**My Report on MongoDB**

1. Introduction to MongoDB

First I understand MongoDB is a **NoSQL** database and stores data in **JSON** format.

1. Basic concept

MongoDB structure consists of **Collections** and **Documents** .I was guided to register for an Atlas account, download MongoDB to my computer and connect to mongoshell. Next download and connect to compass.

1. Basic Commands  
    Basic commands for managing and manipulating Documents and Collections like : show dbs, use database, dropDatabase(),show collection, createCollection(“”),insertOne() insert one document, insertMany() insert multiple documents.  
    Statements to query like : db.collection.find(), db.collection.updateOne(),db.collection.updateMany(),db.collection.deleteOne(),db.collection.updateMany().

Logical operators : $eq: Equal , $ne: Not equal , $gt: Greater than, $gte: Greater than or equal , $lt: Less than , $lte: Less than or equal , $in: In list , $nin: Not in list.

Use indexes to optimize query performance : createIndex(),getIndex().

1. MongoDB with Python.

I was guided to use **pymongo** library. Connect python to MongoDB using MongoDB driver.

5.Aggregation Pipeline

Use the $match, $group, **$lookup**, $sort, $limit, $merge,$unwind operators.

Relationships in mongoDB : one-to-one (embedding and reference), one-to-many(embedding and reference) , many-to-many(reference).

\*Note: This is definitely not everything but that is what I can remember after completing 2 courses.