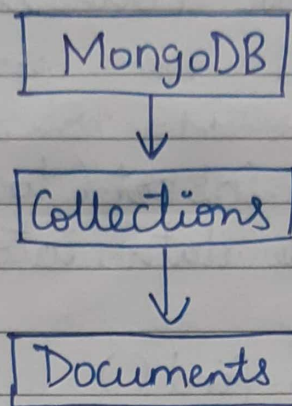# MONGO DB

→ MongoDB is a NoSQL database which stores the data in form of key-value pairs. It is an Open Source, Document Database which provides high performance and scalability along with data modelling and data management of the huge sets of data in enterprise application.

→ It was developed by <u>Eliot Horowitz and Dwight Merriman</u>

* Key Features -

1) High performance.

2) Rich Query Language.

3) Supports all major CRUD operations.

4) Auto Replication.

5) High Availability.

6) Sharding.

7) Supports Multiple Storage Engines.

→ Overview Structure -

```
┌─────────┐
│ MongoDB │
└─────────┘
     │
     ▼
┌─────────────┐
│ Collections │
└─────────────┘
     │
     ▼
┌───────────┐
│ Documents │
└───────────┘
```

→ COMMANDS -

1> Show dbs
   To check the list of databases.

2> use DATABASE NAME
   To create database otherwise it will return
   the existing database.

3> db.drop Database ()
   To delete the selected database.

4> db.create Collection (name, options)
   To create Collections

5> show collections
   To check the list of collections.

6> db. Collection. drop ()
To drop a collection from the database.

7> db. Collection. insert (document)
To insert data into the collection.

8> db. Collection. find ()
To display all the documents in an unstructured way.

9> db. Collection. find(). pretty ()
To display all the documents in a structured way.

10> db. Collection. update (selection_criteria, updated_data)
To update the values in the existing document.

11> db. Collection. save (selection_criteria, New_data)

The save method replaces the existing document with the new document passed in the save() method.

12> db. collection. remove (deletion_criteria)
     To remove a document from the
     collection.
     It can be contain two optional parameters
     i> deletion_criteria-
     ii> justOne - if set to true or 1, then remove
                only one document.

13> $ and , $or , $gt, $lt, $not, $nor, $regex
     $all, $elementMatch, $size
     - Operators

14> db. collection . find() . limit (Number)
     To limit the records in the database.

15> db. collection . find (). limit (Number). skip (Number)
     To skip the number of documents.

16> db. collection . find (). Sort ({KEY}: 1})
     To sort the documents in the database
     To specify sorting order 1 and -1 are used for
     ascending order or descending order resp.

17> $where

    To specify the required condition.

Eg: db. collection.find ({ $where : function ( ) {
    return (obj. english == obj. science)}}). pretty)