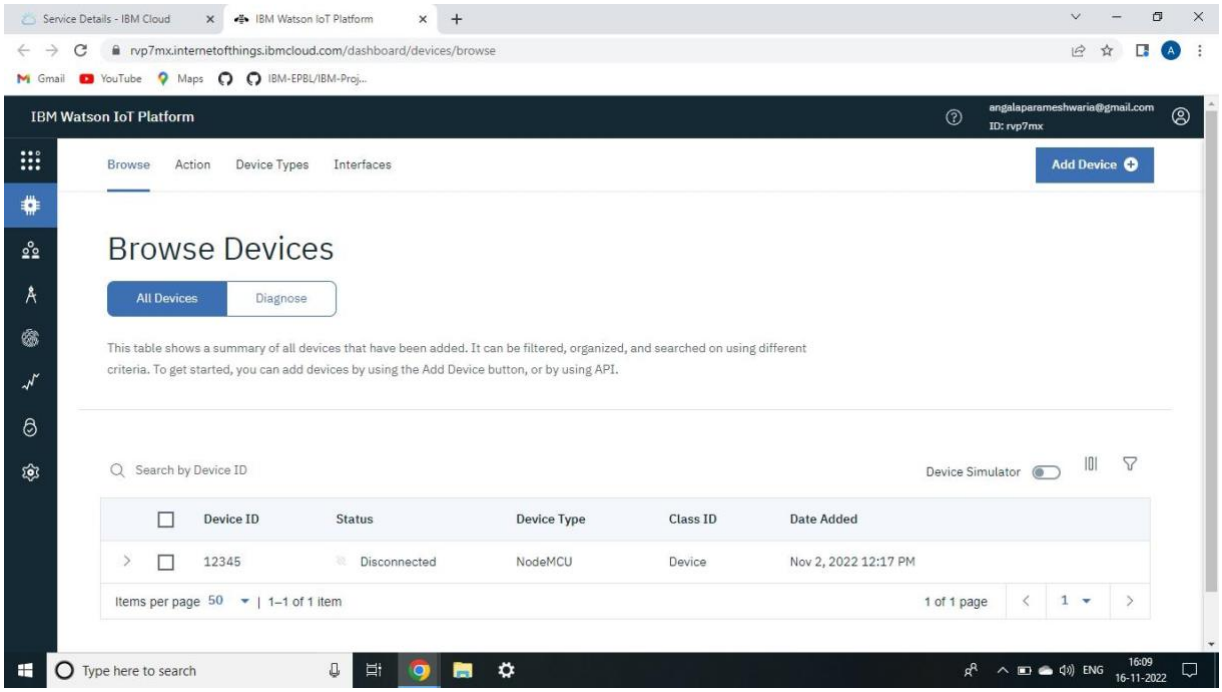
Service Details - IBM Cloud
IBM Watson IoT Platform
rvp7mx.internetofthings.ibmcloud.com/dashboard/devices/browse
Gmail
YouTube
Maps
IBM-EPBL/IBM-Proj...
IBM Watson IoT Platform
angalaparameshwaria@gmail.com
ID: rvp7mx
Browse
Action
Device Types
Interfaces
Add Device
Browse Devices
All Devices
Diagnose
This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.
Search by Device ID
Device Simulator
Device ID
Status
Device Type
Class ID
Date Added
12345
Disconnected
NodeMCU
Device
Nov 2, 2022 12:17 PM
Items per page 50
1–1 of 1 item
1 of 1 page
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ENG
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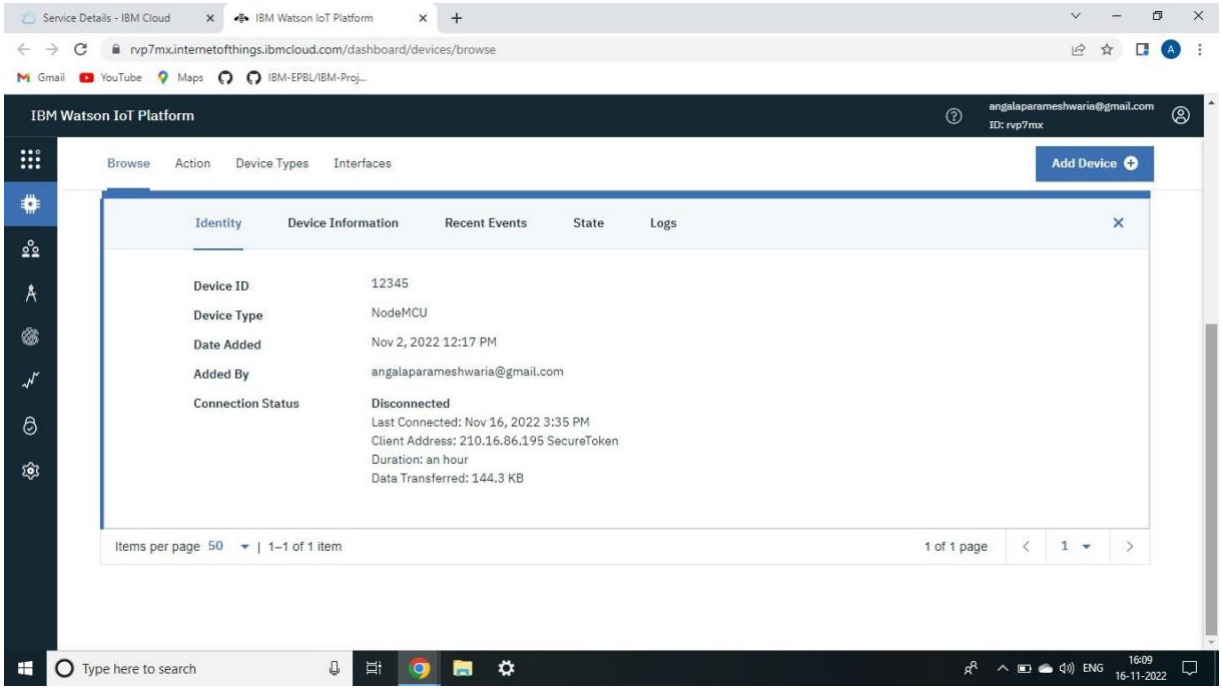
Service Details - IBM Cloud
IBM Watson IoT Platform
rvp7mx.internetofthings.ibmcloud.com/dashboard/devices/browse
Gmail
YouTube
Maps
IBM-EPBL/IBM-Proj...
IBM Watson IoT Platform
angalaparameshwaria@gmail.com
ID: rvp7mx
Browse
Action
Device Types
Interfaces
Add Device
Identity
Device Information
Recent Events
State
Logs
Device ID
12345
Device Type
NodeMCU
Date Added
Nov 2, 2022 12:17 PM
Added By
angalaparameshwaria@gmail.com
Connection Status
Disconnected
Last Connected: Nov 16, 2022 3:35 PM
Client Address: 210.16.86.195 SecureToken
Duration: an hour
Data Transferred: 144.3 KB
Items per page 50
1–1 of 1 item
1 of 1 page
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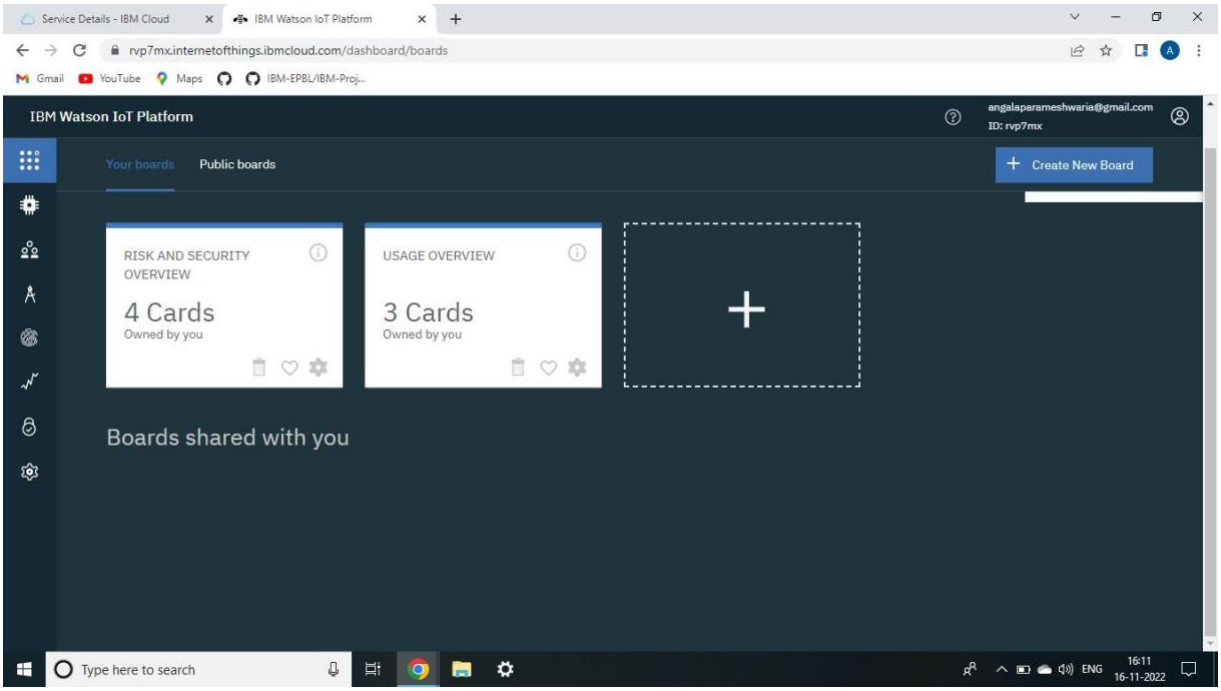
Service Details - IBM Cloud
IBM Watson IoT Platform
rvp7mx.internetofthings.ibmcloud.com/dashboard/boards
Gmail
YouTube
Maps
IBM-EPBL/IBM-Proj...
IBM Watson IoT Platform
angalaparameshwaria@gmail.com
ID: rvp7mx
Your boards
Public boards
Create New Board
RISK AND SECURITY OVERVIEW
4 Cards
Owned by you
USAGE OVERVIEW
3 Cards
Owned by you
Boards shared with you
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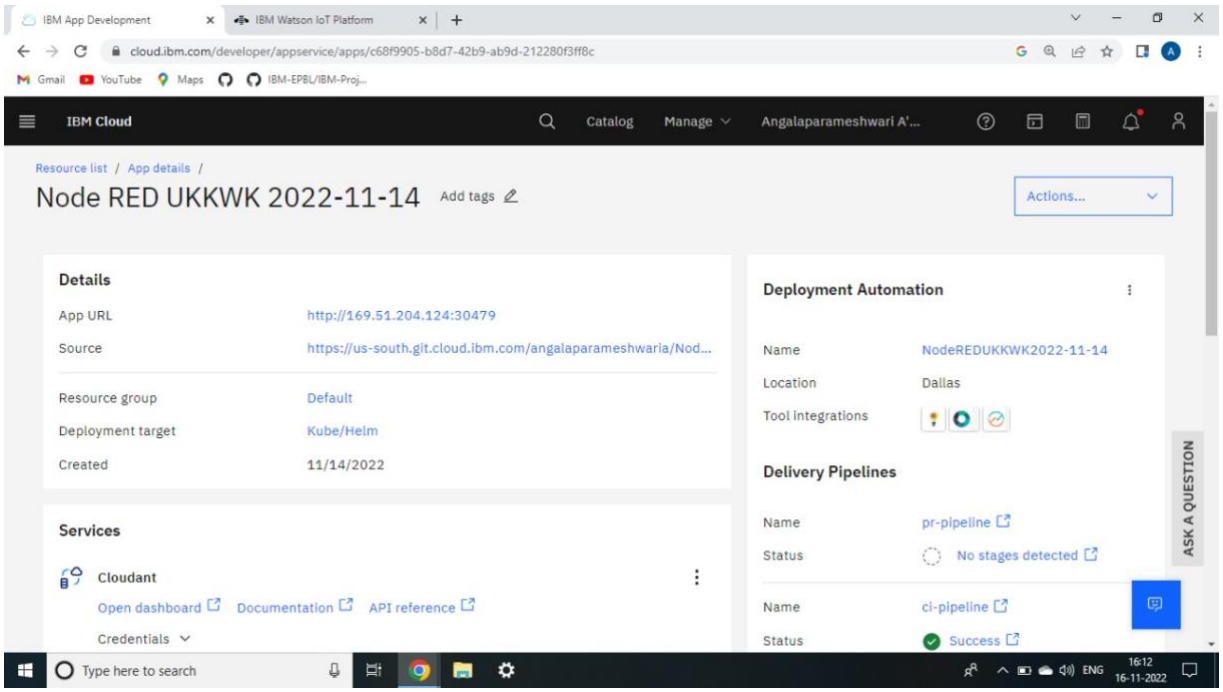
IBM App Development
IBM Watson IoT Platform
cloud.ibm.com/developer/appservice/apps/c68f9905-b8d7-42b9-ab9d-212280f3ff8c
Gmail
YouTube
Maps
IBM-EPBL/IBM-Proj...
IBM Cloud
Catalog
Manage
Angalaparameshwari A'...
Resource list / App details /
Node RED UKKWK 2022-11-14
Add tags
Actions...
Details
App URL
http://169.51.204.124:30479
Source
https://us-south.git.cloud.ibm.com/angalaparameshwaria/Nod...
Resource group
Default
Deployment target
Kube/Helm
Created
11/14/2022
Services
Cloudant
Open dashboard
Documentation
API reference
Credentials
Deployment Automation
Name
NodeREDUKKWK2022-11-14
Location
Dallas
Tool Integrations
Delivery Pipelines
Name
pr-pipeline
Status
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Name
ci-pipeline
Status
Success
ASK A QUESTION
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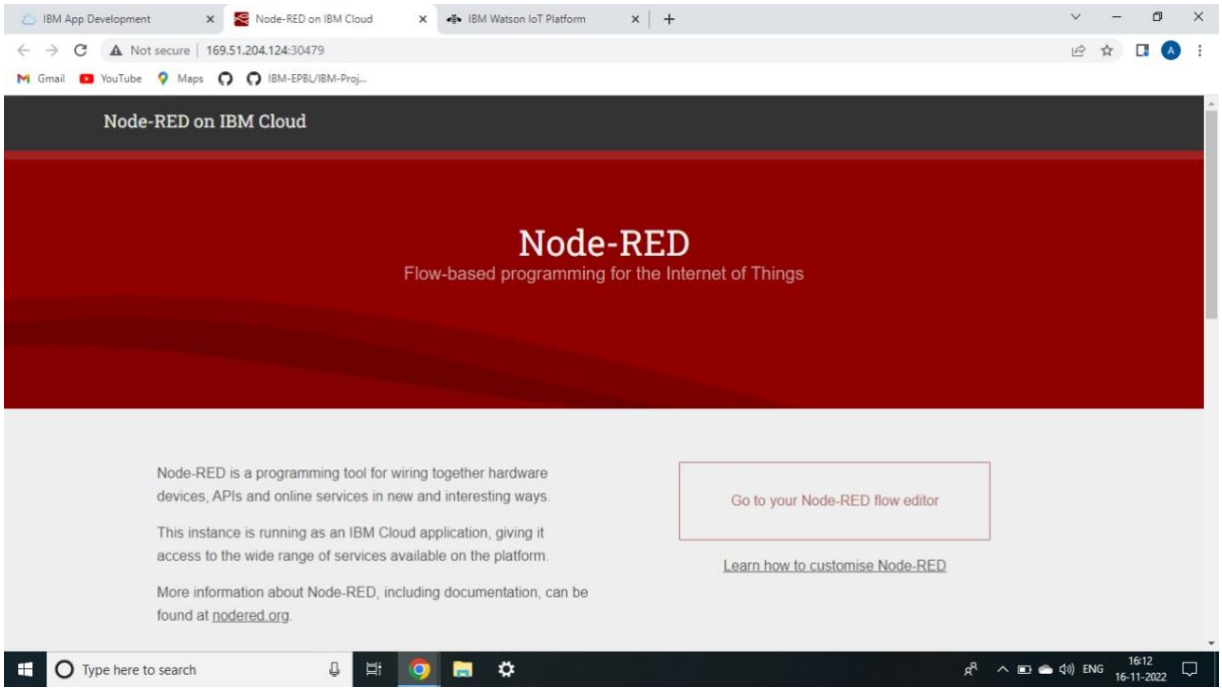
IBM App Development
Node-RED on IBM Cloud
IBM Watson IoT Platform
Not secure | 169.51.204.124:30479
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Node-RED on IBM Cloud
Node-RED
Flow-based programming for the Internet of Things
Node-RED is a programming tool for wiring together hardware devices, APIs and online services in new and interesting ways.
This instance is running as an IBM Cloud application, giving it access to the wide range of services available on the platform.
More information about Node-RED, including documentation, can be found at nodered.org.
Go to your Node-RED flow editor
Learn how to customise Node-RED
Type here to search
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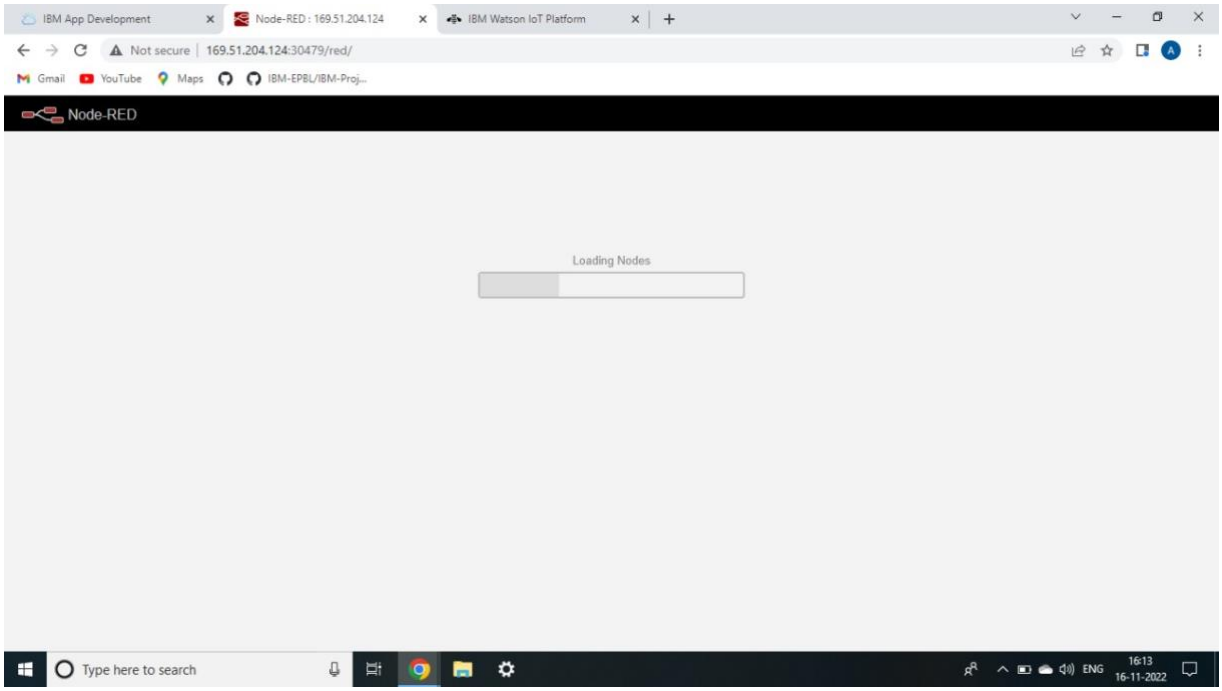
IBM App Development
Node-RED : 169.51.204.124
IBM Watson IoT Platform
Not secure | 169.51.204.124:30479/red/
Gmail
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Maps
IBM-EPBL/IBM-Proj...
Node-RED
Loading Nodes
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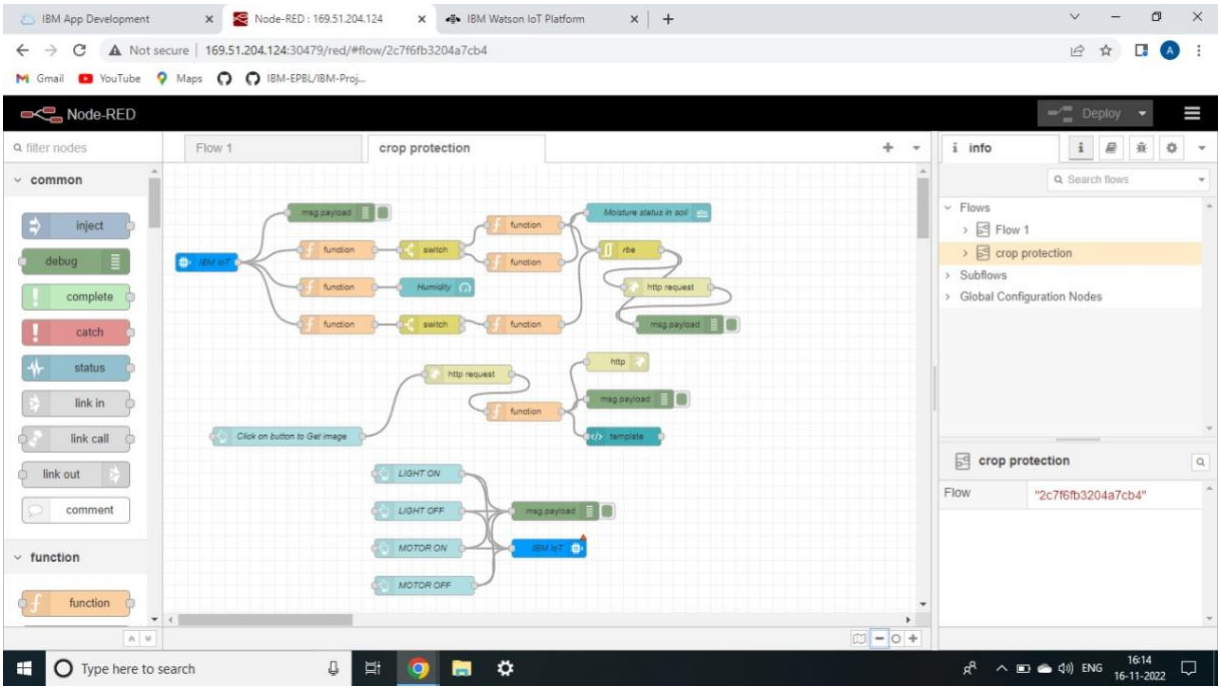
IBM App Development
Node-RED : 169.51.204.124
IBM Watson IoT Platform
Not secure | 169.51.204.124:30479/red/#flow/2c7f6fb3204a7cb4
Node-RED
Deploy
filter nodes
Flow 1
crop protection
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
info
Search flows
Flows
Flow 1
crop protection
Subflows
Global Configuration Nodes
crop protection
Flow
"2c7f6fb3204a7cb4"
msg.payload
function
switch
Moisture status in soil
rbe
Humidity
http request
http
template
Click on button to Get image
LIGHT ON
LIGHT OFF
MOTOR ON
MOTOR OFF
IBM IoT
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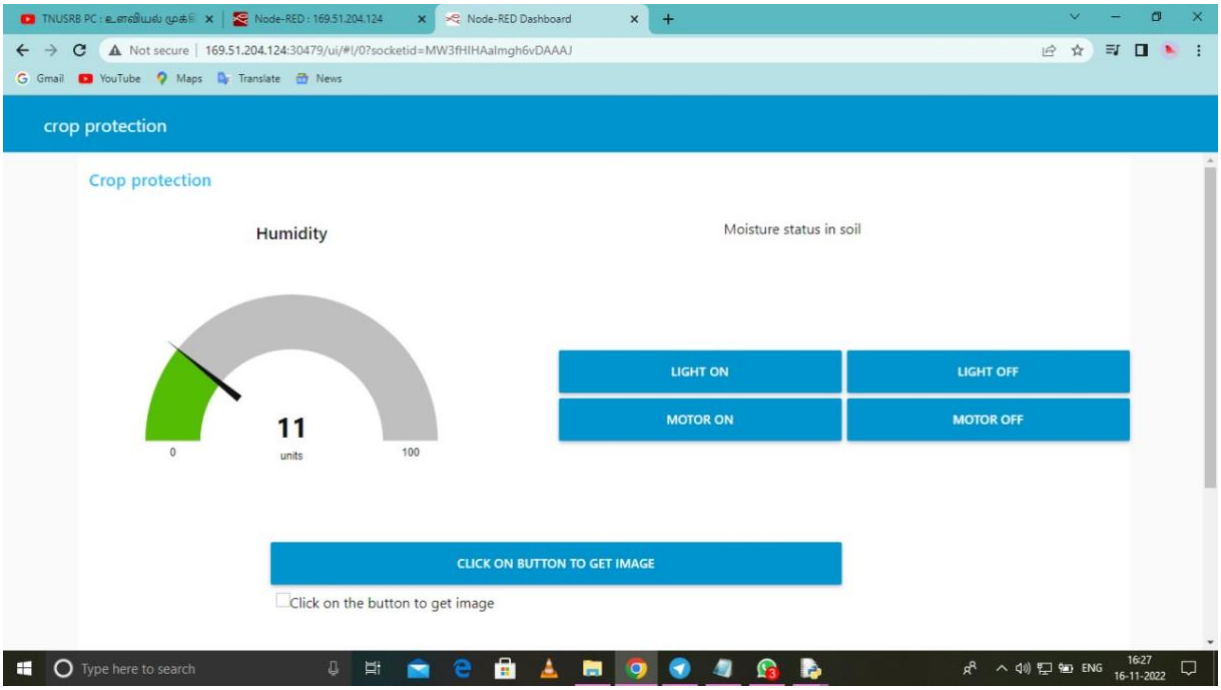
16-11-2022


Node-RED Dashboard
Not secure | 169.51.204.124:30479/ui/#!/0?socketid=MW3fHIHAalmgh6vDAAAJ
Gmail
YouTube
Maps
Translate
News
crop protection
Crop protection
Humidity
11
units
0
100
Moisture status in soil
LIGHT ON
LIGHT OFF
MOTOR ON
MOTOR OFF
CLICK ON BUTTON TO GET IMAGE
Click on the button to get image
Type here to search
ENG
16:27
16-11-2022

Conclusion:

Software (Create device in the IoT Watson platform, workflow for IoT scenarios using Node-Red) was successfully created.