

VEL TECH MULTI TECH DR.RANGARAJAN DR.SAKUNTHALA ENGINEERING COLLEGE

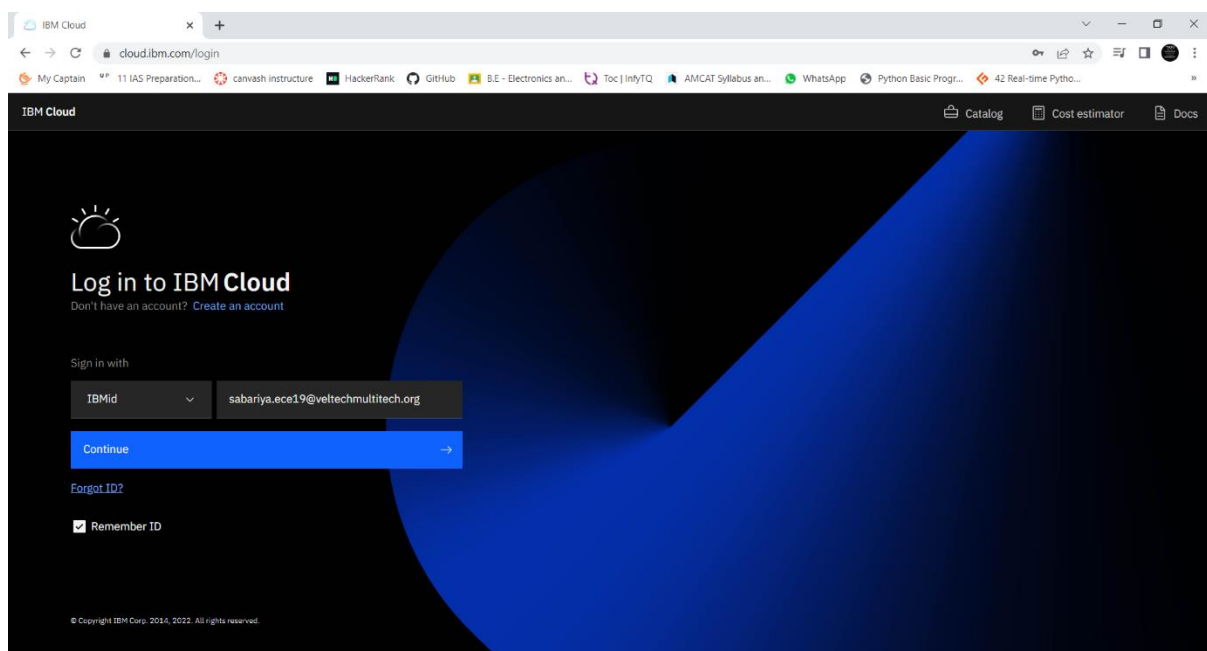
Department of Electronics and Communication Engineering

Smart Farmer-IOT Enabled Smart Farming

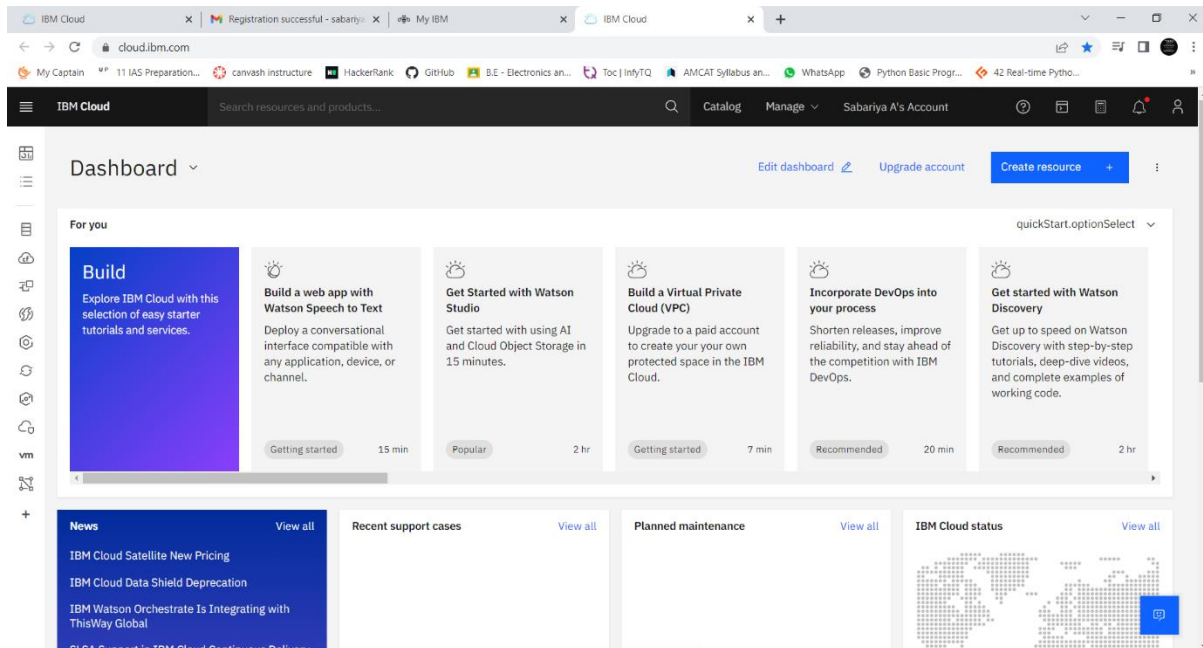
TEAM ID	PNT2022TMID22476
LEADER NAME	SABARIYA A
TEAM MEMBER NAME	GAYATHRI M S PRIYADHARSHINI A PONSHEEBA M
MENTOR NAME	KALPANA

CREATING NODE RED SERVICE :

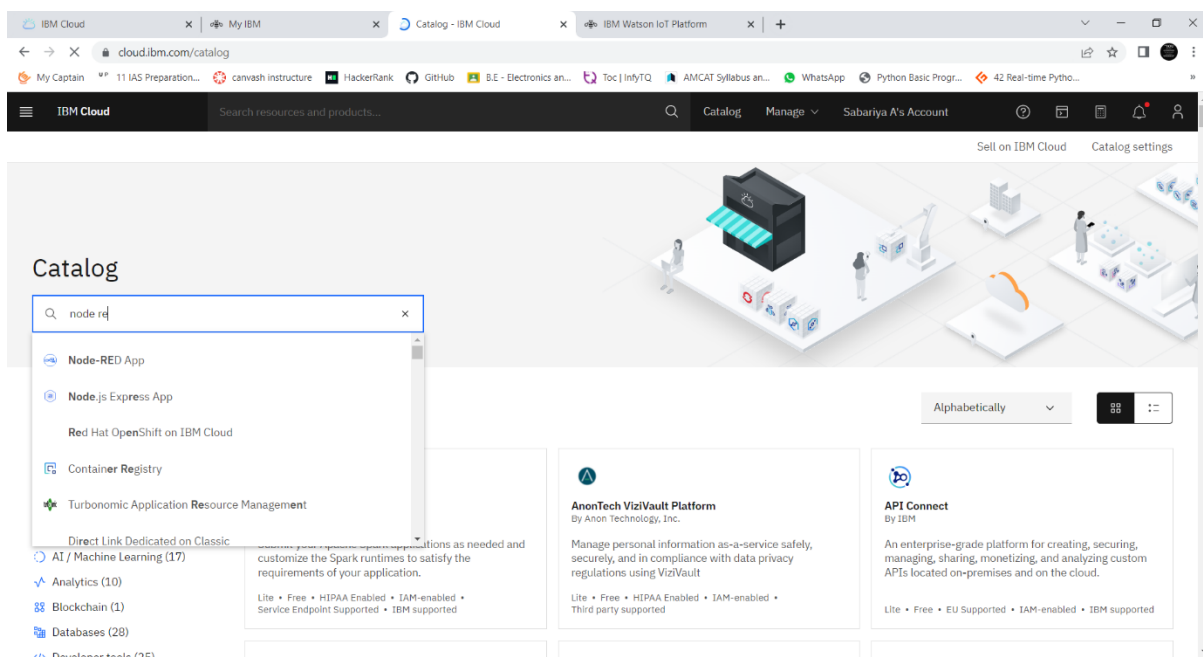
Login into the ibm cloud account:



Dashboard of IBM Cloud will get opened :=



Go to catalog and search for Node red app;



This page will be open then create a new one :

The screenshot shows the 'Create app' page for Node-RED on the IBM Cloud developer portal. The browser's address bar shows the URL: `cloud.ibm.com/developer/appservice/create-app?starterKit=59c3d5bd-4d31-3611-897a-f94eea80dc9f&defaultLanguage=undefined`. The page has a dark header with the IBM Cloud logo and a search bar. Below the header, there's a navigation bar with 'Catalog' and 'Create app' tabs. The main content area is titled 'Node-RED' and has two sub-tabs: 'About' and 'Create'. The 'Create' tab is active, showing 'App details'. Under 'App details', there's a form with the following fields: 'App name' (pre-filled with 'Node RED YCNRW 2022-11-12'), 'Resource group' (set to 'Default'), 'Tags' (with examples 'env:dev, version-1'), and 'Platform' (set to 'Node.js'). A 'Show all' button is at the bottom right of the form.

The screenshot shows the configuration step of the 'Create app' process for Node-RED. The browser's address bar shows the URL: `cloud.ibm.com/developer/appservice/apps/dca6c51d-758c-461c-aa60-82006f4e61a7`. The page has a dark header with the IBM Cloud logo and a search bar. Below the header, there's a navigation bar with 'Catalog' and 'Manage' tabs. The main content area is titled 'Node-RED' and has two sub-tabs: 'About' and 'Create'. The 'Create' tab is active, showing 'App details'. Under 'App details', there's a form with the following fields: 'IBM Cloud API key' (with a 'Now' button), 'Number of instances' (set to '1'), 'Memory allocation per instance' (set to '256'), 'Region' (set to 'Sydney'), 'Organization' (set to 'Veltech Multitech'), 'Space' (set to '1'), 'Host' (pre-filled with 'node-red-ycnrw-2022-11-12'), and 'Domain' (set to 'au-syd.mybluemix.net'). A 'Cancel' button and a 'Next' button are at the bottom left of the form. A 'Show all' button is at the bottom right of the form.

History x IBM App Development x IBM Cloud Account x IBM Watson IoT Platform x IBM App Development x Catalog - IBM Cloud x New Tab x

cloud.ibm.com/developer/appservice/apps/dca6c51d-758c-461c-aa60-820064e61a7

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Resource list / App details /

Node RED YCNRW 2022-11-12

Select the deployment target Configure the DevOps toolchain

Configure the DevOps toolchain

Give your toolchain a name and select the region to create your toolchain in.

DevOps toolchain name

NodeREDYCNRW2022-11-12

Accept the default name, or enter a value up to 100 characters.

Region

Dallas

Back Create

Getting started with apps

Step 2. Configure the DevOps toolchain

The DevOps toolchain includes a Delivery Pipeline tool where you can check the deployment status, start builds, manage deployment, and view logs and history.

1. Provide a name for your toolchain.
2. Select the region where your toolchain is created.
3. Select the resource group that has access to your new toolchain. [Learn more.](#)
4. After you're finished with your selections, click **Create**.

ASK A QUESTION

Wait until Ci- pipeline get successfully installed :

History x IBM App Development x IBM Watson IoT Platform x (15) YouTube x

cloud.ibm.com/developer/appservice/apps/dca6c51d-758c-461c-aa60-820064e61a7

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Resource list / App details /

Node RED YCNRW 2022-11-12

Add tags Actions...

Details

App URL	https://node-red-ycnrw-2022-11-12.au-syd.mybluemix.net
Source	https://us-south.git.cloud.ibm.com/sabariya.ece19/NodeREDY...
Resource group	Default
Deployment target	Node RED YCNRW 2022-11-12
Created	11/12/2022

Services

Cloudant

[Open dashboard](#) [Documentation](#) [API reference](#)

Credentials

Connect existing services + Create service +

Deployment Automation

Name	NodeREDYCNRW2022-11-12
Location	Dallas
Tool integrations	

Delivery Pipelines

Name	ci-pipeline
Status	Success
Name	pr-pipeline
Status	No stages detected

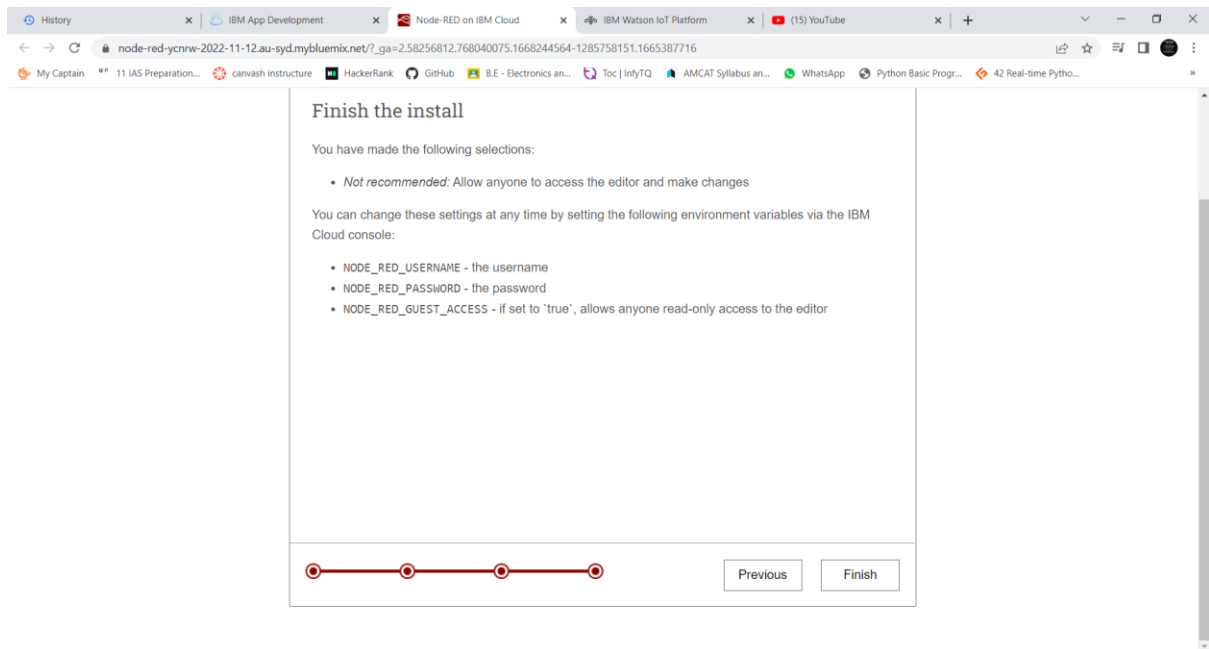
Getting started quickly

Configuring your app

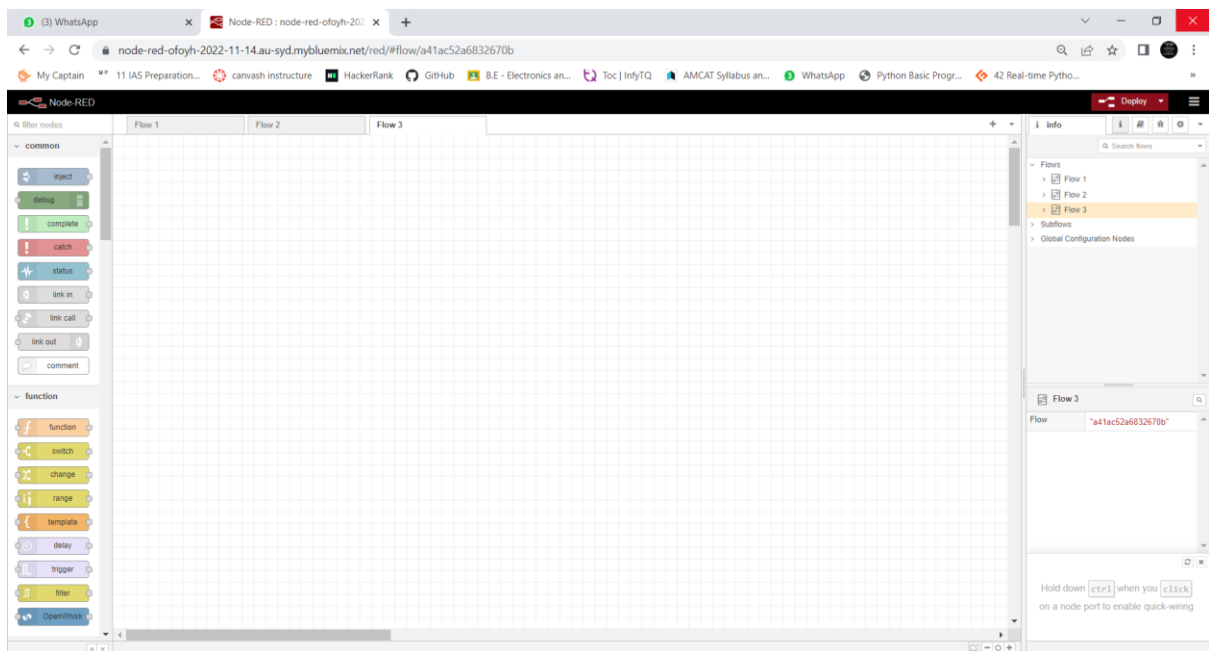
To connect services and DevOps toolchains to your app:

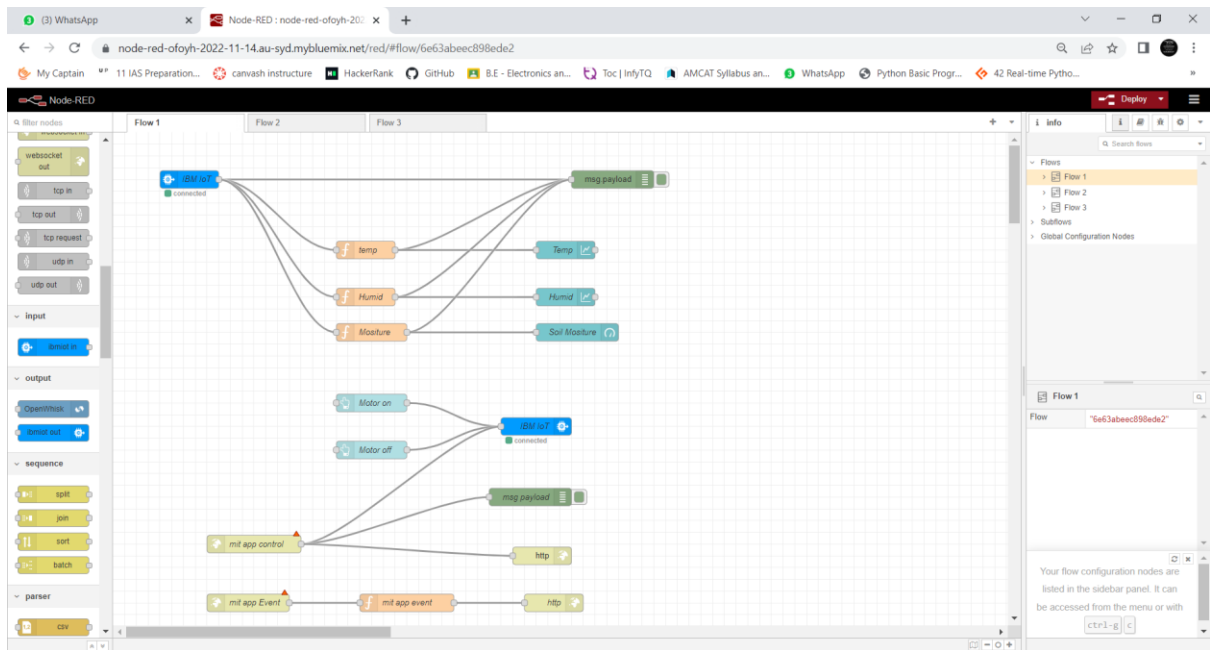
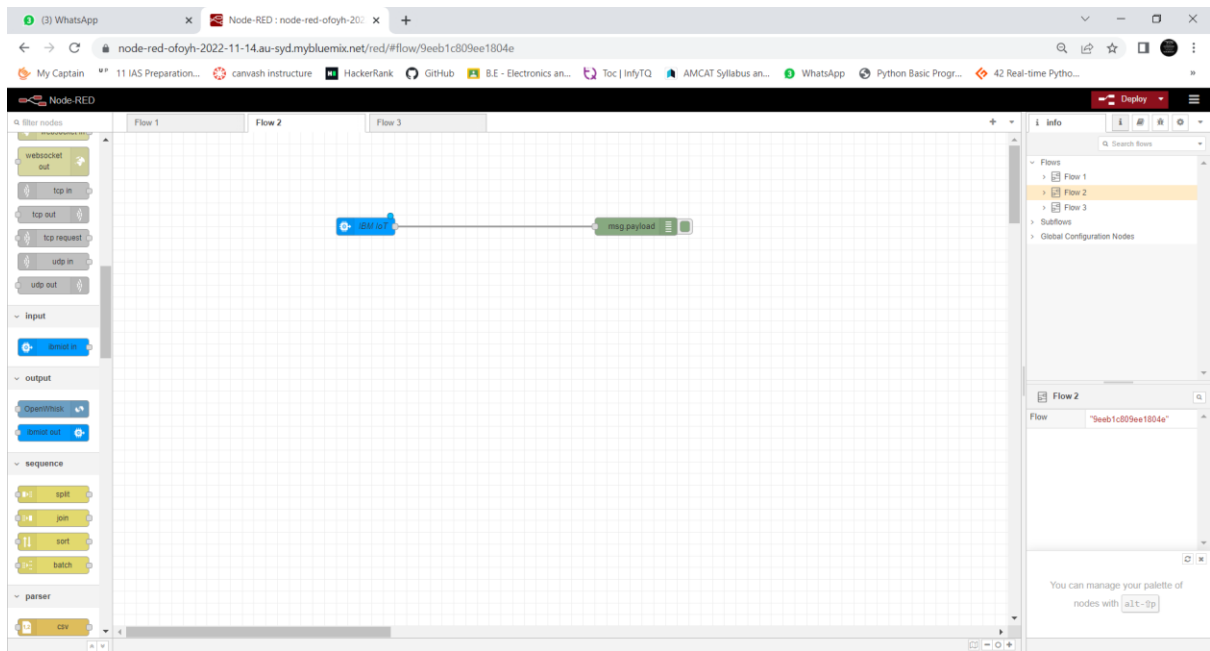
1. Use the **Services** card to connect a service to your app. Select an existing service instance, or create a new one. [Learn more.](#)
2. If you want to view the code before your app is deployed, click **Download code** to obtain the .zip file.
3. Click **Deploy your app** in the **Deployment Automation** card to select the deployment target and configure the Continuous Delivery service. The deployment begins automatically.
4. After the deployment begins, you can view the status of the deployment, modify your app, view your repo, or view the app's URL.

ASK A QUESTION

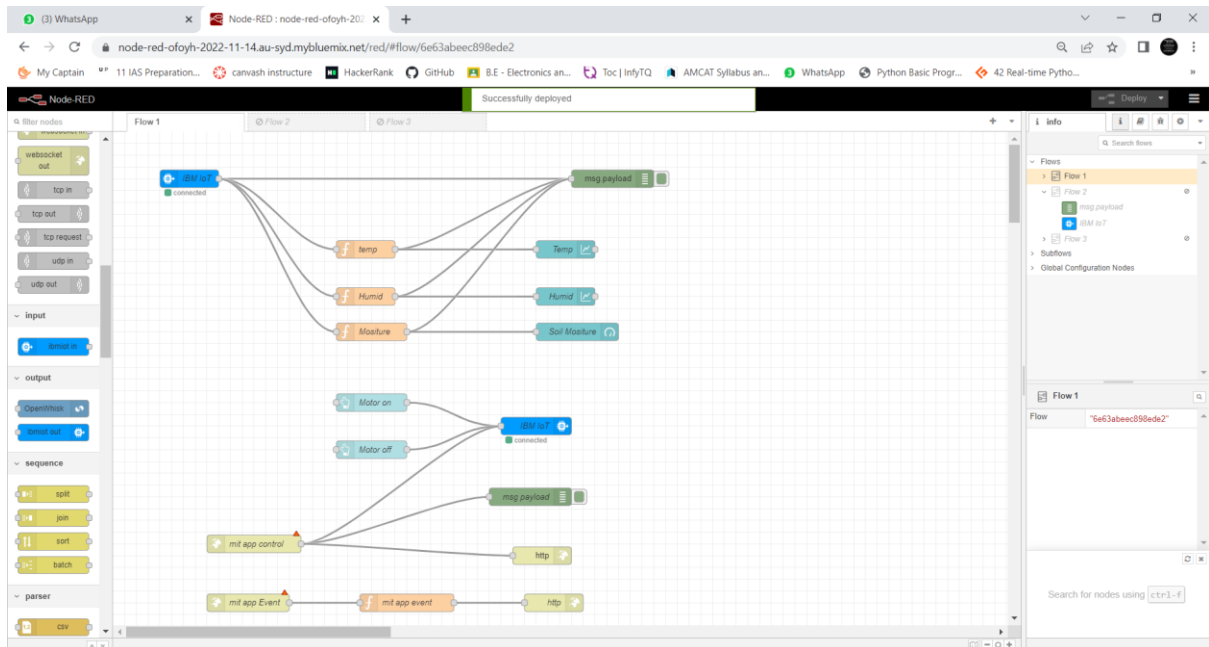


The flow diagram will be opened where we can create our own needed flow for our project :





After creating a flow ,deploy it for connection if it was deployed ,then it shows deployed successfully were we can see the input shows connected after that connect it with IOT WATSON PLATFORM device for further stimulation :



Connecting to Iot Watson platform device :

The screenshot shows the IBM Watson IoT Platform dashboard. The main table lists devices, with one device selected (Device ID: 1234, Status: Disconnected, Device Type: abcd). The 'Device Type: 1234' modal is open, showing the 'Events' tab. The 'Event type name' is 'eventflow'. The 'Schedule' is set to 'Every Minute'. The 'Payload' is a JSON object with random values for 'temp', 'humid', and 'moisture'.

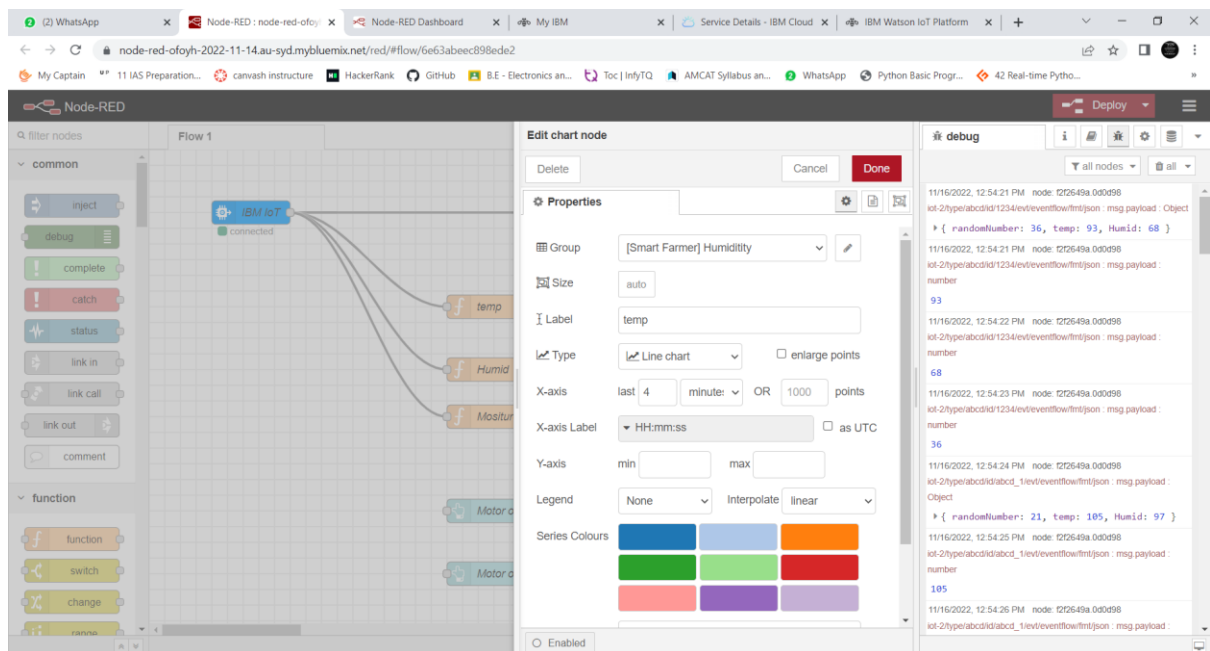
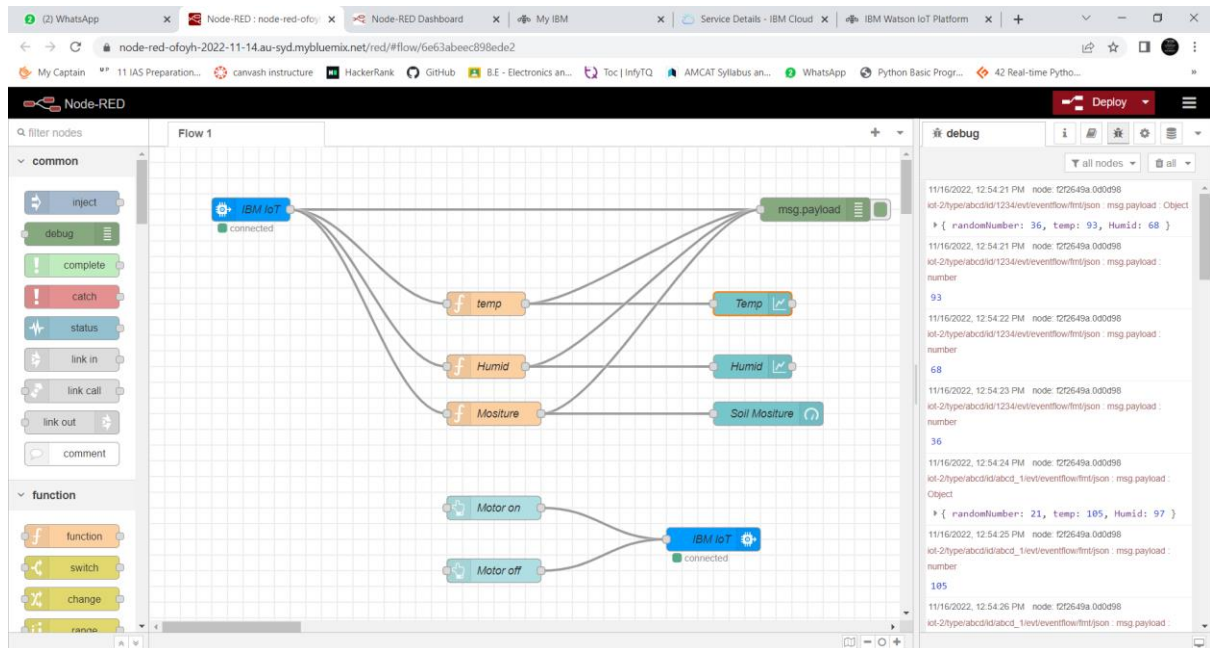
Device ID	Status	Device Type	Class ID	Date
1234	Disconnected	abcd	Device	Nov 15, 2022 10:34 PM

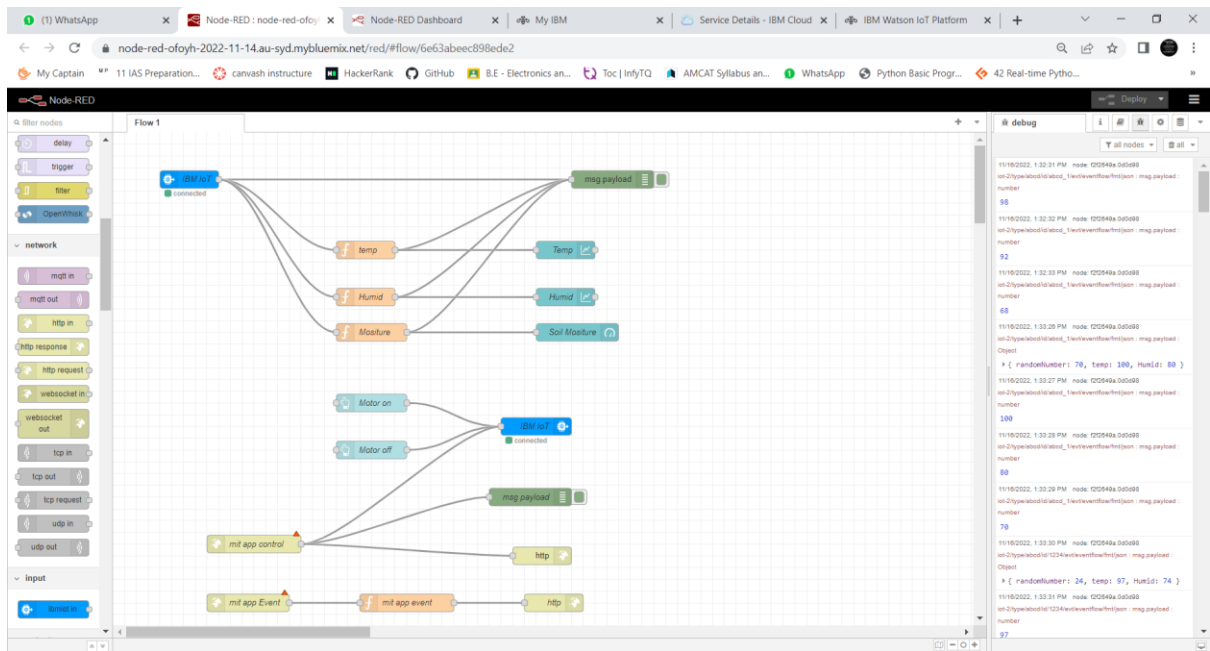
```

{
  "temp": "random(0, 100)",
  "humid": "random(90, 110)",
  "moisture": "random(60, 100)"
}

```

After simulation it shows the temp , humid and moisture value :





Final data of Temperature , Humidity and Soil moisture :

