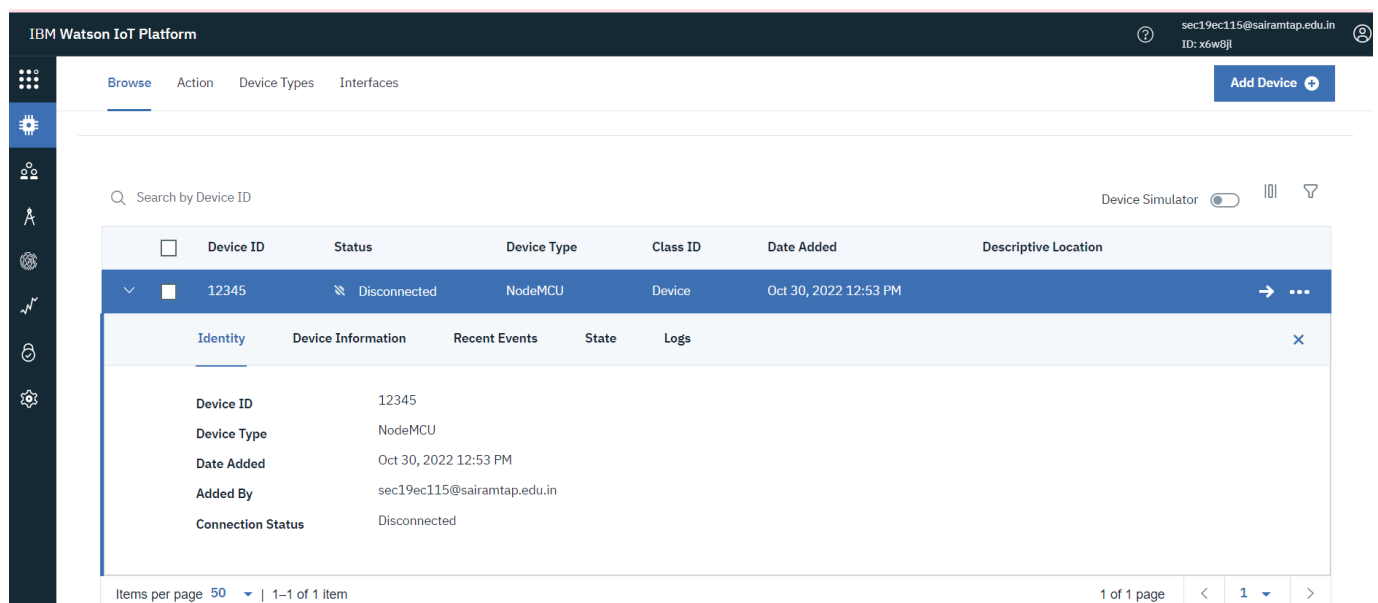


|              |  |
|--------------|--|
| Date         | 1 November 2022  |
| TEAM ID      | PNT2022TMID040676                                      |
| Project Name | IoT Based smart crop Protection system for agriculture |
| Maximum mark | 20 marks   |

# SPRINT 1 – CREATION AND CONFIGURATION OF IBM CLOUD SERVICES

## STEP – 1 : CREATING IBM WATSON PLATFORM AND IOT DEVICE



IBM Watson IoT Platform

sec19ec115@sairamtap.edu.in  
ID: x6w8jl

Browse Action Device Types Interfaces

Add Device +

Search by Device ID

Device Simulator

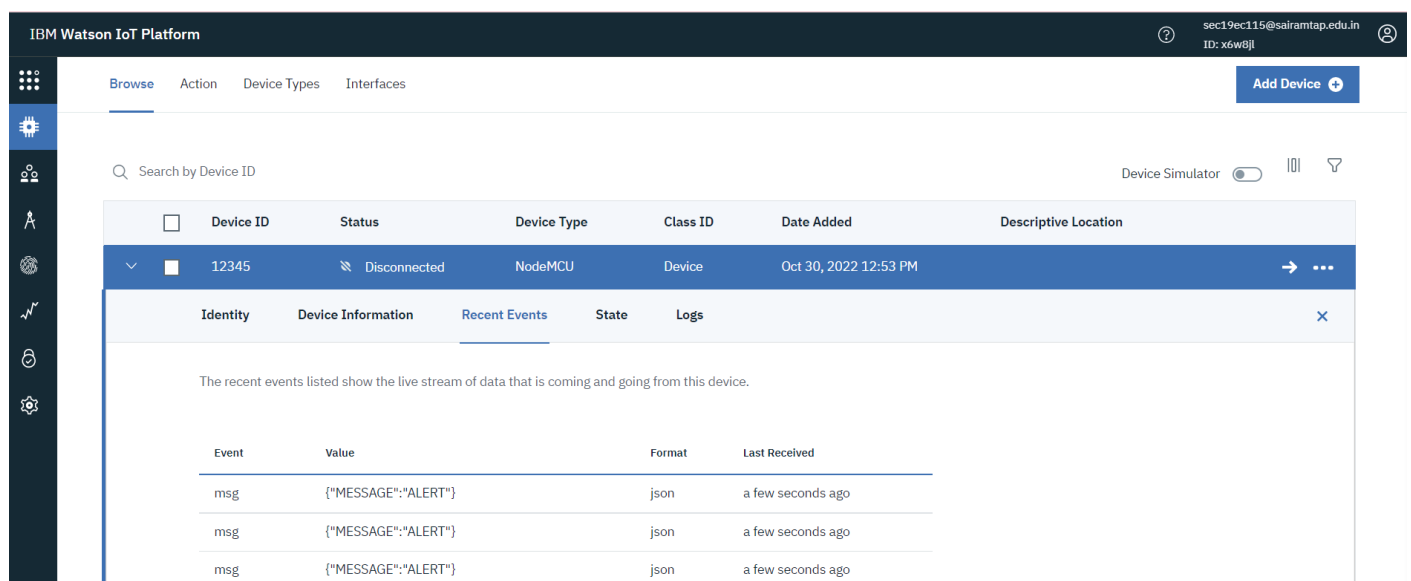
| Device ID | Status       | Device Type | Class ID | Date Added            | Descriptive Location |
|-----------|--------------|-------------|----------|-----------------------|----------------------|
| 12345     | Disconnected | NodeMCU     | Device   | Oct 30, 2022 12:53 PM |                      |

Identity Device Information Recent Events State Logs

Device ID: 12345  
Device Type: NodeMCU  
Date Added: Oct 30, 2022 12:53 PM  
Added By: sec19ec115@sairamtap.edu.in  
Connection Status: Disconnected

Items per page 50 | 1-1 of 1 item

1 of 1 page



IBM Watson IoT Platform

sec19ec115@sairamtap.edu.in  
ID: x6w8jl

Browse Action Device Types Interfaces

Add Device +

Search by Device ID

Device Simulator

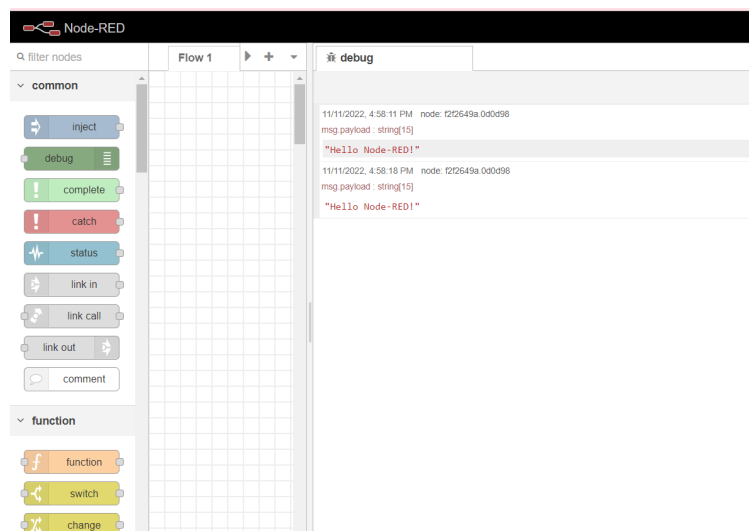
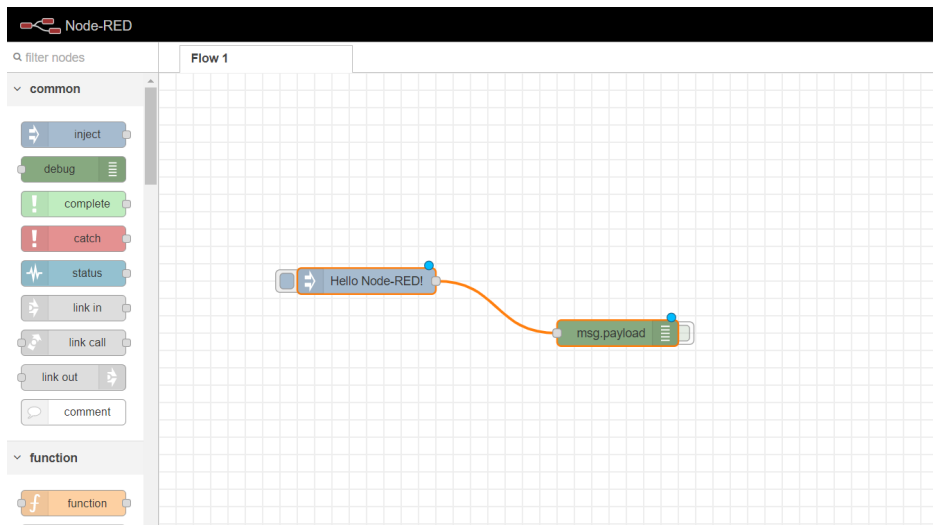
| Device ID | Status       | Device Type | Class ID | Date Added            | Descriptive Location |
|-----------|--------------|-------------|----------|-----------------------|----------------------|
| 12345     | Disconnected | NodeMCU     | Device   | Oct 30, 2022 12:53 PM |                      |

Identity Device Information Recent Events State Logs

The recent events listed show the live stream of data that is coming and going from this device.

| Event | Value               | Format | Last Received     |
|-------|---------------------|--------|-------------------|
| msg   | {"MESSAGE":"ALERT"} | json   | a few seconds ago |
| msg   | {"MESSAGE":"ALERT"} | json   | a few seconds ago |
| msg   | {"MESSAGE":"ALERT"} | json   | a few seconds ago |

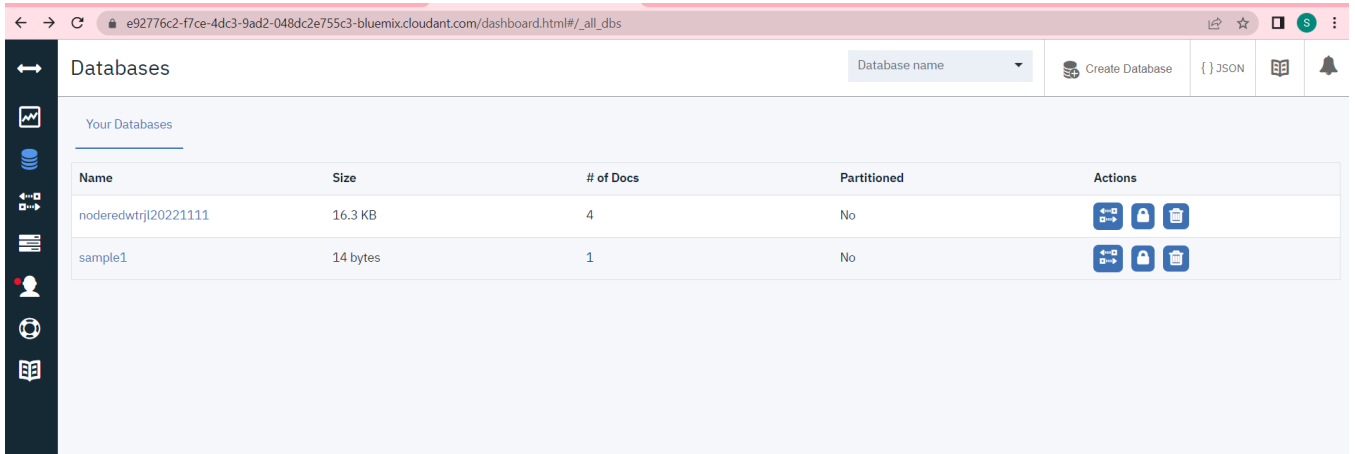
## STEP – 2 : CREATING NODE – RED SERVICE









The table displays the 'Resource list' in the IBM Cloud console. It includes columns for Name, Group, Location, Product, Status, and Tags. The resources are categorized by Group, and the 'Developer tools' group is expanded, showing three resources: Continuous Delivery, Node RED ACKYP, and Node RED CDBUQ.

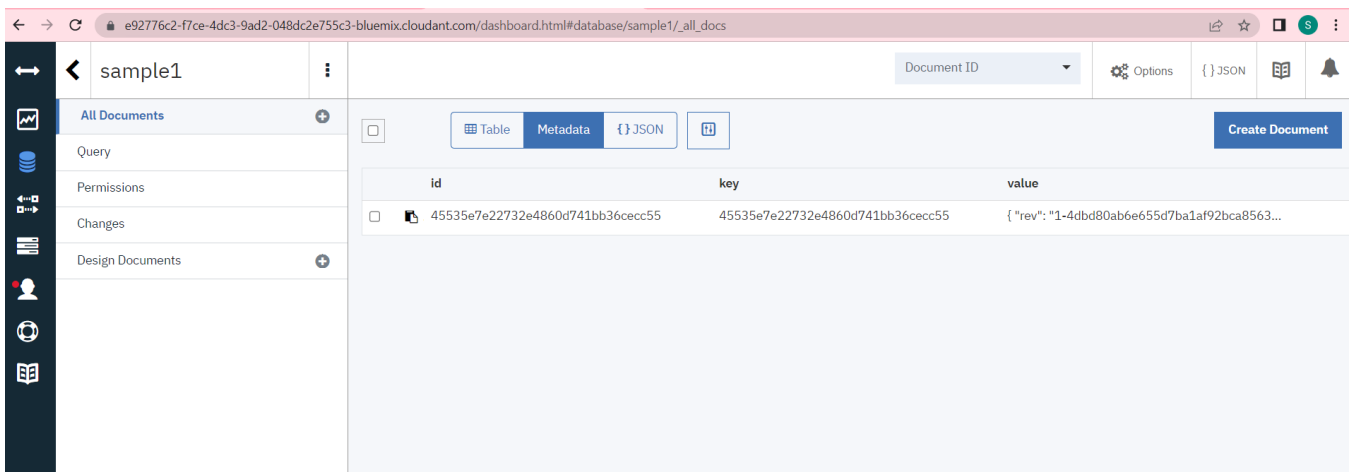
| Name                      | Group   | Location | Product             | Status | Tags |
|---------------------------|---------|----------|---------------------|--------|------|
| Continuous Delivery       | Default | London   | Continuous Delivery | Active | —    |
| Node RED ACKYP 2022-11-11 | Default | Global   | Cloud Application   | —      | —    |
| Node RED CDBUQ 2022-11-11 | Default | Global   | Cloud Application   | —      | —    |

## STEP – 3 : CREATING A DATABASE IN CLOUDANT DB




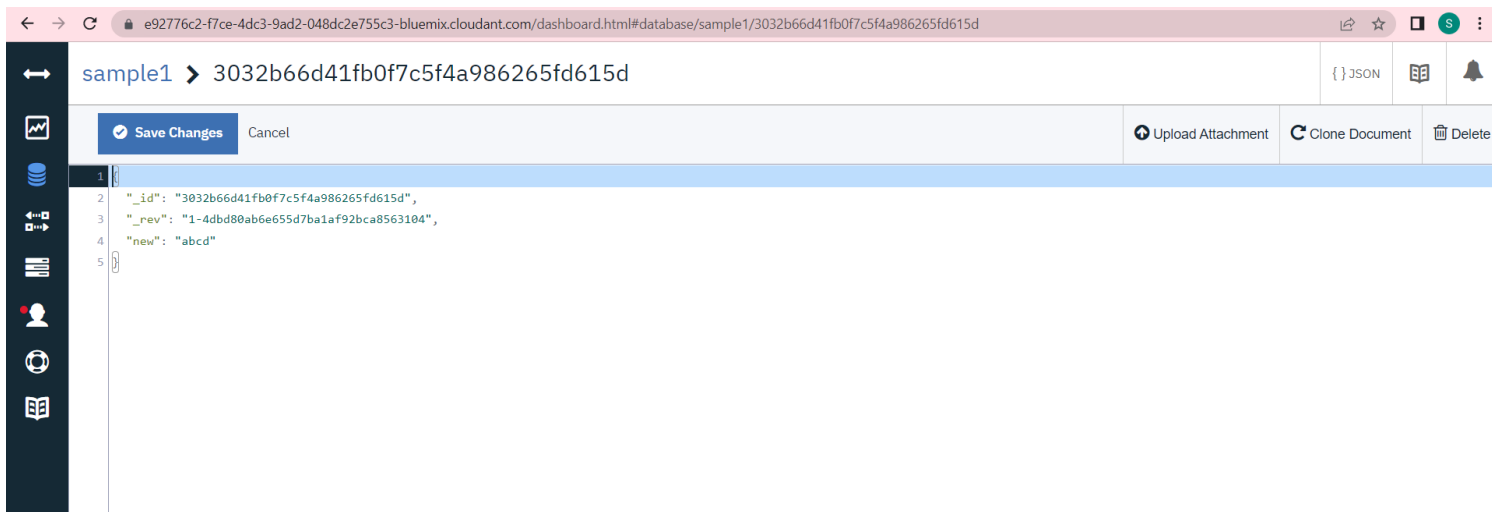
The screenshot shows the Cloudant Databases dashboard. The URL bar indicates the path: `e92776c2-f7ce-4dc3-9ad2-048dc2e755c3-bluemix.cloudant.com/dashboard.html#/_all_dbs`. The page title is "Databases". On the right, there is a "Database name" dropdown, a "Create Database" button, and icons for JSON, a document, and a bell. The main content area, titled "Your Databases", contains a table with the following data:

| Name                | Size     | # of Docs | Partitioned | Actions   |
|---------------------|----------|-----------|-------------|---|
| noderedwtrj20221111 | 16.3 KB  | 4         | No          |    |
| sample1             | 14 bytes | 1         | No          |    |



The screenshot shows the Cloudant database view for the "sample1" database. The URL bar indicates the path: `e92776c2-f7ce-4dc3-9ad2-048dc2e755c3-bluemix.cloudant.com/dashboard.html#database/sample1/_all_docs`. The page title is "sample1". On the right, there is a "Document ID" dropdown, an "Options" button, and icons for JSON, a document, and a bell. The main content area, titled "All Documents", contains a table with the following data:

| id   | key                              | value   |
|--|----------------------------------|---|
|  45535e7e22732e4860d741bb36cecc55 | 45535e7e22732e4860d741bb36cecc55 | { "rev": "1-4dbd80ab6e655d7ba1af92bca8563..." } |



The screenshot shows the Cloudant document editor for the "sample1" database. The URL bar indicates the path: `e92776c2-f7ce-4dc3-9ad2-048dc2e755c3-bluemix.cloudant.com/dashboard.html#database/sample1/3032b66d41fb0f7c5f4a986265fd615d`. The page title is "sample1 > 3032b66d41fb0f7c5f4a986265fd615d". On the right, there is a "JSON" icon, a document icon, and a bell. The main content area, titled "sample1", contains a document editor with the following content:

```
1 {
2   "_id": "3032b66d41fb0f7c5f4a986265fd615d",
3   "_rev": "1-4dbd80ab6e655d7ba1af92bca8563104",
4   "new": "abcd"
5 }
```

# STEP – 4 : CREATING A CLOUD OBJECT STORAGE SERVICE

IBM Cloud

Cloud Object Storage

Storage instances

Cloud Object Storage-v6

**Buckets**

Integrations

Endpoints

Usage details

Service credentials

Connections

Plan

Search resources and products...

Catalog Manage Sakthi Meenakshi S's A...

Buckets

Buckets serve as containers for objects, and can be individually configured in terms of their location, resiliency, billing rates, security, and object lifecycle rules.

Search

Create bucket +

| Name                | Public access ① | Location ① | Storage class | Created            |   |
|---------------------|-----------------|------------|---------------|--------------------|---|
| samplestoragesakthi | No              | jp-tok     | Smart Tier    | 2022-11-11 6:41 PM | : |

IBM Cloud

Cloud Object Storage

Storage instances

Cloud Object Storage-v6

**Buckets**

Integrations

Endpoints

Usage details

Service credentials

Connections

Plan

Search resources and products...

Catalog Manage Sakthi Meenakshi S's A...

Storage / Cloud Object Storage-v6 / samplestoragesakthi

Transfers Details Actions...

Objects Configuration Permissions

If you're seeing more usage than expected, versions count towards your usage or you may have incomplete uploads [Learn more](#)

Prefix filter

Upload

| Object name                                 | Archived ① | Size     | Last modified      |   |
|---|------------|----------|--------------------|---|
| Technology Architec...t Crop Protection.pdf |            | 892.9 KB | 2022-11-11 6:43 PM | : |

Drag and drop files (objects) here or click to upload

IBM Cloud

Cloud Object Storage

Storage instances

Cloud Object Storage-v6

Buckets

Integrations

Endpoints

Usage details

**Service credentials**

Connections

Plan

Search resources and products...

Catalog Manage Sakthi Meenakshi S's A...

Service credentials

You can generate a new set of credentials for cases where you want to manually connect an app or external consumer to an IBM Cloud service. [Learn more](#)

Search credentials...

New credential +

| Key name              | Date created       |     |
|-----------------------|--------------------|-----|
| Service credentials-1 | 2022-11-11 6:52 PM | 📄 🗑 |

```
{  "apikey": "ffJDa9S-BXS1PwgtcNQQuoRgy_bnteThCPdDPNdLy5L",  "endpoints": "https://control.cloud-object-storage.cloud.ibm.com/v2/endpoints",  "iam_apikey_description": "Auto-generated for key crn:v1:bluemix:public:cloud-object-storage:global:a/9fbed82b073f4ea2877ad3f0a23d254f:7a4c4600-7289-4edf-bfb7-467f16936677:resource-key:5b04b0b2-9715-454d-863c-783838590dff",  "iam_apikey_name": "Service credentials-1",  "iam_role_crn": "crn:v1:bluemix:public:iam::::serviceRole:Writer",  "iam_serviceid_crn": "crn:v1:bluemix:public:iam-identity:a/9fbed82b073f4ea2877ad3f0a23d254f::serviceid:ServiceId-2eb76212-6d36-4c25-96cc-ec155df140ec",  "resource_instance_id": "crn:v1:bluemix:public:cloud-object-storage:global:a/9fbed82b073f4ea2877ad3f0a23d254f:7a4c4600-7289-4edf-bfb7-467f16936677::"}
```