

## SPRINT-2

<b>Date</b>	<b>7th November 2022</b>
<b>Team ID</b>	PNT2022TMID00802
<b>Project Name</b>	Personal Assistance for Seniors Who Are Self Reliant

### TASK :-

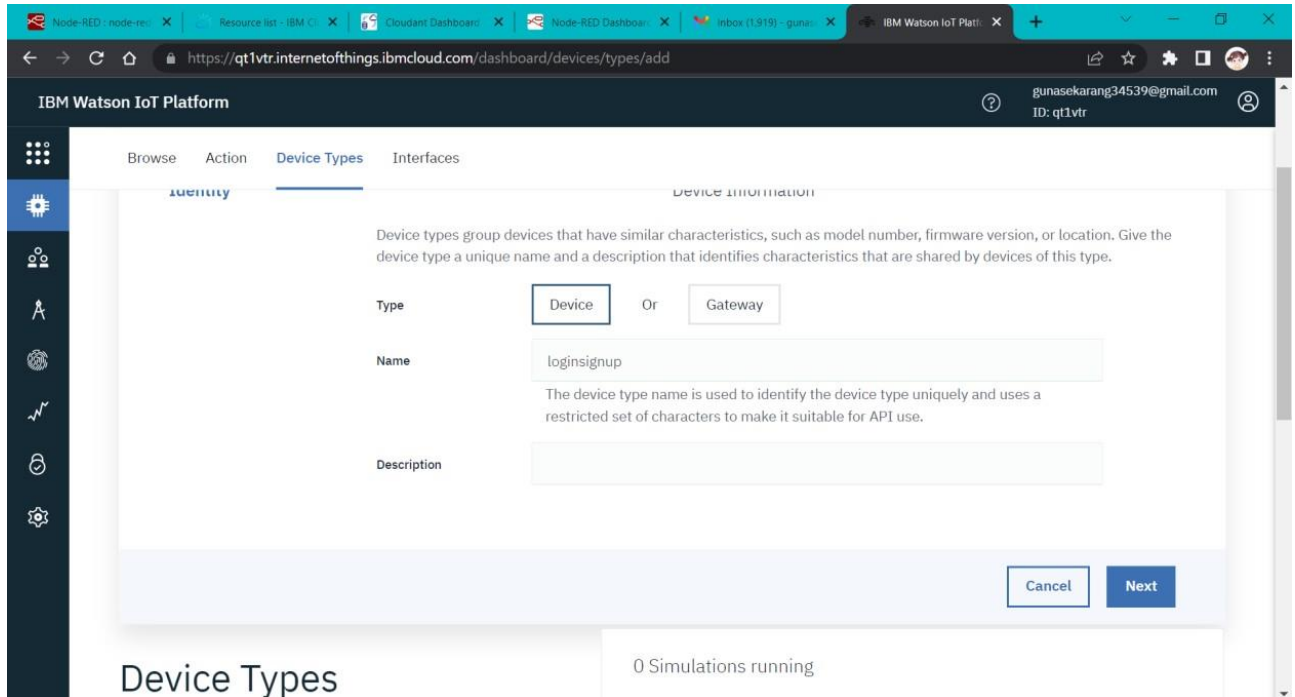
To create a device in the IOT Watson Platform, Workflow for IOT scenarios using Node-RED.

### DESCRIPTION: -

- ❖ We have used **IoT Watson platform** for the creation of IoT device.
- ❖ The web application is built using **Node-RED** for collecting the medicine details from the users.
- ❖ We have used the **Cloudant DB** for storing the collected data.
- ❖ The web application will send the medicine details to the created IoT device.
- ❖ The IoT device on receiving the details, it make use of TTS to remind the user about the medicine.
- ❖ By using **TTS** (Text to Speech) service from the IBM platform, the medicinal information will be notified to the users in the form of voice commands.
- ❖ Following are the screenshots that demonstrate the device creation and workflow of the IoT scenarios.

# 1) IBM WATSON – DEVICE CREATION

## DEVICE TYPE CREATION:



The screenshot shows the 'Add Device Type' form in the IBM Watson IoT Platform. The browser address bar indicates the URL: <https://qt1vtr.internetofthings.ibmcloud.com/dashboard/devices/types/add>. The user is logged in as 'gunasekarang34539@gmail.com' with ID 'qt1vtr'. The form is titled 'Device Information' and includes a description: 'Device types group devices that have similar characteristics, such as model number, firmware version, or location. Give the device type a unique name and a description that identifies characteristics that are shared by devices of this type.' The form has three main fields: 'Type' (with 'Device' and 'Gateway' radio buttons), 'Name' (with the value 'loginsignup'), and 'Description' (empty). Below the form are 'Cancel' and 'Next' buttons. The page footer shows 'Device Types' and '0 Simulations running'.

IBM Watson IoT Platform

gunasekarang34539@gmail.com  
ID: qt1vtr

Browse Action Device Types Interfaces

Device Information

Device types group devices that have similar characteristics, such as model number, firmware version, or location. Give the device type a unique name and a description that identifies characteristics that are shared by devices of this type.

Type ☒ Device Or ☐ Gateway

Name loginsignup

The device type name is used to identify the device type uniquely and uses a restricted set of characters to make it suitable for API use.

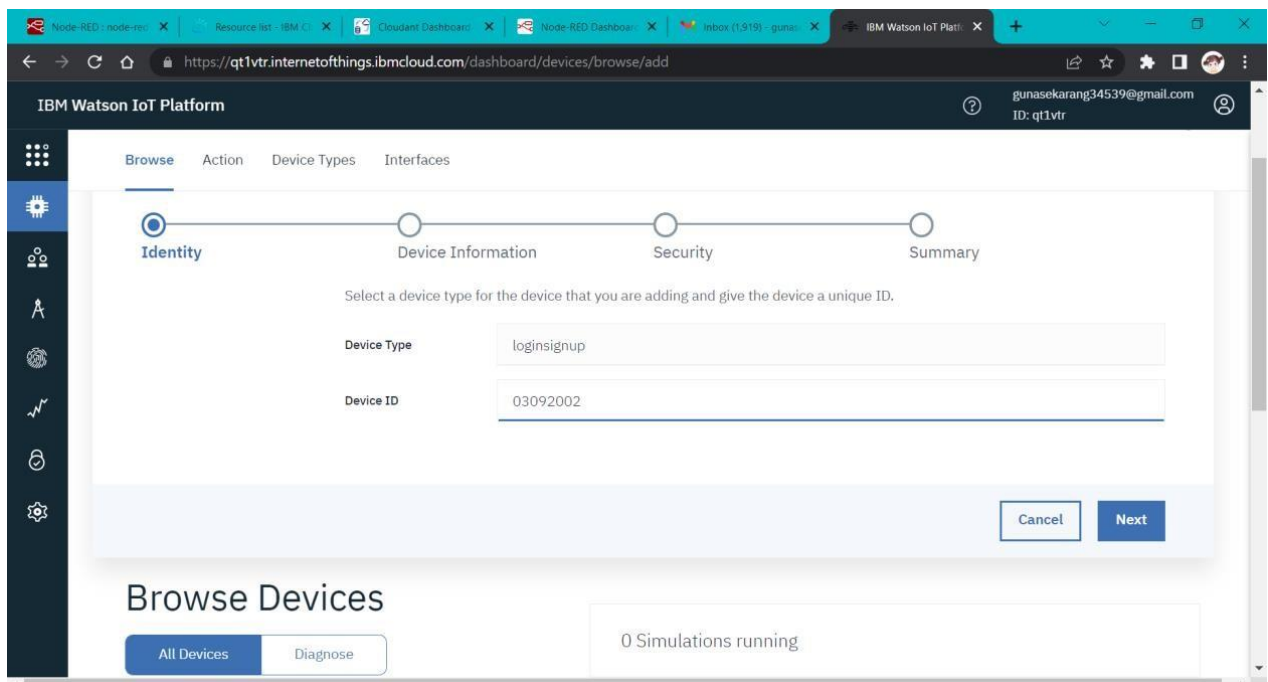
Description

Cancel Next

Device Types

0 Simulations running

## DEVICE CREATION:



The screenshot shows the 'Add Device' form in the IBM Watson IoT Platform. The browser address bar indicates the URL: <https://qt1vtr.internetofthings.ibmcloud.com/dashboard/devices/browse/add>. The user is logged in as 'gunasekarang34539@gmail.com' with ID 'qt1vtr'. The form is titled 'Add Device' and includes a description: 'Select a device type for the device that you are adding and give the device a unique ID.' The form has two main fields: 'Device Type' (with the value 'loginsignup') and 'Device ID' (with the value '03092002'). Below the form are 'Cancel' and 'Next' buttons. The page footer shows 'Browse Devices' and '0 Simulations running'.

IBM Watson IoT Platform

gunasekarang34539@gmail.com  
ID: qt1vtr

Browse Action Device Types Interfaces

Add Device

Select a device type for the device that you are adding and give the device a unique ID.

Device Type loginsignup

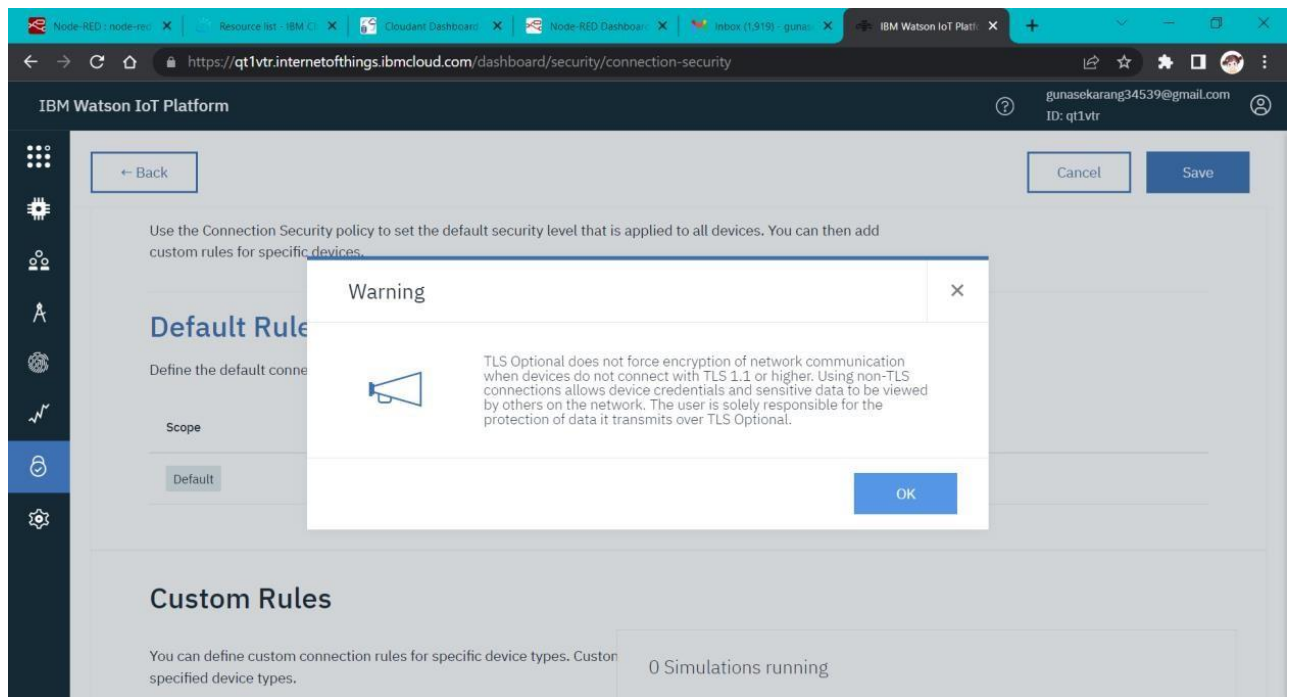
Device ID 03092002

Cancel Next

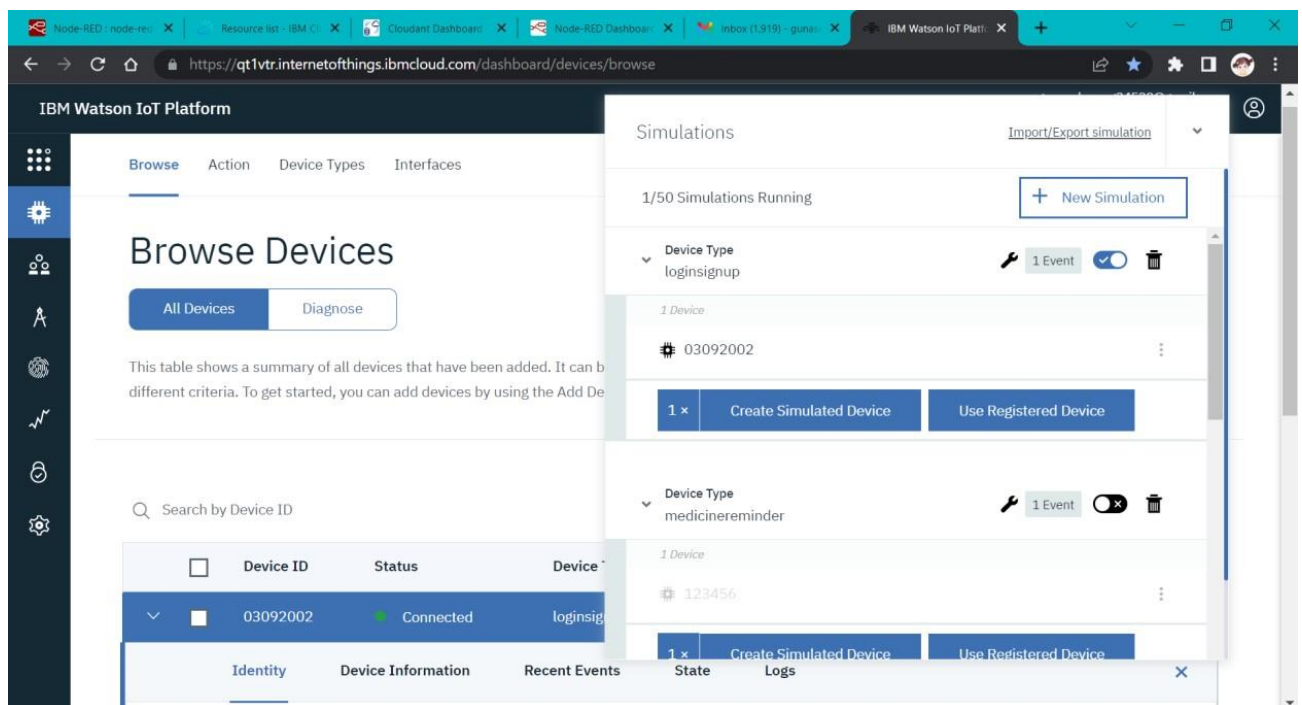
Browse Devices

0 Simulations running

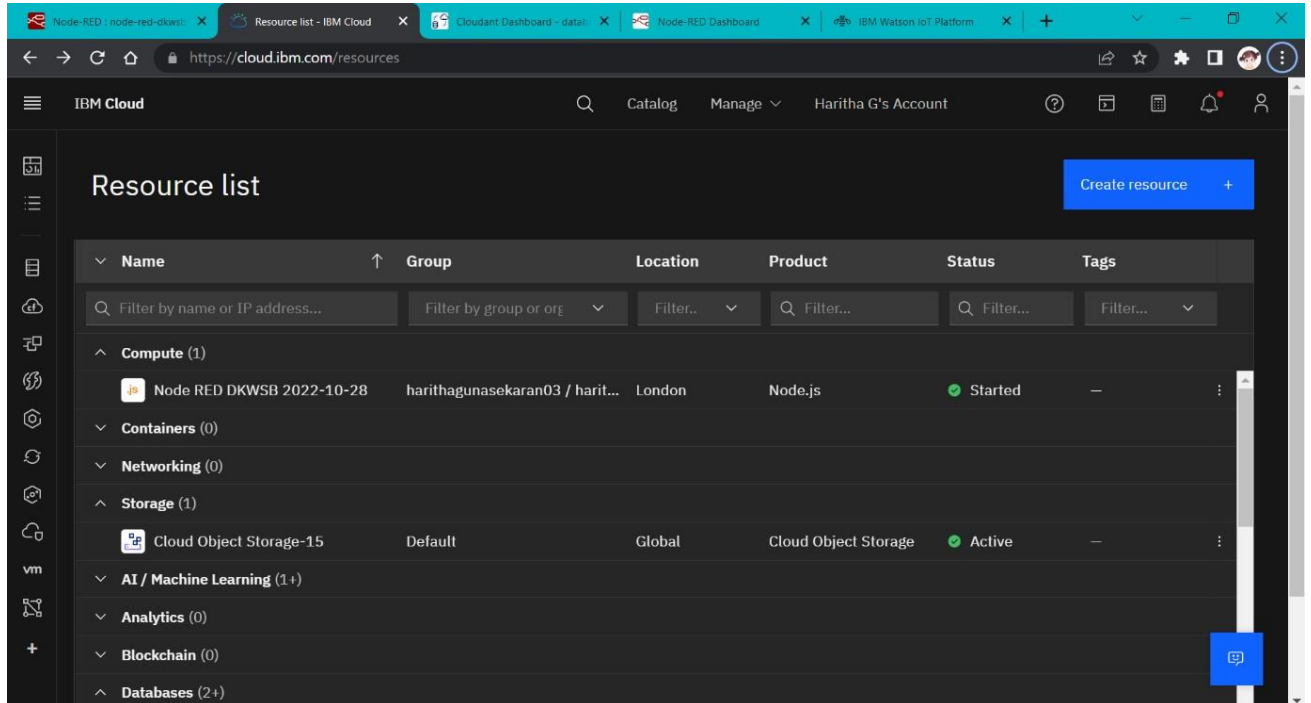
## CONFIGURE SECURITY POLICY:



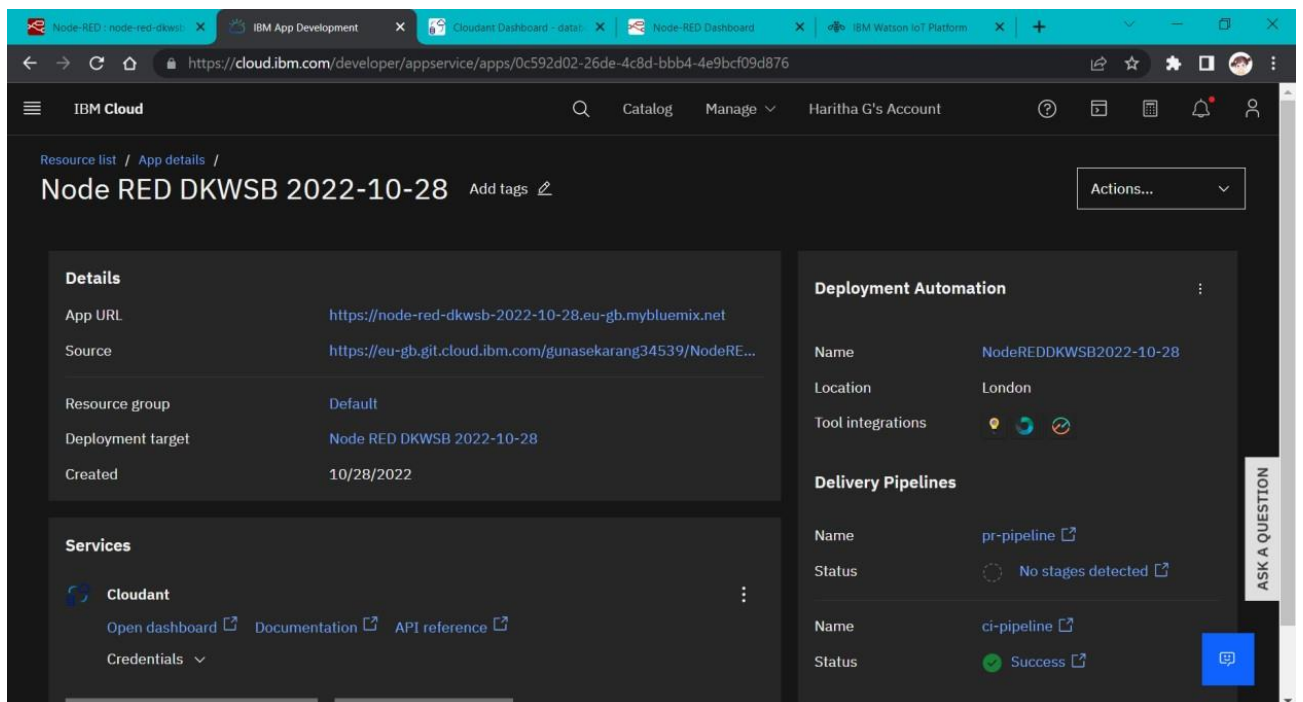
## SIMULATE IOT DEVICE:

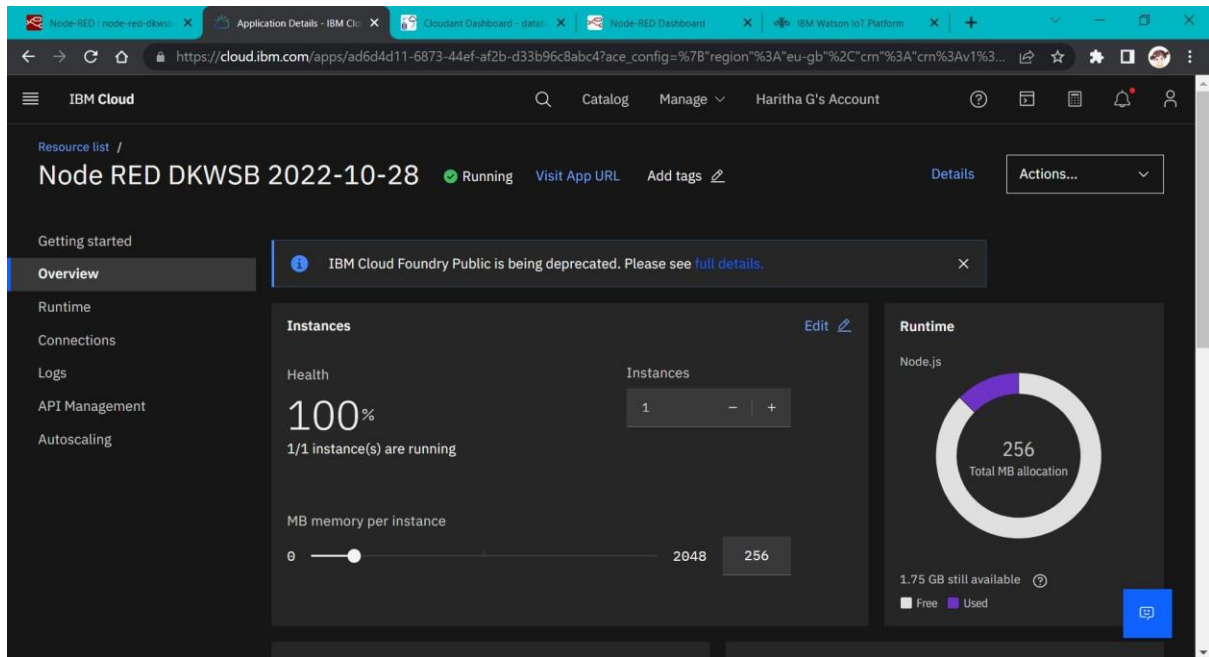


## 2) NODE-RED CREATION:

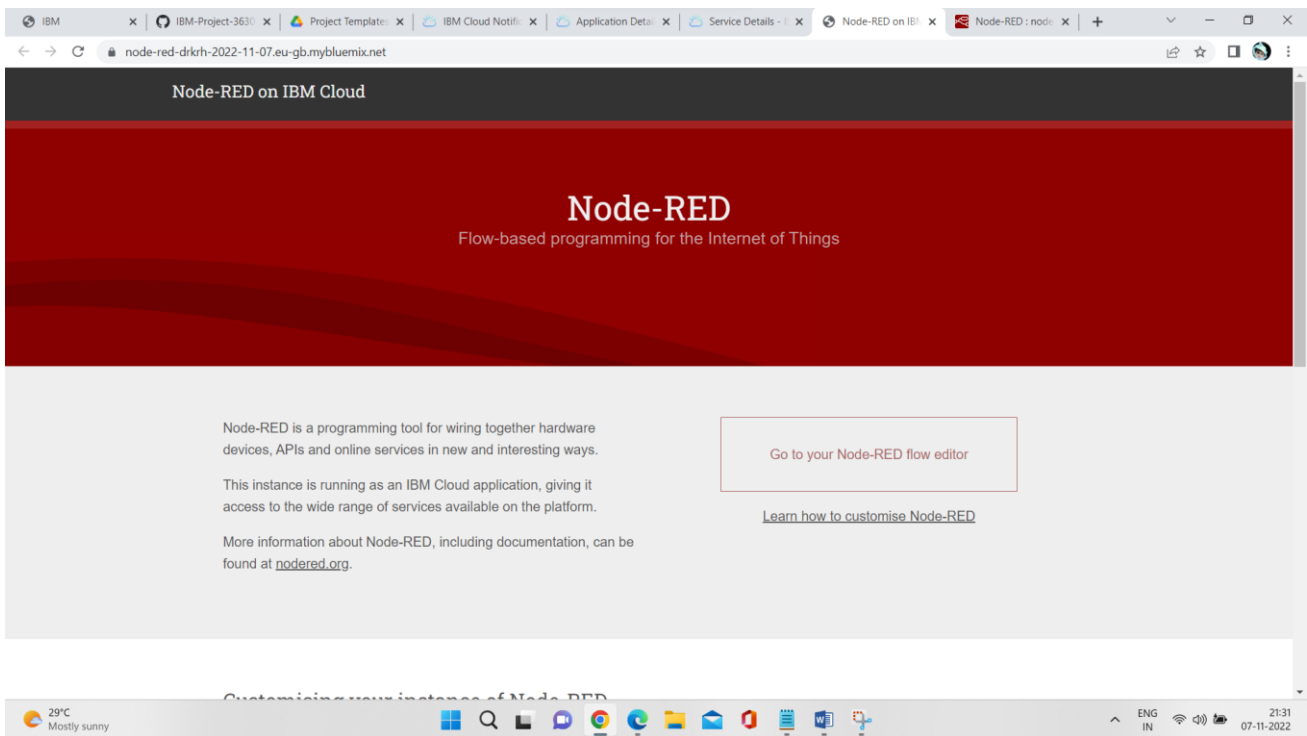


## DEPLOYING NODE-RED WEB APP:





## NODE-RED FLOW EDITOR:



Node-RED - node-red-dkwsb

Service Details - IBM Cloud

Cloudant Dashboard - datab

Node-RED Dashboard

IBM Watson IoT Platform

https://cloud.ibm.com/services/cloudantnosqldb/cm%3Av1%3Abluemix%3APublic%3ACloudantnosqldb%3Aeu-gb%3AAa%2F6bd34af74df...

←→↺🏠🔒🌐📖⚙️🗑️👤

IBM Cloud

🔍CatalogManage ▾Haritha G's Account🔧📅📊🔔👤

Resource list /

node-red-dkwsb-2022--cloudant-1666974514582

ActiveAdd tagsDetailsActions...

Manage

Service credentialsPlanConnections

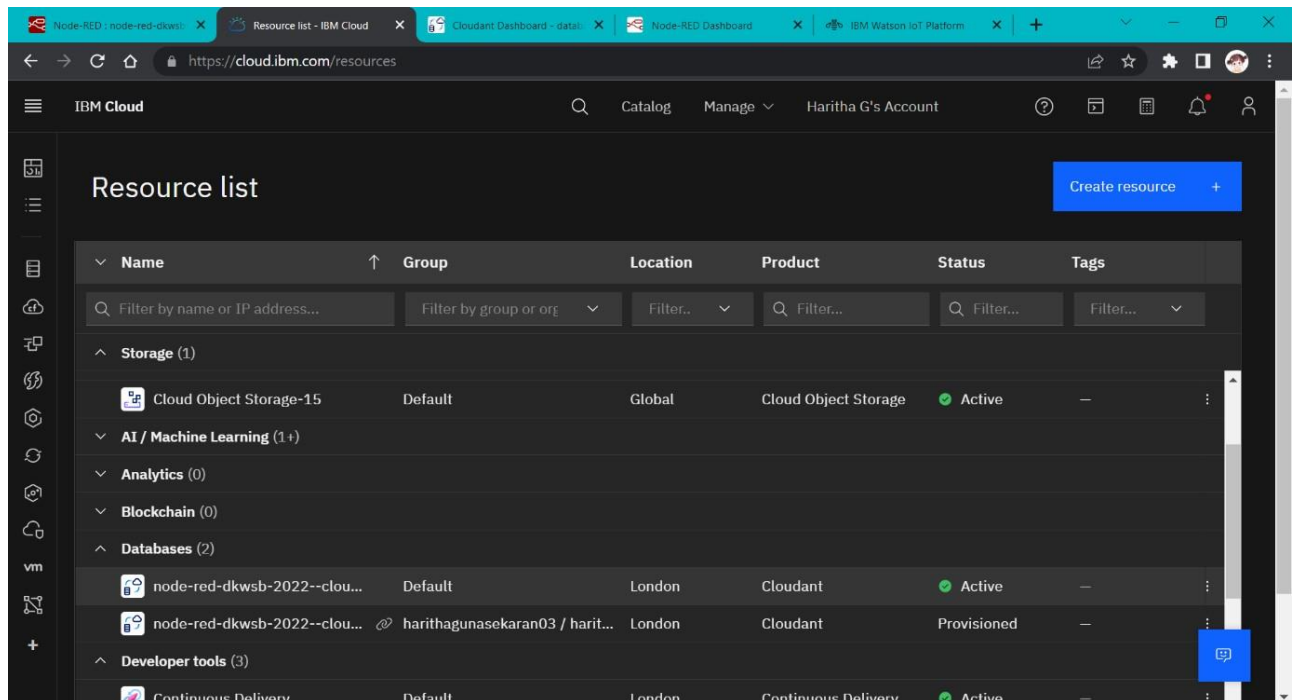
OverviewCapacityDocsLaunch Dashboard

Deployment details

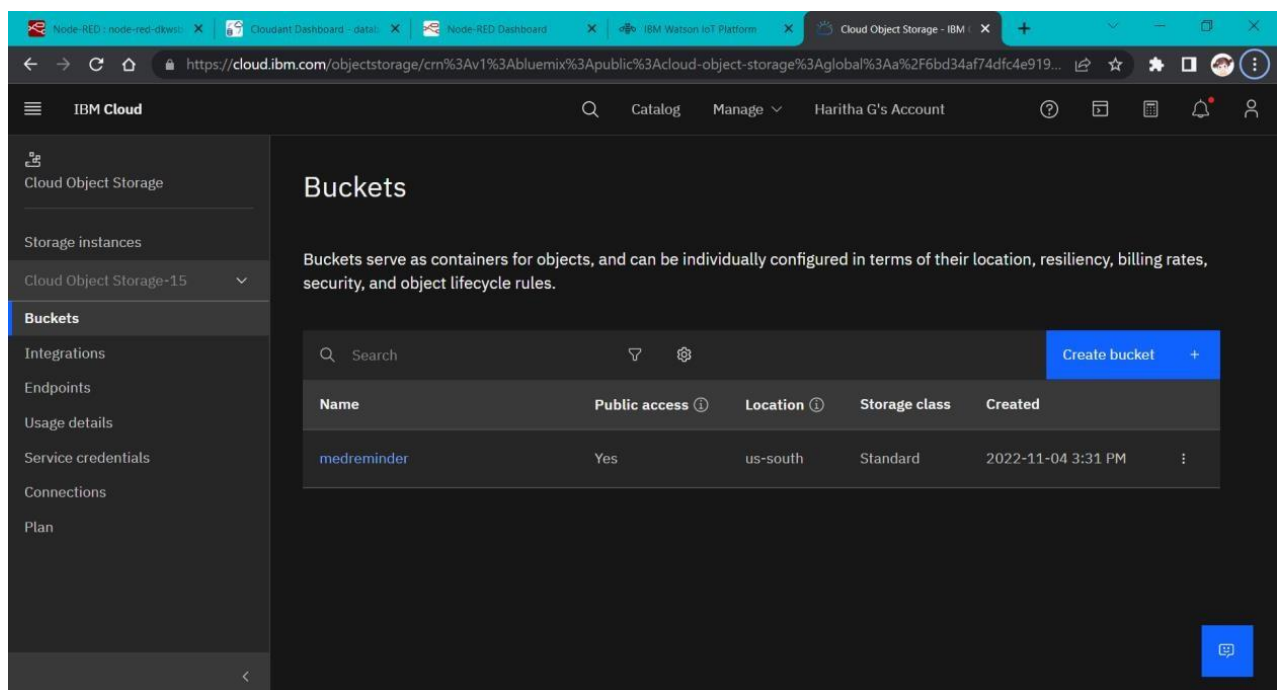
CRN	crn:v1:bluemix:public:cloudantnosqldb:eu-gb:a/6bd34af74dfc4e919b494a89d99a1279:2f422b8e-4c41-4348-b9fe-c1bb7cc9ef7c::
Location	London
External endpoint	<a href="https://e0ca5cfe-2984-4eb5-b604-dc654ceb3930-bluemix.cloudant.com">https://e0ca5cfe-2984-4eb5-b604-dc654ceb3930-bluemix.cloudant.com</a>
External endpoint (preferred)	<a href="https://e0ca5cfe-2984-4eb5-b604-dc654ceb3930-bluemix.cloudantnosqldb.appdomain.cloud">https://e0ca5cfe-2984-4eb5-b604-dc654ceb3930-bluemix.cloudantnosqldb.appdomain.cloud</a>
Authentication methods	<div>IBM Cloud IAMCloudant credentialsMigrate to IAM Only</div>



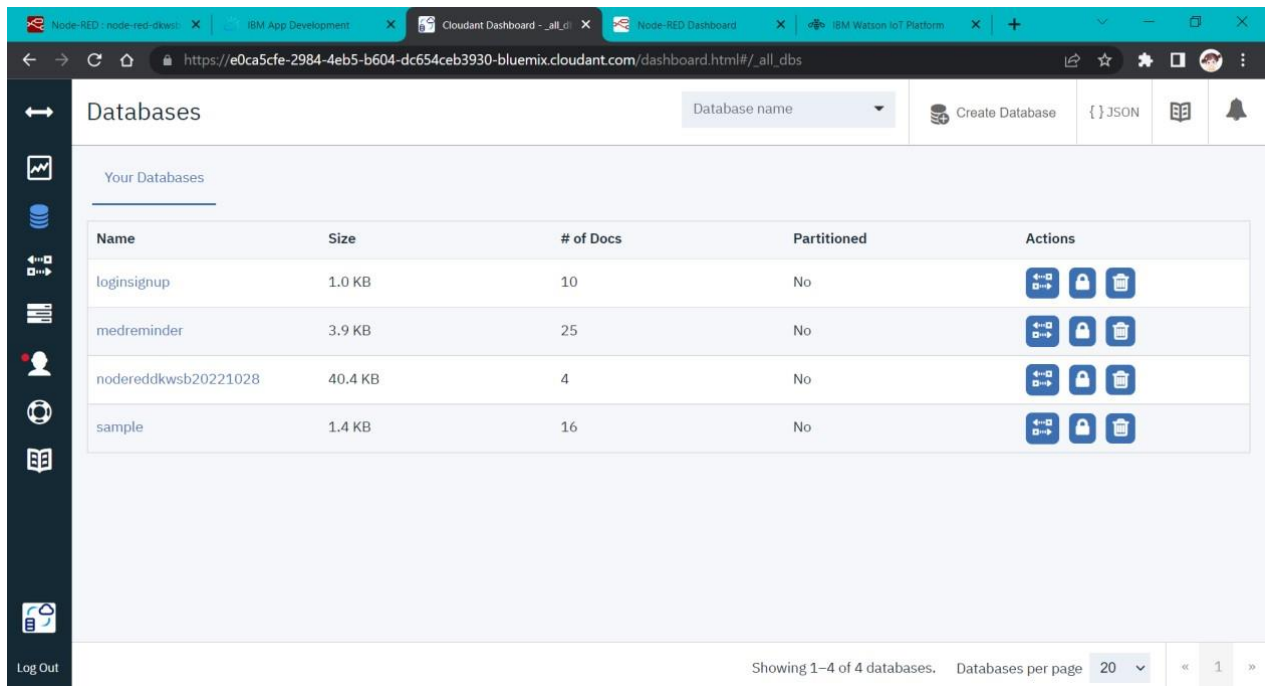
## BUCKET CREATION:















❖ Here we created an bucket in as cloud object storage for our project.



## 4) DATABASE CREATION:



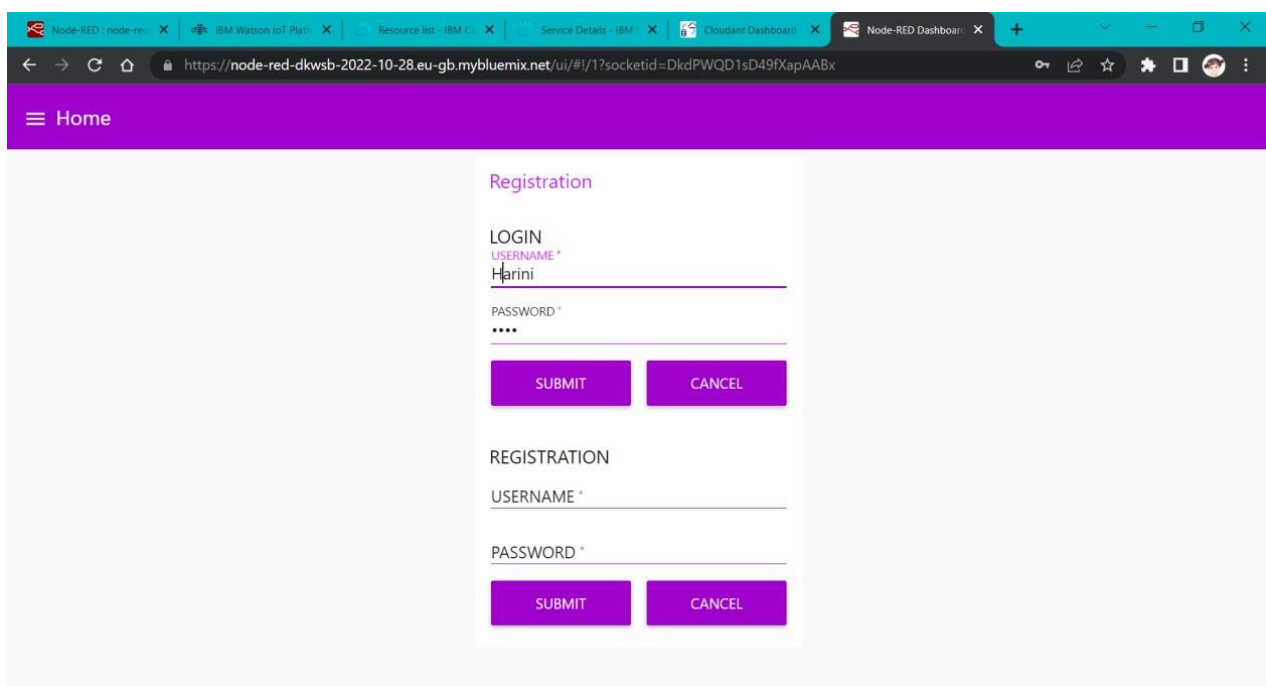
The screenshot shows the Cloudant Databases dashboard. The URL is [https://e0ca5cfe-2984-4eb5-b604-dc654ceb3930-bluemix.cloudant.com/dashboard.html#/all\\_dbs](https://e0ca5cfe-2984-4eb5-b604-dc654ceb3930-bluemix.cloudant.com/dashboard.html#/all_dbs). The dashboard displays a table of databases under the heading "Your Databases".

Name	Size	# of Docs	Partitioned	Actions
loginsignup	1.0 KB	10	No	  
medreminder	3.9 KB	25	No	  
nodereddkwsb20221028	40.4 KB	4	No	  
sample	1.4 KB	16	No	  

At the bottom, it says "Showing 1-4 of 4 databases. Databases per page 20".

## FINAL EXECUTION:

- ❖ When the user enter the login credentials, it get stored in db.
- ❖ After successfull login user get redirected to the home scren.



The screenshot shows the Node-RED dashboard with a purple header bar containing a "Home" link. The main content area displays two forms: "Registration" and "Login".

**Registration Form:**

- USERNAME \* (input field)
- PASSWORD \* (password field)
- SUBMIT button
- CANCEL button

**Login Form:**

- USERNAME \* (input field)
- PASSWORD \* (password field)
- SUBMIT button
- CANCEL button



❖ The data are getting coming in the IOT device platform.

The screenshot shows the IBM Watson IoT Platform dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A sidebar on the left contains various icons for navigation. The main content area displays a list of devices. One device, 'loginsignup', is selected, and its details are shown in a modal window. The modal has tabs for 'Identity', 'Device Information', 'Recent Events', 'State', and 'Logs'. The 'Recent Events' tab is active, showing a table of events. The table has columns for 'Event', 'Value', 'Format', and 'Last Received'. One event is listed: 'event\_1' with a value of '{"username":"harini","password":"12@"}' in json format, received 'a few seconds ago'. Below the modal, a list of other devices is visible, including '12345' (Disconnected, UltraSonDistance) and '123456' (Disconnected, medicin).

Event	Value	Format	Last Received
event_1	{"username":"harini","password":"12@"}	json	a few seconds ago

❖ Now, we can see the data are getting stored in DB.

The screenshot shows the Cloudant Dashboard. The top navigation bar includes 'Node-RED', 'IBM Watson IoT Platform', 'Resource list', 'Service Details', 'Cloudant Dashboard', and 'Node-RED Dashboard'. The main content area displays a JSON document stored in the database. The document is titled 'loginsignup' and has a key of '6999da3f69f9e3d0fb307bf60fc9f28b'. The document content is a JSON object with the following structure:

```
1 {
2   "_id": "6999da3f69f9e3d0fb307bf60fc9f28b",
3   "_rev": "1-dc21b1d2ad91369e8181ae4efe1a6680",
4   "payload": {
5     "user": {
6       "TYPE YOUR NAME": "Hartnt",
7       "ENTER PASSWORD": "122@"
8     }
9   },
10  "socketid": "C9K09UYaqzLwHESMAABz"
11 }
```

## RESULT:

At the end of the sprint 2, we created the software for our project and tested successfully...!