Company Name: FirstEigen

Name: Aishwarya Patil

Joining date: 27th December, 2021

College: AISSMS COE, Pune

Year & Department: Third Year, Computer Dept.

**Couchbase Learnings**

**What is Couchbase?**

* NoSQL Database
* Semi-Structured format
  + JSON data
  + Binary data
* Data Storage in Key-Value Pair in Couchbase server
* Fetch data based on Primary or Secondary key

**Features/ Benefits :-**

* Memory First Architecture
* Read & write operations are fast
* Provides low latency
* Distributed Database
* Scalability
* Fault Tolerance

DATA :-

* JSON document
* Key value pair
* Flexible schema
* Dynamic schema

BUCKETS :-

* Create different buckets for each database division
* Create only 10 buckets but can store any number & type of documents data

Memory and Storage :-



INDEXING:-

* Primary Index - data fetched based on primary key like EmpID
* Secondary Index - data fetched based on secondary data like firstName, DOB,etc.
* Composite secondary index - combination of two or more secondary index
* Array index - used when we want to search specific data inside the array data type database
* Full Text Index - special index where we have to search across the whole document for any text

**Key Value Operations:-**

1. Upsert
2. Insert
3. Retrieving documents
4. Replace
5. Remove

**Managing Connections using the Java SDK with Couchbase Server:-**

* Connecting to a Cluster
* Cluster Environment
* Connection Strings
* Connection Lifecycle

Reference:

<https://docs.couchbase.com/java-sdk/current/hello-world/start-using-sdk.html>