

## 1. What is MongoDB?

MongoDB is a NoSQL database that stores data in flexible, JSON-like documents (BSON format). It is designed for scalability, high performance, and flexibility.

## What is a MongoDB Cluster?

A cluster is a group of servers that store your data. In MongoDB Atlas, a cluster is a cloud-hosted database environment where your databases run.

## 2. What are ORM methods?

ORM (Object Relational Mapping) methods are functions used to interact with relational databases using objects instead of SQL queries. Example methods: `create()`, `find()`, `update()`, `delete()`.

## 3. What is ODM? Why do we use it?

ODM (Object Document Mapping) is similar to ORM but used for NoSQL databases like MongoDB. It maps JavaScript objects to MongoDB documents. We use it to simplify database operations and enforce schema validation.

## 4. What is Mongoose? Why do we use it?

Mongoose is an ODM library for MongoDB and Node.js. It provides schema-based modeling, validation, middleware, and easy database operations.

## 5. What is DB?

DB (Database) is an organized collection of data that can be stored, managed, and retrieved electronically.

## 6. How to connect DB in Node.js and show connected message?

Example:

```
import mongoose from "mongoose";

mongoose.connect(process.env.MONGO_URI)

.then(() => console.log("Database Connected Successfully"))

.catch((err) => console.log("Database Connection Failed", err));
```

## 7. Difference between SQL and NoSQL:

### SQL:

- Structured tables (rows & columns)
- Fixed schema
- Uses SQL queries
- Example: MySQL, PostgreSQL

### NoSQL:

- Flexible schema
- Stores documents, key-value, graph, etc.
- Scalable and faster for large data
- Example: MongoDB

## 8. What is Collections?

A collection in MongoDB is like a table in SQL. It stores multiple documents.

## 9. What is Document in MongoDB?

A document is a single record stored in MongoDB. It is stored in JSON-like format (BSON).

## 10. What is MongoDB Compass? Why do we use it?

MongoDB Compass is a graphical user interface (GUI) tool for MongoDB. It helps to view, edit, and manage databases visually instead of using command line.