

CREATE AND CONFIGURE IBM CLOUD SERVICE

Create A Database In Cloudant DB

Date	19 September 2022
Team ID	PNT2022TMID52022
Project Name	IoT Based gadget for child safety monitoring and notification
Maximum Marks	4 Marks

Data store connector for Cloudant NoSQL DB

- Use IBM® Cloudant® NoSQL DB for IBM Cloud to store and access your device data in daily, weekly, or monthly databases set by on your selected bucket interval.
- Current bucket interval database.
- Upcoming interval database.
- When the end of an interval is reached, device data is stored in the bucket database for the new interval and a new database is created for the following interval.
- Configuration database.
- Design documents that you add to the configuration database are copied to new databases as these are created.

JSON:

If the data is valid JSON and the format of the device event is set to json, the device data is stored in the following format:

Bucket interval

{bucketName} format

Day yyyy-mm-dd

Example: 2019-07-06 for events on 6 July 2019.

Week yyyy-‘w’ww

Where ‘w’ww indicates a week number. Example: 2019-w03 for events in the third week of 2019.

Month yyyy-mm Example: 2019-07 for events in July 2019.

Database naming schema

The destination configuration determines how IBM Maximo Asset Monitor manages the databases in your Cloudant NoSQL DB account.

The database naming schema is as follows: {destinationName}_{bucketName}, with {bucketName} determined by your choice of bucketInterval when you [configure the Cloudant NoSQL DB destination](#):

Configuration

By using the Python SDK, you can set up a Cloudant NoSQL DB binding in just a few lines of code. For more information about how to get your IoT data forwarded to Cloudant NoSQL DB, see the Python SDK documentation for DSC.

You can also use the following code sample to configure two destinations and forwarding rules to ensure that all events and all states are forwarded.

Step 1: Set up the service binding

To configure a service binding to Cloudant NoSQL DB, you need the following Cloudant NoSQL DB information:

Username

Password

Host

Port

With this information, you can call the API to create a new Cloudant NoSQL DB service binding.

When the service binding completes, a `serviceld` is returned. You need this 36

```
{
  "_id": "80f1ce10-3311-11e6-a74
  "_rev": "1-bfcbf1e74389fe4188a
  "payload": "eHh4eHg=",
  "typeId": "t",
  "deviceType": "0",
  "eventType": "non_json_payload
  "format": "notjson",
  "timestamp": "2016-06-15T16:54
}
```

character UUID when you set up the connector instance.

Other data

Device data is stored in a database either as JSON or as base64 depending on the data type.

Device data that is not valid JSON or where the format is not set to json is stored as a base64 encoded strings under the payload field in the following format:

You can also use the following code sample to configure two destinations and forwarding rules to ensure that all events and all states are forwarded.

```
{
  "_id": "78bf4380-3311-11e6-a74
  "_rev": "2-d13912b7c089f060a4b
  "typeId": "t",
  "deviceType": "0",
  "eventType": "json_payload",
  "format": "json",
  "timestamp": "2016-06-15T16:54
  "data": {
    "a": 22
  }
}
```