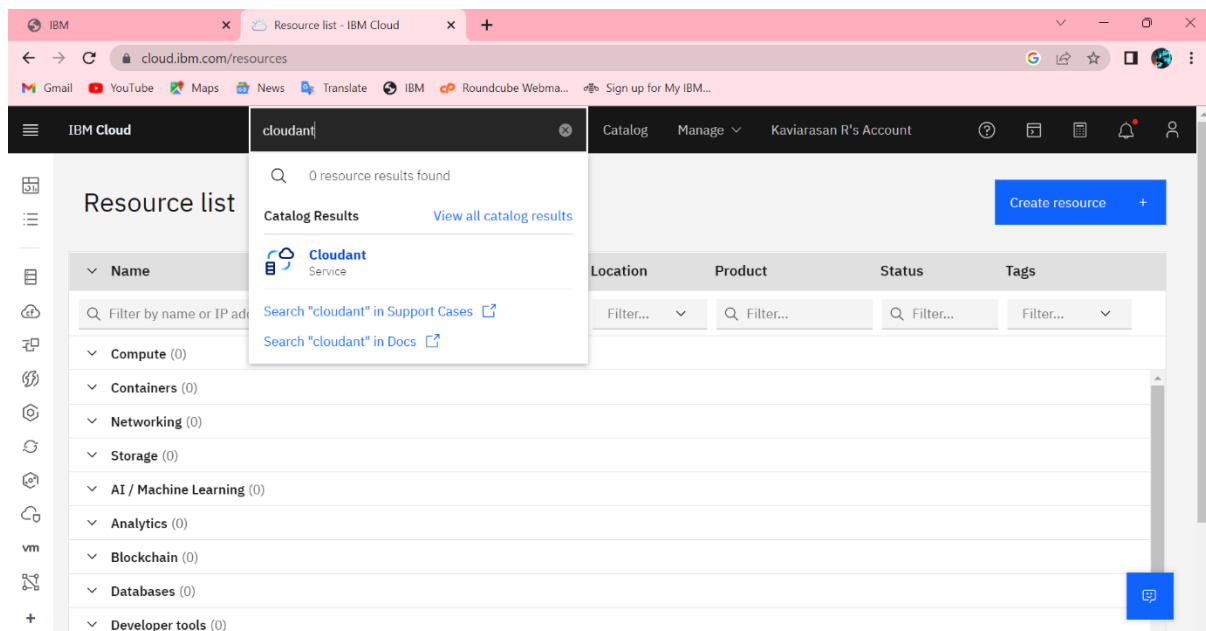


## CREATING DATABASE IN CLOUDANT DB

<b>Team ID</b>	<b>PNT2022TMID40891</b>
<b>Project Name</b>	<b>IoT Based Smart Crop Protection System For Agriculture</b>

### Cloudant DB:

Cloudant is an IBM software product, which is primarily delivered as a cloud-based service. Cloudant is a non-relational, distributed database service of the same name. Cloudant is based on the Apache-backed CouchDB project and the open source BigCouch project. Cloudant's service provides integrated data management, search, and analytics engine designed for web applications. Apache CouchDB is an open-source document-oriented NoSQL database.



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cloud.ibm.com/catalog/services/cloudant

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Configure Cloudant instance

Instance name

Cloudant-ap

Resource group

Default

Tags

Examples: env:dev, version-1

Authentication method

IAM and legacy credentials

Plan

Lite

Full functionality for development and evaluation with a set capacity. Only one Lite plan instance per

Standard

Granular control over provisioned throughput capacity allocated. Billing prorated hourly.

Summary

1 Cloudant Lite

Free

20 Reads/sec

Free

10 Writes/sec

Free

5 Global Queries/sec

Free

1 GB Storage

Included

Create

Add to estimate

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1 GB Storage

Included

Creating instance...

Create

Add to estimate

IBM Cloud Resource list

Create resource +

Name	Group	Location	Product	Status	Tags
Filter by name or IP address... Filter by group or org. Filter... Filter... Filter... Filter...					
Analytics (0)					
Blockchain (0)					
Databases (1)					
Cloudant-ap	Default	Sydney	Cloudant	Active	
Developer tools (0)					
Logging and monitoring (0)					
Migration (0)					
Integration (0)					
Internet of Things (1+)					

Service Details - IBM Cloud

Cloudant-ap Active Add tags

Details Actions...

Manage Overview Capacity Docs Launch Dashboard

Service credentials Plan Connections

Deployment details

CRN crn:v1:bluemix:public:cloudantnosqldb:au-syd:a/ec92cad5610f4827b6ceb98d377b46d1:ce75c59f-8be5-448b-9c09-04fddf106ac3::

Location Sydney

External endpoint https://396e8f32-2500-499f-a5a6-ebeda1c0b212-bluemix.cloudant.com

External endpoint (preferred) https://396e8f32-2500-499f-a5a6-ebeda1c0b212-bluemix.cloudantnosqldb.appdomain.cloud

https://396e8f32-2500-499f-a5a6-ebeda1c0b212-bluemix.cloudant.com/\_api/v2/ibmid\_sso/start IBM Cloud IAM and Cloudant credentials Migrate to IAM Only



IBM Service Details - IBM Cloud Cloudant Dashboard - database/ +

396e8f32-2500-499f-a5a6-ebeda1c0b212-bluemix.cloudant.com/dashboard.html#database/kaviarasan/\_new

Gmail YouTube Maps News Translate IBM Roundcube Webma... Sign up for My IBM...

kaviarasan > New Document {} JSON

Create Document Cancel

```
1 {
2   "_id": "5656c6d92ab35c311d901481187e34bf",
3   "new": "PNT2022TMD40891"
4 }
```

Log Out

IBM Service Details - IBM Cloud Cloudant Dashboard - database/ +

396e8f32-2500-499f-a5a6-ebeda1c0b212-bluemix.cloudant.com/dashboard.html#database/kaviarasan/\_all\_docs

Gmail YouTube Maps News Translate IBM Roundcube Webma... Sign up for My IBM...

kaviarasan Document ID Options {} JSON

All Documents +


Query

Permissions

Changes

Design Documents +

Table Metadata {} JSON Create Document

	id	key	value
<input type="checkbox"/>	 5656c6d92ab35c311d90148118...	5656c6d92ab35c311d90148118...	{"rev": "1-d4be20f3c8cab11e3c..."}

Showing document 1 of 1. Documents per page: 20

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## Introduction

Last updated: 2022-10-24

IBM® Cloudant® for IBM Cloud® is a document-oriented database as a service (DBaaS). It stores data as documents in JSON format. It is built with scalability, high availability, and durability in mind. It comes with a wide variety of indexing options that include MapReduce, IBM Cloudant Query, full-text indexing, and geospatial indexing. The replication capabilities make it easy to keep data in sync between database clusters, desktop PCs, and mobile devices.

Detailed documentation is also available such as a [Getting started tutorial](#), [API overview documentation, tutorials, and guides](#).

This documentation describes the Python SDK and examples. To see usage information and examples in your preferred SDK, select the language tab in the right pane.

## Endpoint URLs

Curl Java Node **Python** Go

The code examples on this tab use the IBM Cloudant SDK for Python.

### Installation

```
pip3 install ibmcloudant
```

### GitHub

<https://pypi.org/project/ibm-cloudant-python-sdk/>

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## Endpoint URLs

Curl Java Node **Python** Go

```
def post_all_docs_as_stream(self, db: str, *, att_encoding_info: bool = None, attachments: bool = None, conflicts: bool = None, descending: bool = None, include_docs: bool = None, inclusive_end: bool = None, limit: int = None, skip: int = None, update_seq: bool = None, end_key: str = None, key: str = None, keys: List[str] = None, start_key: str = None, **kwargs) -> DetailedResponse
```

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# Request

**parameters**

**db**

Required \*

str

Path parameter to specify the database name.

**Possible values:** length ≤ 238, Value must match regular expression

`/^_db$|^_global_changes$|^_metadata$a${^_nodes$|^_replicator$|^_users$|^_a-z}[a-z0-9_$()+\./-]*$/`

**att\_encoding\_info**

bool

Parameter to specify whether to include the encoding information in attachment stubs if the particular attachment is compressed.

**Default:** `false`

**attachments**

bool

Parameter to specify whether to include attachments bodies in a response.

**Default:** `false`

Curl

Java

Node

**Python**

Go

Example request

```
from ibmcloudant.cloudant_v1 import CloudantV1

service = CloudantV1.new_instance()

response = service.post_all_docs(
    db='orders',
    include_docs=True,
    start_key='abc',
    limit=10
).get_result()

print(response)
```

Example request as a stream

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List of HTTP codes

**Code example**

Other errors

Additional headers

# Code example

If an error response is received from the server endpoint, the Python SDK will throw an `ApiException` that includes more information about the cause of the failure. It provides the following details:

Field	Description
code	HTTP response status code
message	the error message returned in the response
reason	a more detailed description about the cause of the failure

## Other errors

HTTP API requests may also not complete successfully due to error conditions in the network. This condition will cause IBM Cloudant request

Curl

Java

Node

**Python**

Go

Example error handling

```
from ibm_cloud_sdk_core import ApiException

try:
    # Invoke a Cloudant method request
except ApiException as ae:
    print("Method failed")
    print(" - status code: " + str(ae.code))
    print(" - error message: " + ae.message)
    if ("reason" in ae.http_response.json()):
        print(" - reason: " +
            ae.http_response.json()["reason"])
```

```
from requests import ConnectionError,
ReadTimeout, RequestException, ValueError
```

The screenshot shows the IBM Cloudant API documentation page for Python. The left sidebar contains a navigation menu with the following items: Overview, Introduction, Endpoint URLs, Authentication, Auditing, Event tracking, Error handling, List of HTTP codes, Code example, Other errors (selected), and Additional headers. The main content area is titled "Other errors" and contains the following text:

HTTP API requests may also not complete successfully due to error conditions in the network. This condition will cause IBM Cloudant request to fail.

In this case, the `requests` package will raise specific exceptions for these problems.

Argument validation prevents invalid values and stops the request from being sent. Invalid argument values raise an `ValueError` exception.

The right sidebar shows a code editor with Python code for handling exceptions:

```
from requests import ConnectionError, ReadTimeout, RequestException, ValueError

try:
    # Invoke a Cloudant method request
except ConnectionError as cerr:
    print("Connection error occurred:")
    print(cerr)
except ReadTimeout as rt:
    # The server did not send any data in the allotted amount of time.
    print("Read timed out:")
    print(rt)
except RequestException as re:
    # Handle other request failures
    print("Request Exception:")
    print(re)
except ValueError as ve:
    print("Invalid argument value:\n" + ve.message)
```

The screenshot shows the IBM Cloudant API documentation page for Python, specifically the "Auditing" section. The left sidebar contains a navigation menu with the following items: Overview, Introduction, Endpoint URLs, Authentication, Auditing (selected), Event tracking, Error handling, Additional headers, Rate limits, Related APIs, and Logging. The main content area is titled "Auditing" and contains the following text:

Calling this method generates the following auditing event.

- `cloudantnosql.db.cluster-membership.read`

The right sidebar shows a code editor with Python code for making a request:

```
from ibmcloudant.cloudant_v1 import CloudantV1

service = CloudantV1.new_instance()

response = service.get_membership_information().get_result()

print(response)
```

Thus we created database in cloudant db.