

Create and Configure IBM Cloud Services

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|--------------|---|
| Date | 09 November 2022 |
| Team ID | PNT2022TMID43416 |
| Project Name | Project - SMART WASTE MANAGEMENT SYSTEM |

Create IBM Watson IoT Platform And Device:

IBM Watson IoT Platform

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 | Descriptive Location |
|-----------|-----------|-------------|----------|---------------------|----------------------|
| 123456789 | Connected | Node_Mcu | Device | Nov 9, 2022 8:21 PM | |

Items per page 50 | 1-1 of 1 item

1 of 1 page

IBM Watson IoT Platform

Browse Action Device Types Interfaces

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Identity Device Information Recent Events State Logs

Device ID 123456789

Device Type Node_Mcu

Date Added Nov 9, 2022 8:21 PM

Added By d201602@psgitech.ac.in

Connection Status Connected

Connection Time: Nov 10, 2022 8:22 PM

Client Address: 157.51.89.189 SecureToken

Create Node-RED Service:

The screenshot displays the IBM Cloud Developer console for a service named "Node RED QVPWI 2022-11-09". The interface is divided into several sections:

- Details:** Shows the App URL (<http://159.122.181.148:30848>), Source (<https://us-south.git.cloud.ibm.com/d201602/NodeREDQVPWI2022-11-09>), Resource group (Default), Deployment target (Kube/Helm), and Created date (11/9/2022).
- Services:** Lists the "Cloudant" service with links to its dashboard, documentation, and API reference. It also includes buttons to "Connect existing services" and "Create service".
- Deployment Automation:** Shows the deployment configuration with Name (NodeREDQVPWI2022-11-09), Location (Dallas), and Tool integrations. It lists two delivery pipelines: "pr-pipeline" (No stages detected) and "ci-pipeline" (Success).
- Getting started quickly:** A sidebar with a list of steps for configuring the app, including connecting services, downloading code, and deploying the app.

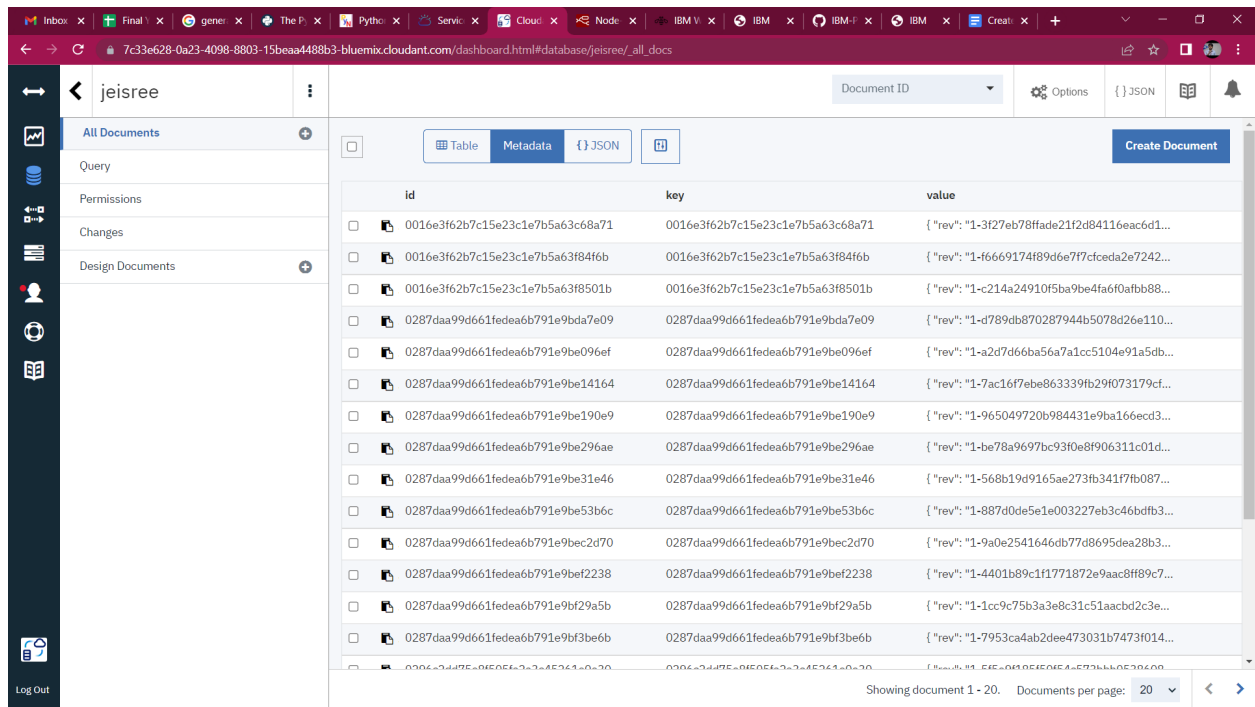
The screenshot shows the Node-RED web interface in a browser. The main workspace displays a flow diagram for "Flow 1" with the following components:

- Inject Node:** Labeled "Hello Node-RED!".
- IBM IoT Node:** Labeled "jeisree" and "connected".
- Function Nodes:** Three function nodes labeled "ultra sonic", "weight", and "gps".
- Message Nodes:** Three message nodes labeled "ultra_sonic", "weight", and "gps".
- msg.payload:** A node for handling the message payload.

The debug console on the right shows the following log entries:

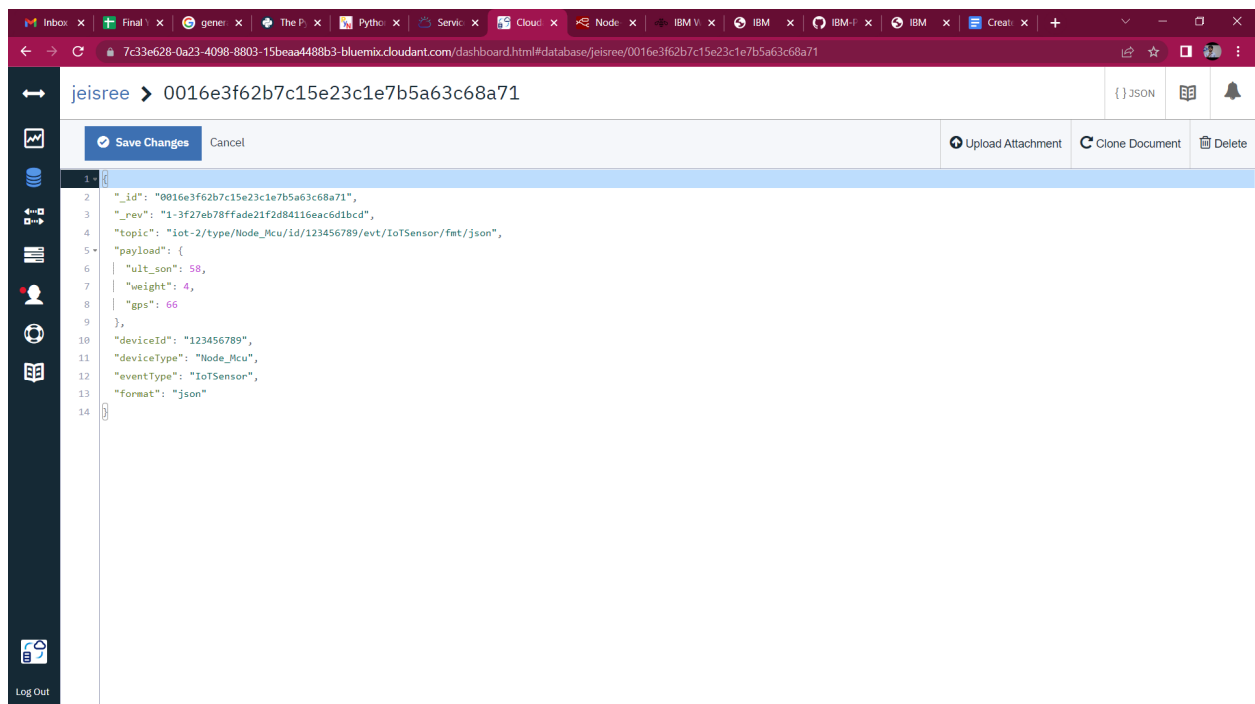
```
11/10/2022, 8:57:30 PM node: f2f2649a-0d0d98-iot-2/hype/Node_Mcoulid123456789/evntIoT/Sensor/rmt/json : msg.payload : undefined
undefined
11/10/2022, 8:57:36 PM node: f2f2649a-0d0d98-iot-2/hype/Node_Mcoulid123456789/evntIoT/Sensor/rmt/json : msg.payload : Object
{ Ultrasonic : 31, Weight : 43, GPS : "11.033976,76.893168" }
11/10/2022, 8:57:36 PM node: f2f2649a-0d0d98-iot-2/hype/Node_Mcoulid123456789/evntIoT/Sensor/rmt/json : msg.payload : undefined
undefined
11/10/2022, 8:57:42 PM node: f2f2649a-0d0d98-iot-2/hype/Node_Mcoulid123456789/evntIoT/Sensor/rmt/json : msg.payload : Object
{ Ultrasonic : 18, Weight : 10, GPS : "11.152886,76.847071" }
```

Create A Database In Cloudant DB:



The screenshot shows the Cloudant DB dashboard for a database named 'jeisree'. The interface includes a sidebar with navigation options like 'All Documents', 'Query', 'Permissions', 'Changes', and 'Design Documents'. The main area displays a table of documents with columns for 'id', 'key', and 'value'. The 'value' column contains JSON objects representing IoT sensor data. At the bottom, it indicates 'Showing document 1 - 20. Documents per page: 20'.

| id | key | value |
|----------------------------------|----------------------------------|--|
| 0016e3f62b7c15e23c1e7b5a63c68a71 | 0016e3f62b7c15e23c1e7b5a63c68a71 | { "rev": "1-3f27eb78ffade21f2d84116eac6d1b..." } |
| 0016e3f62b7c15e23c1e7b5a63f84f6b | 0016e3f62b7c15e23c1e7b5a63f84f6b | { "rev": "1-f6669174f89d6e7f7cfceda2e7242..." } |
| 0016e3f62b7c15e23c1e7b5a63f8501b | 0016e3f62b7c15e23c1e7b5a63f8501b | { "rev": "1-c214a24910f5ba9be4fa60afb88..." } |
| 0287daa99d661fedea6b791e9bda7e09 | 0287daa99d661fedea6b791e9bda7e09 | { "rev": "1-d789db870287944b5078d26e110..." } |
| 0287daa99d661fedea6b791e9be096ef | 0287daa99d661fedea6b791e9be096ef | { "rev": "1-a2d7d66ba56a7a1cc5104e91a5db..." } |
| 0287daa99d661fedea6b791e9be14164 | 0287daa99d661fedea6b791e9be14164 | { "rev": "1-7ac16f7ebe863339fb29f073179cf..." } |
| 0287daa99d661fedea6b791e9be190e9 | 0287daa99d661fedea6b791e9be190e9 | { "rev": "1-965049720b984431e9ba166ecd3..." } |
| 0287daa99d661fedea6b791e9be296ae | 0287daa99d661fedea6b791e9be296ae | { "rev": "1-be78a9697bc93f0e8f906311c01d..." } |
| 0287daa99d661fedea6b791e9be31e46 | 0287daa99d661fedea6b791e9be31e46 | { "rev": "1-568b19d9165ae273fb341f7fb087..." } |
| 0287daa99d661fedea6b791e9be53b6c | 0287daa99d661fedea6b791e9be53b6c | { "rev": "1-887d0de5e1e003227eb3c46bdfb3..." } |
| 0287daa99d661fedea6b791e9bec2d70 | 0287daa99d661fedea6b791e9bec2d70 | { "rev": "1-9a0e2541646db77d8695dea28b3..." } |
| 0287daa99d661fedea6b791e9bef2238 | 0287daa99d661fedea6b791e9bef2238 | { "rev": "1-4401b89c1f1771872e9aac8ff89c7..." } |
| 0287daa99d661fedea6b791e9bf29a5b | 0287daa99d661fedea6b791e9bf29a5b | { "rev": "1-1cc9c75b3a3e8c31c51aacbd2c3e..." } |
| 0287daa99d661fedea6b791e9bf3be6b | 0287daa99d661fedea6b791e9bf3be6b | { "rev": "1-7953ca4ab2dee473031b7473f014..." } |



The screenshot shows the Cloudant DB document editor for a specific document. The document ID is '0016e3f62b7c15e23c1e7b5a63c68a71'. The editor includes a 'Save Changes' button and options to 'Upload Attachment', 'Clone Document', and 'Delete'. The document content is displayed as a JSON object in a code editor.

```
1 {
2   "_id": "0016e3f62b7c15e23c1e7b5a63c68a71",
3   "_rev": "1-3f27eb78ffade21f2d84116eac6d1bcd",
4   "topic": "iot-2/type/Node_Mcu/id/123456789/evt/IoTSensor/fmt/json",
5   "payload": {
6     | "ult_son": 58,
7     | "weight": 4,
8     | "gps": 66
9   },
10  "deviceId": "123456789",
11  "deviceType": "Node_Mcu",
12  "eventType": "IoTSensor",
13  "format": "json"
14 }
```