

Project Development

Date	14 November 2022
Team ID	PNT2022TMID21372
Project Name	Iot Based Safety Gadget For Child Safety Monitoring & Notification
Sprint No	Sprint 4

Creating Cloudant DB and integrating Node-Red with the Web UI

Create Cloudant DB:

The screenshot displays the IBM Cloud console interface for a Cloudant database instance. The instance is named 'node-red-ipsbz-2022--cloudant-1666101551116' and is in an 'Active' state. The 'Overview' tab is selected, showing deployment details:

- CRN:** crm:v1:bluemix:public:cloudantnosqldb:eu-gb:a/f6467a5609a74b8cb9e98a30795e185b:37a9dc98-4dd7-4286-be2a-a48ac708bd27::
- Location:** London
- External endpoint:** <https://28f8a343-0549-4230-b742-60b48462baa3-bluemix.cloudant.com>
- External endpoint (preferred):** <https://28f8a343-0549-4230-b742-60b48462baa3-bluemix.cloudantnosqldb.appdomain.cloud>
- Authentication methods:** IBM Cloud IAM and Cloudant credentials. A 'Migrate to IAM Only' button is available.
- Activity Tracker event types:** Set to 'Management' with a 'Save' button.
- Disk encryption:** Yes. Automatically generated disk encryption key.

The left sidebar shows navigation options: Manage, Service credentials, Plan, and Connections. The top navigation bar includes the IBM Cloud logo, a search bar, and links to Catalog, Manage, and the user profile.

Node-RED - node-red-mctsg-20... x (2) WhatsApp x Cloudant Dashboard - database x +

28f8a343-0549-4230-b742-60b48462baa3-bluemix.cloudant.com/dashboard.html#database/tracker/_all_docs

Document ID Options {} JSON

tracker

All Documents +

Query

Permissions

Changes

Design Documents +

Log Out

Table Metadata {} JSON

Create Document

	id	key	value
<input type="checkbox"/>	0ebfba43b28138b7f7b48f34c5a76c3a	0ebfba43b28138b7f7b48f34c5a76c3a	{ "rev": "1-5e97009804800cf64c39df8dccb6..." }
<input type="checkbox"/>	1166941e69d252626b8eca46080aeab6	1166941e69d252626b8eca46080aeab6	{ "rev": "1-0842bb81b11cd61fe20ed094ab2a..." }
<input type="checkbox"/>	703d29b74356ef26f949797731137cf2	703d29b74356ef26f949797731137cf2	{ "rev": "1-d95bc0f570ae15c90cb7504c862b9..." }
<input type="checkbox"/>	97c5d59e72ae6c2a155702db7151fe7a	97c5d59e72ae6c2a155702db7151fe7a	{ "rev": "1-c02935667733cc4e2db9e07a5ac8..." }
<input type="checkbox"/>	a79bf4f6dccb1b32ebee5a478fa81d	a79bf4f6dccb1b32ebee5a478fa81d	{ "rev": "1-eefce107643e599a668ede810bb81..." }
<input type="checkbox"/>	c7fc90ace4fce8b62132f4a9f2c28ca	c7fc90ace4fce8b62132f4a9f2c28ca	{ "rev": "1-32cd76c4d4a5dc4aae8fae2a256a..." }
<input type="checkbox"/>	e9e28c06775212fe00e77dc99dc8e97d	e9e28c06775212fe00e77dc99dc8e97d	{ "rev": "1-03ac3bfe844e7d696b5970b64dba..." }
<input type="checkbox"/>	f347b088872d7656a0ff956b53c31715	f347b088872d7656a0ff956b53c31715	{ "rev": "1-fed4def46a583def9d7f960c67198..." }
<input type="checkbox"/>	f908b61af224813129b44b117fda0a5f	f908b61af224813129b44b117fda0a5f	{ "rev": "1-24f20fddd2e9e06c4b6ffbeee6b58..." }

Showing document 1 - 9. Documents per page: 20 < >

WhatsApp x Meet x IBM x IBM Wat x Cloudant x Service x Applicat x Node-RE x Node-RE x Untitled x Applicat x +

28f8a343-0549-4230-b742-60b48462baa3-bluemix.cloudant.com/dashboard.html#/all_dbs

Databases Database name Create Database {} JSON

Monitoring

Databases

Replication

Active Tasks

Account

Support

Documentation

IBM Cloudant

Log Out IBMId-668000C1HS

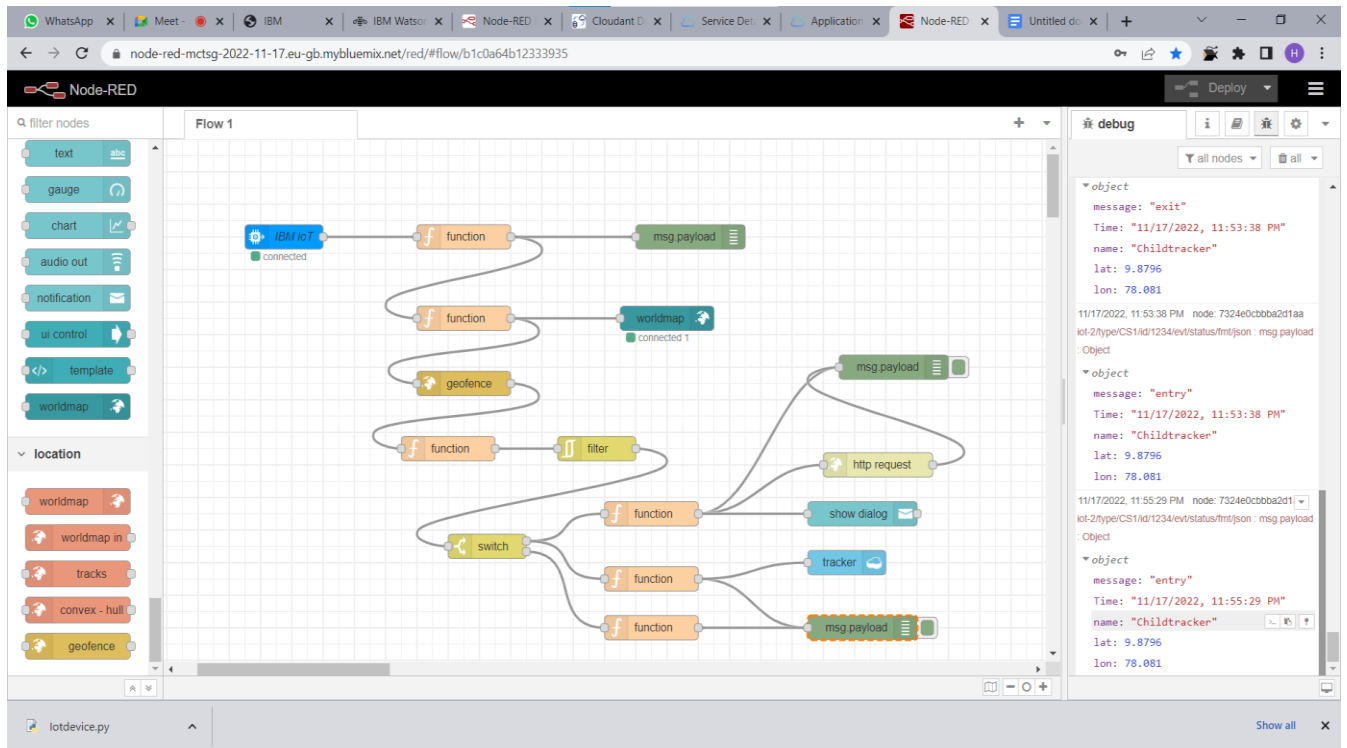
Your Databases

Name	Size	# of Docs	Partitioned	Actions
childsafety	14 bytes	1	No	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
noderedmctsg20221117	29.5 KB	4	No	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
tracker	1.8 KB	7	No	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Showing 1-3 of 3 databases. Databases per page: 20 < 1 >

lotdevice.py Show all x

Node-Red Service IN Area:



```
* object  
  message: "entry"  
  Time: "11/17/2022, 11:53:38 PM"  
  name: "Childtracker"  
  lat: 9.8796  
  lon: 78.081  
11/17/2022, 11:55:29 PM node: 7324e0cbbba2d1aa  
iot-2/type/CS1/ld/1234/ev0/status/fmt/json : msg.payload  
: Object  
  * object  
    message: "entry"  
    Time: "11/17/2022, 11:55:29 PM"  
    name: "Childtracker"  
    lat: 9.8796  
    lon: 78.081
```

Node-Red Service OUT Area:

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

- IBM IoT** node (connected) feeds into a **function** node.
- The first **function** node connects to a **msg.payload** node.
- The **msg.payload** node connects to another **function** node.
- This second **function** node connects to a **worldmap** node (connected).
- The **worldmap** node connects to a **geofence** node.
- The **geofence** node connects to a third **function** node.
- This third **function** node connects to a **filter** node.
- The **filter** node connects to a **switch** node.
- The **switch** node has four outgoing paths, each leading to a **function** node.
- These four **function** nodes connect to various output nodes: **http request** (requesting), **show dialog**, **tracker**, and **msg.payload**.

The right sidebar shows the **debug** console with the following log entries:

```
11/17/2022, 11:57:15 PM node: 534ecdadeabff5c9  
iot-2/type/CS1/Id/1234/ev/status/fmt/json : msg.payload  
: Object  
  message: "entry"  
  Time: "11/17/2022, 11:55:29 PM"  
  name: "Childtracker"  
  lat: 9.8796  
  lon: 78.001  
11/17/2022, 11:57:15 PM node: 534ecdadeabff5c9  
iot-2/type/CS1/Id/1234/ev/status/fmt/json : msg.payload  
: string[23]  
"Not within the geofence"  
11/17/2022, 11:57:15 PM node: a67e793b63cfe567  
msg: string[16]  
"No url specified"  
11/17/2022, 11:57:15 PM node: 7324e0cbbba2d1aa  
iot-2/type/CS1/Id/1234/ev/status/fmt/json : msg.payload  
: Object  
  message: "exit"  
  Time: "11/17/2022, 11:57:15 PM"  
  name: "Childtracker"  
  lat: 9.95143  
  lon: 78.1158
```

```
11/17/2022, 11:57:15 PM node: 534ecdadeabff5c9  
iot-2/type/CS1/Id/1234/ev/status/fmt/json : msg.payload  
: string[23]  
"Not within the geofence"
```

```
11/17/2022, 11:57:15 PM node: 7324e0cbbba2d1aa  
iot-2/type/CS1/Id/1234/ev/status/fmt/json : msg.payload  
: Object  
  message: "exit"  
  Time: "11/17/2022, 11:57:15 PM"  
  name: "Childtracker"  
  lat: 9.95143  
  lon: 78.1158
```

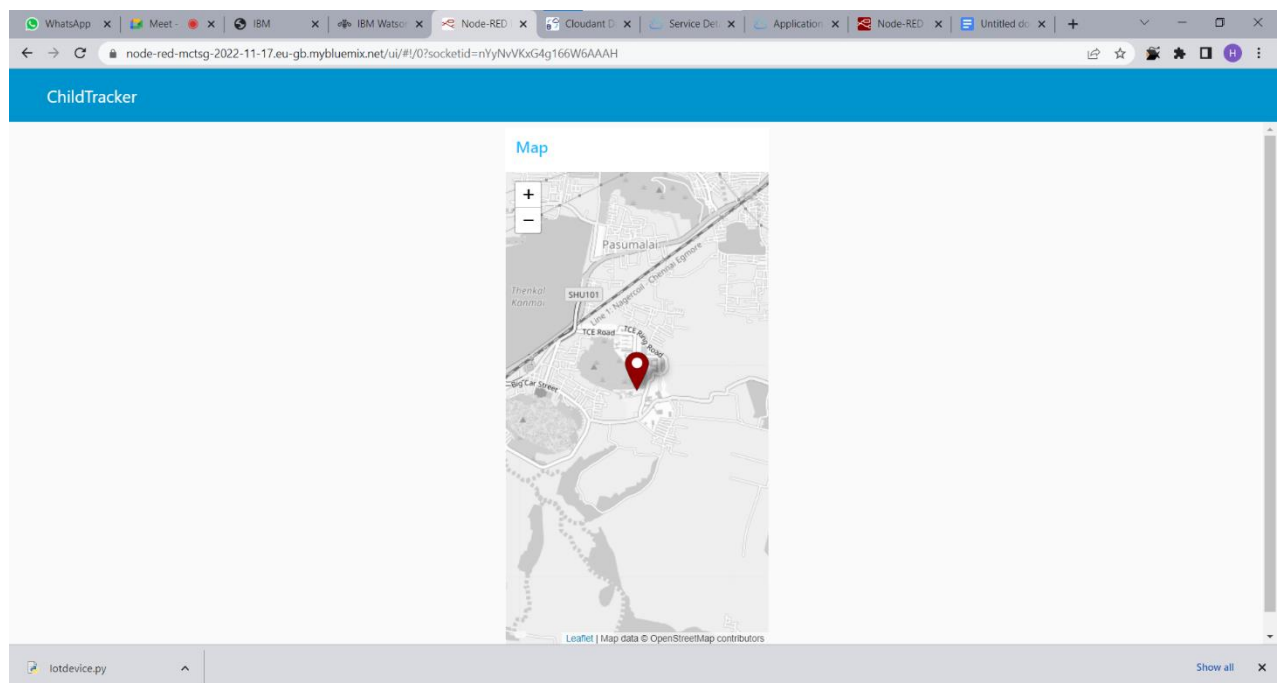
The screenshot shows the IBM Cloudant dashboard for a database named 'tracker'. A document with ID 'f908b61af224813129b44b117fda0a5f' is being viewed. The document is a JSON object containing tracking data. The interface includes a sidebar with navigation links and a top bar with application tabs. The document content is displayed in a code editor with line numbers.

```

1 {
2   "_id": "f908b61af224813129b44b117fda0a5f",
3   "_rev": "1-24f20fddd2e9e064b6ffbeeee6b581a",
4   "topic": "iot-2/type/CS1/id/1234/evt/status/fmt/json",
5   "payload": {
6     "message": "exit",
7     "time": "11/17/2022, 11:42:05 PM",
8     "name": "Childtracker",
9     "lat": 9.8796,
10    "lon": 78.081
11  },
12  "deviceId": "1234",
13  "deviceType": "CS1",
14  "eventType": "status",
15  "format": "json",
16  "location": {
17    "inarea": true
18  }
19 }

```

IN Area:



OUT Area:

