

[R] 101 Fundamentals

Introduction to Rockset

Agenda

1. What Is Rockset?
2. Core Concepts
3. Anatomy of a collection
4. Integrations
5. CRUD Operations
6. Transformations
7. Query Lambdas

What is Rockset?



What is Rockset?

A Rockset is a real-time database that is completely serverless.

Concepts

Collection: A grouping of Rockset documents. A collection is the equivalent of an RDBMS table. A collection exists within a single database. Collections do not enforce a schema.

Workspace: A workspace is a container that can hold collections, Query Lambdas and other workspaces. Workspaces are analogous to folders whereas collections and Query Lambdas are analogous to files. Every resource must be part of exactly one workspace.

Integrations: Rockset provides click-and-connect integrations that automatically synchronizes with the data source, like Kafka or Dynamo DB. Collections are schemaless.

Query Lambdas: We make it easy to build and share with Query Lambdas, named parameterized SQL statements that are executed from REST endpoints, so raw SQL never has to live in application code.

Anatomy of a collection

Stores 1 or more documents

Schemaless ingest

Can have 1 or more integrations

Has a retention policy

Can be queried via SQL

Integrations

New Collection

Select your Data Source

The data source you choose will be used to load data into your Rockset collection.
Don't see the source you're looking for? [Tell us about it.](#)

Search



Amazon DynamoDB



Amazon Kinesis



Amazon Redshift



Amazon S3



Apache Kafka



File Upload



Google Cloud Storage



MongoDB



Sample Datasets



Write API

Document CRUD Operations

Create

```
curl --request POST \
  --url [URL] \
  -H 'Authorization: ApiKey api key' \
  -H 'Content-Type: application/json' \
  -d '{
    "data": [
      {}
    ]
  }'
```

Read (run a query)

```
curl --request POST \ --url [URL] -H 'Authorization:
ApiKey api key' \ -H 'Content-Type: application/json' \
-d '{
  "sql": {
    "parameters": [{
      param = "param"
    }],
    "query": "SELECT * FROM foo where _id = :_id"
  }
}'
```

Update

```
curl --request PATCH \ --url [URL] \
  -H 'Authorization: api key' \ -H 'Content-Type:
application/json' \ -d '{"data": [{
  "_id": "ID",
  "patch": [
    {
      "op": "add",
      "path": "/foo/bar",
      "value": "baz"
    }
  ]
}]}'
```

Delete

```
curl --request DELETE \ --url [URL] \ -H
'Authorization: ApiKey api key' \ -H
'Content-Type: application/json' \
-d '{ "data": [
  { "_id": "ID"
  }
]}'
```

Transformations

▼ Transformations (1)

Optionally apply transformations to incoming data, such as masking sensitive data.

Transformation Type

Dropped Field ▼

Dropped Field

Masked Field

Custom Transformation

Drop field

True

Dropped Field: One or more document fields can be dropped at ingest time.

Masked Field: Fields can be masked by applying hashing algorithms e.g. to support PII use cases

Custom Transformation: SQL can be applied at ingest time to overwrite or create new fields. For example, to convert types:

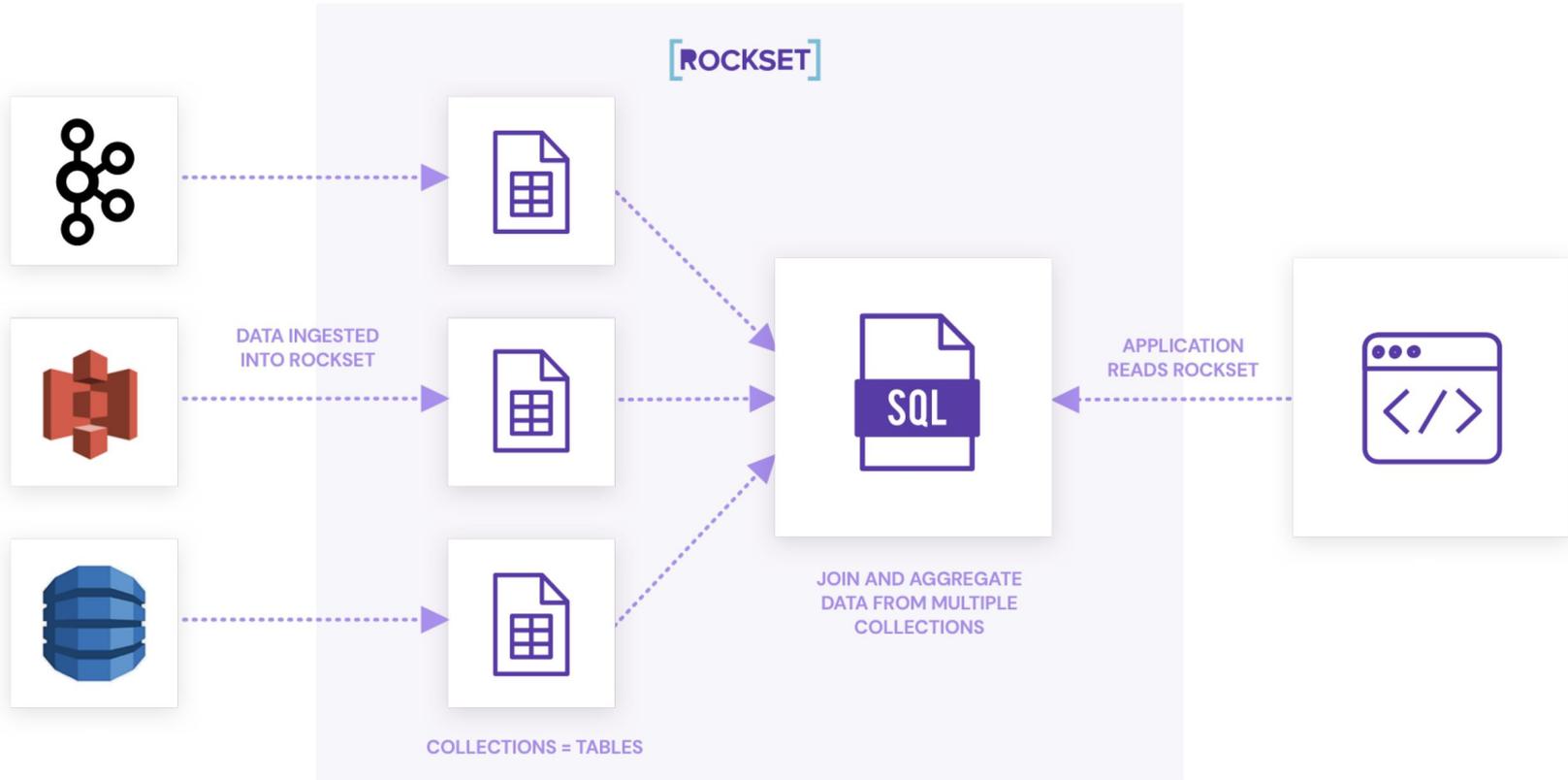
```
sql: 'CAST(:config_version as string)'
```

Query Lambdas

Query Lambdas are named parameterized SQL queries stored in Rockset that can be executed from a dedicated REST endpoint.

[SELECT count(*)] ⇒ API endpoint

How your stack can integrate with Rockset



Let's Build Something Great

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[@heyerrbody](#)
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Workshop Time

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Let's Demo the Console

BUILD apps with the SDKs- **DEMO**