

MongoDB – Important Questions and Answers

1. What is MongoDB? What is a MongoDB Cluster?

MongoDB is a NoSQL database that stores data in JSON-like format (BSON). It uses collections and documents instead of tables and rows.

MongoDB Cluster: A group of MongoDB servers that work together to provide high availability, scalability, and backup support.

2. What are ORM Methods?

ORM stands for Object Relational Mapping. It is used in SQL databases to convert database tables into objects.

Common methods: `create()`, `find()`, `update()`, `delete()`.

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

ODM stands for Object Document Mapping. It is used for NoSQL databases like MongoDB. We use ODM for schema validation, easy data handling, cleaner code, and built-in CRUD operations.

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

Mongoose is an ODM library for MongoDB in Node.js. We use it for schema creation, validation, middleware support, and CRUD operations.

5. What is DB?

DB (Database) is an organized collection of data stored and managed systematically.

6. How to connect DB in Node.js?

Example:

```
mongoose.connect("mongodb://127.0.0.1:27017/mydb")
  .then(() => console.log("Database Connected Successfully"))
  .catch((err) => console.log("Database Connection Failed", err));
```

7. Difference between SQL and NoSQL:

SQL: Table-based, fixed schema, uses SQL queries (Example: MySQL).

NoSQL: Document-based, flexible schema, uses JSON format (Example: MongoDB).

8. What is Collection?

A Collection is similar to a table in SQL. It stores multiple documents.

9. What is Document in MongoDB?

A Document is a single record inside a collection stored in JSON-like format.

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

MongoDB Compass is a GUI tool for MongoDB used to view databases, insert/edit documents, run queries, and manage collections.