

Date	1 November 2022
TEAM ID	PNT2022TMID0406376
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

The screenshot shows the IBM Watson IoT Platform interface. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A search bar is present with the text 'Search by Device ID'. The main content area displays a table with columns: Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Location. The first row shows device ID 12345, status 'Disconnected', device type 'NodeMCU', class ID 'Device', and date added 'Oct 30, 2022 12:53 PM'. Below the table, a detailed view for device 12345 is shown, including fields for Device ID, Device Type, Date Added, Added By, and Connection Status.

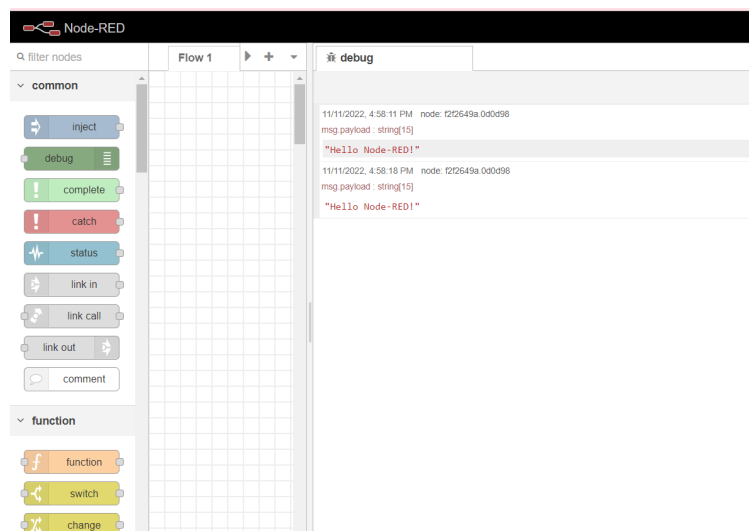
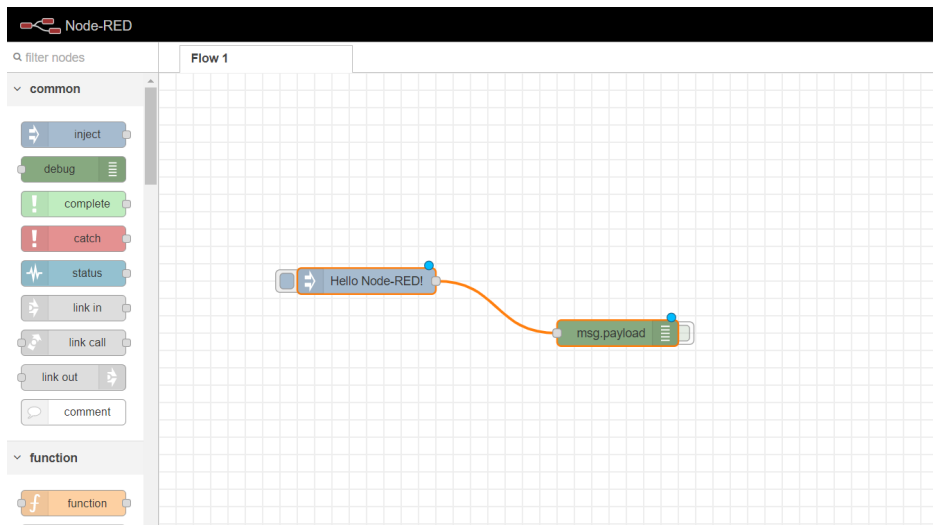
Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
12345	Disconnected	NodeMCU	Device	Oct 30, 2022 12:53 PM	

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

The screenshot shows the IBM Watson IoT Platform interface, specifically the 'Recent Events' tab for device ID 12345. The interface displays a table of recent events, including columns for Event, Value, Format, and Last Received. The events listed are JSON messages with the key 'MESSAGE' and the value 'ALERT'.

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

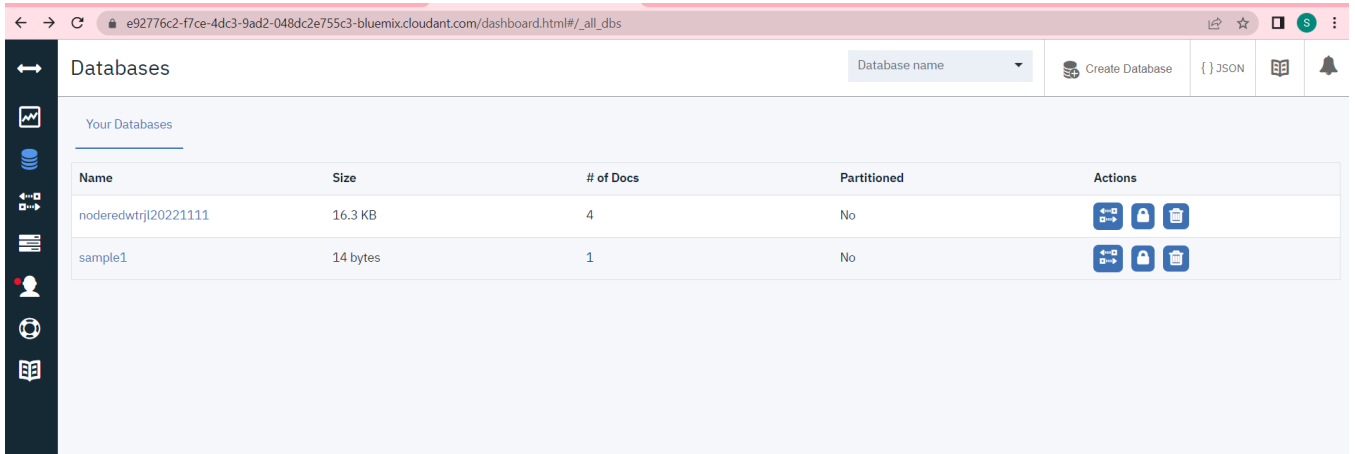
STEP – 2 : CREATING NODE – RED SERVICE









The image shows the IBM Cloud Resource list page. The table lists resources with columns for Name, Group, Location, Product, Status, and Tags. The resources are categorized by Group, including Compute, Containers, Networking, Storage, AI / Machine Learning, Analytics, Blockchain, Databases, and Developer tools. The Developer tools group is expanded, showing three resources: Continuous Delivery, Node RED ACKYP 2022-11-11, and Node RED CDBUQ 2022-11-11.

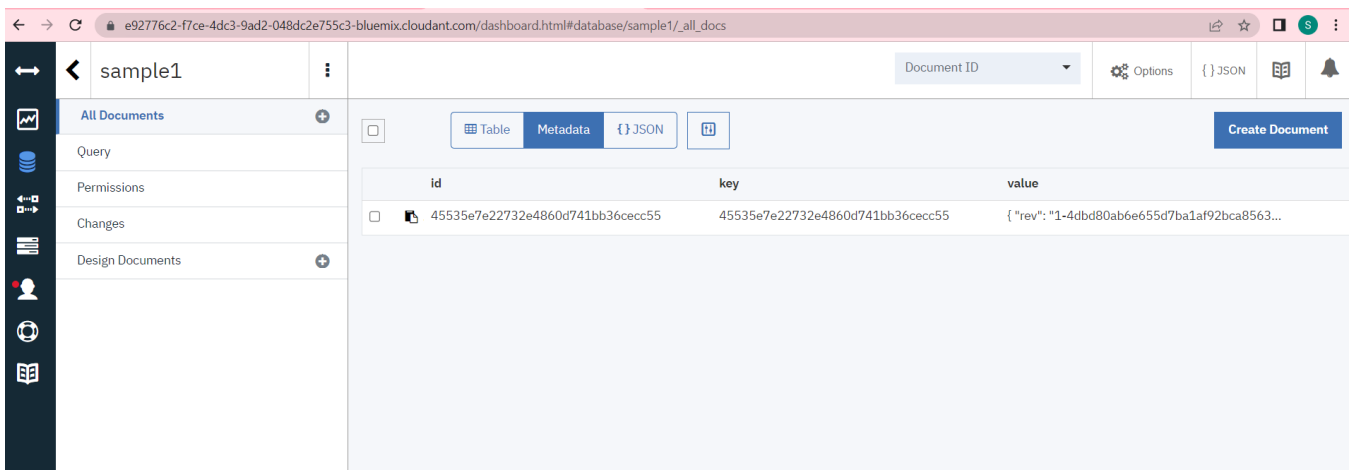
Name	Group	Location	Product	Status	Tags
Filter by name or IP address... Filter by group or org... Filter... Filter... Filter... Filter...					
Compute (1+)					
Containers (0)					
Networking (0)					
Storage (0)					
AI / Machine Learning (0)					
Analytics (0)					
Blockchain (0)					
Databases (2+)					
Developer tools (8)					
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




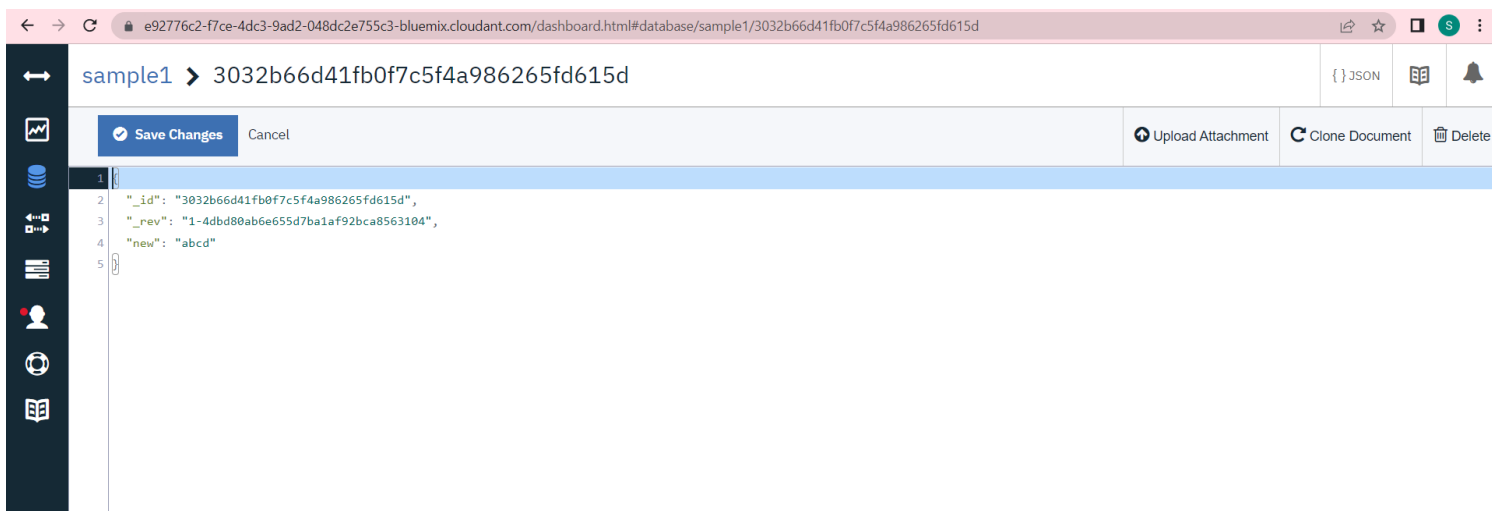
The screenshot shows the Cloudant Databases dashboard. The URL bar indicates the path `/dashboard.html#/_all_dbs`. The page title is "Databases". On the right, there is a "Database name" dropdown, a "Create Database" button, and icons for JSON, a document, and a bell. The main content area, titled "Your 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 "sample1" document list view. The URL bar indicates the path `/dashboard.html#database/sample1/_all_docs`. The page title is "sample1". On the right, there is a "Document ID" dropdown, an "Options" button, a JSON icon, a document icon, and a bell. The main content area has a left sidebar with "All Documents" (selected), "Query", "Permissions", "Changes", and "Design Documents". The main area shows a table with the following data:

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



The screenshot shows the Cloudant database "sample1" document editor view. The URL bar indicates the path `/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 has a top bar with "Save Changes" (checked), "Cancel", "Upload Attachment", "Clone Document", and "Delete". The main area shows a text editor with the following JSON document:

```
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

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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

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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-BXS1PwgtcNQ0uqoRgy_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::"}
```