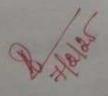
Name: S. Pravin

Roll.no: 22-CS-257

class: III - B& [cs]-B

topic: Mongo DB and 9ts queries

Date: 07/02/2025



Introduction to MangoDB

Hongo DB is a Nosque, documentariented database designed for
Scalability, flexibility, and Penformance.
Scalability , flexibility, and Penformance.
Unlike traditional SQL databases
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Hongo DB Stories data in Json-like

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Hongo DB Stories data in Json-like

Analytics, and Cloud compured-time analytics, and Cloud compured-time

Key Features of MongoDB:

→ NOSQL Database - Does not use tables

SQL queries.

→ Document-Based-Stones data in
BBON LSimilar to JSON.

-> Schema - less - Flexible Storucture, unlike velational databases

-> Scalable & High Penformance - Supposits

Scaling with Shanding

Harizontal

Aggregation Framework - Helps with complex data analytics.

Basic MongoDB Queries

1. Insent Data (create Documents)

299 ingle Document.

db. Students. insertone (f name: "John", age: 22, course: "Bsc Cs"g)

DInsent multiple bocuments

db. Students. Inscritmany ([

Ename: 'Altce', age: 17, course: "Bsc Cs"3,)
Ename: Bob", age: 23, course: "MCA" 9

7)

2. Read Data (Find Documents)

db. Students find ()

db. Students.frnd ({g, ?name:1, age:1,

Retrieve all document with conditing.

db-Students find (Eage. { \$91:2133)

Finding Specific condition

db. Products find (?color: "blue"3)

product collection where the colors field us "blue".

3) update Pata

- supdate one document

db. students · apolateone(& name: "John"s {4set: {age: 2333)

→ update multiple documents

db. Students. update Many ({ course:

"Bse cs" } & \$set: { Status: "Active } })

4) Delete Data

-> Delete one document:

dib. students. deleteone (Sname: "Alice"

-> Delete multiple document:

db. Students, deleterany (9 course:

Aggregation Loata Analysis queries) - calculate the average age Students: db. students . aggregate ([{ \$group; {_ia: hull, avg49e: \$ \$avg : " fage " 339]]) the number of students -> count course? each in db. Students, aggregate (C } \$ \$ group: { -id: "\$course", count: & \$ sum 1 99 9. -> Find the oldest Student db. Students, find W. Sout (& age: -19) · limit (1) -> Mongo DB 18 a Powerful Nosqu database for bigdata, real-time application wed analytics. Mongoog is most.

Database.

and

widely