

(Constructs K.F: Part 1)

(Debezium)

(Supported Databases)

- * MySQL
 - * PostgreSQL
 - * Oracle DB
 - * SQL Server
 - * DB2
 - * Vitess
 - * MongoDB
 - * Cassandra 3
 - * Cassandra 4
- ⇒ SQL

(Kafka Connect)

Kafka Connect helps to quickly transfer data between Kafka and other systems or vice-versa.

Kafka connect operate as a separate service beside the Kafka broker.

[Kafka Connect can pull or push data from Kafka].

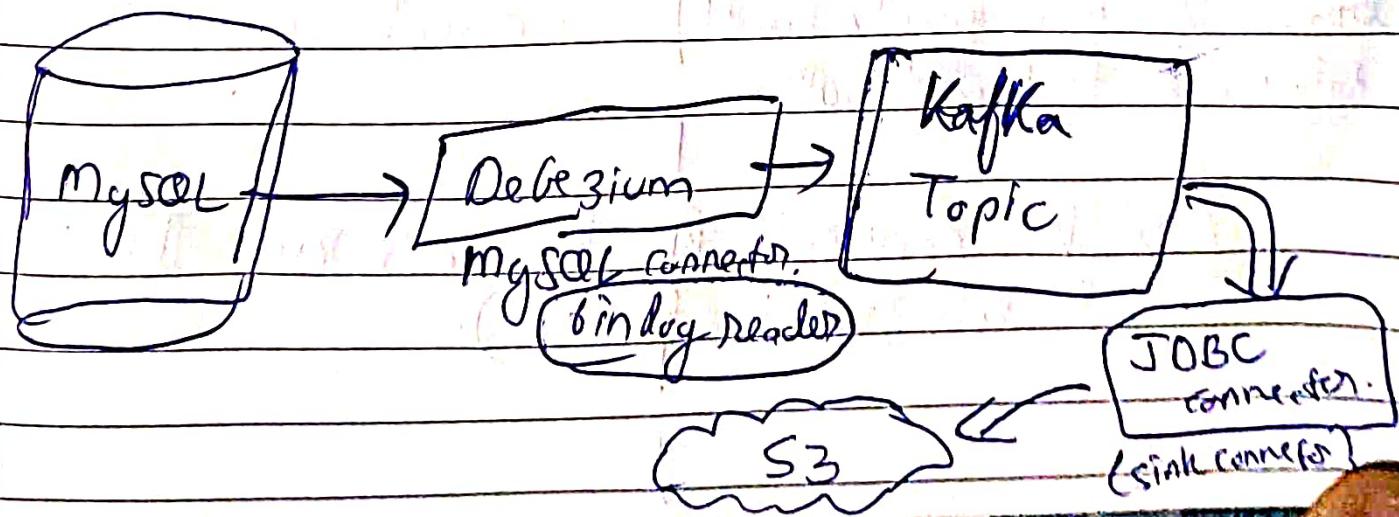
Kafka Connect runs with streaming as well as batch oriented fashion.

Type of Connectors.

- * Source Connectors → { From databases (which is the actual transactional database) to Kafka Topic }
- * Sink Connectors → { take data from Kafka topics and dump into S3, delta lake or HDFS }.

Where does Debezium sits in?

Its a source connector which connects the transactional database to Kafka Topic.



Getting more insights b/w Debezium and Kafka connect.

Kafka Connect → It's a connector runtime framework which runs the process.

(Think of it like tomcat or docker).

Now Debezium → Contains the cdc logic and gets loaded by Kafka Connect.

Kafka Connect

* Connector runtime/
framework

* Provider functionalities
like offset management, fault
tolerance, task distribution.

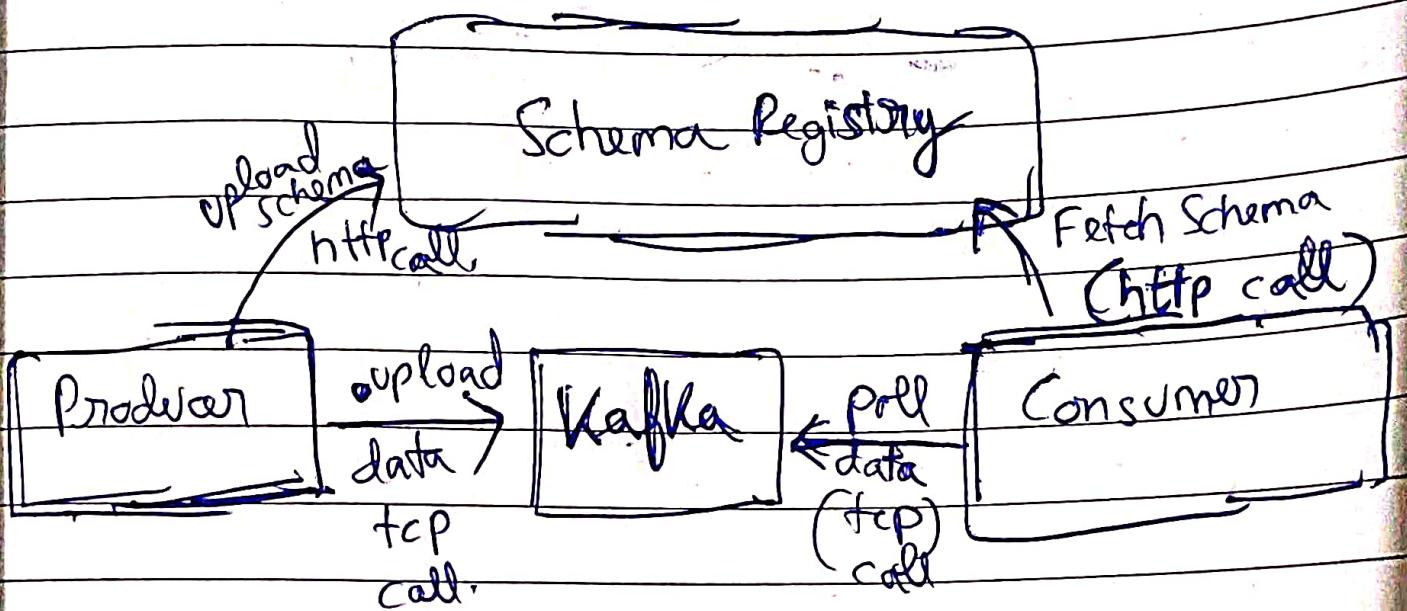
Debezium MySQL

→ containing the cdc
logic

* Implements Source
Connector interface

(Kafka Connect loads and runs the
debezium classes).

~~Constructs (Kafka Part 2)~~



Note, how uploading schema to the Schema Registry is http call.
Well, its because

- 1). It does not happen often, i.e. Schema does not change much ~~during the event~~
- 2). Consumer ~~fetches~~ caches the schema to avoid network call for each batch from Kafka fetch.