



50 MYSQL THEORY INTERVIEW QUESTIONS

SECTION 1: BASICS

Q1. What is MySQL, and how is it different from other databases?

MySQL is an open-source relational database management system used to store and manage data in the form of tables. Each table contains rows and columns, and we use SQL (Structured Query Language) to perform operations like fetching, inserting, updating, and deleting data.

For example,

```
SELECT * FROM users;
```

This query is used to get all records from the "users" table.

MySQL is different from other databases mainly in how it stores data. It follows a structured, table-based format (relational), whereas databases like MongoDB store data in a flexible, document-based format (non-relational).

Also, MySQL is free and beginner-friendly, while some databases like Oracle are paid and more complex. Compared to PostgreSQL, MySQL is easier to use but PostgreSQL is often better for handling complex queries.

In short, MySQL is widely used in web applications because it is simple, fast, and reliable.

Interview Answer:

MySQL is an open-source relational database management system that stores data in structured tables using rows and columns. It uses SQL to perform operations like retrieving and updating data. Unlike databases like MongoDB, which use a flexible document-based structure, MySQL follows a fixed schema. It is widely used in web applications due to its simplicity and reliability.

Q2. What are the different types of SQL commands?

SQL commands are used to perform different operations in a database and are mainly divided into five types: DDL, DML, DQL, DCL, and TCL.

- ❖ DDL (Data Definition Language) is used to define or modify the structure of the database, such as CREATE, ALTER, and DROP.
- ❖ DML (Data Manipulation Language) is used to insert, update, and delete data, using commands like INSERT, UPDATE, and DELETE.
- ❖ DQL (Data Query Language) is used to retrieve data from the database using the SELECT statement.

For example:

```
SELECT * FROM users;
```

This query fetches all records from the "users" table.

- ❖ DCL (Data Control Language) is used to manage permissions, such as GRANT and REVOKE.
- ❖ TCL (Transaction Control Language) is used to manage transactions, including COMMIT and ROLLBACK.

Interview Answer:

SQL commands are categorised into five types: DDL, DML, DQL, DCL, and TCL. DDL is used to define database structure, DML is used to modify data, and DQL is used to retrieve data using SELECT. DCL handles permissions, and TCL manages transactions like COMMIT and ROLLBACK.

Q3. Difference between DDL, DML, DCL, TCL?

- ❖ SQL commands are divided based on their purpose in database operations.
- ❖ DDL (Data Definition Language) is used to define or modify the structure of the database, such as creating or deleting tables. Examples: CREATE, ALTER, DROP.