**MySQL(Structured Query Language):**

**\*Having vs where?**

WHERE is used to select data in the original tables being processed. **HAVING** is used to filter data in the result set that was produced by the query. This means it can reference aggregate values and aliases in the SELECT clause.

**\*Delete vs truncate?**

Although **TRUNCATE** TABLE is similar to **DELETE** , it is classified as a DDL statement rather than a DML statement. ... **Truncate** operations **drop and** re-create the table, which is much faster than **deleting** rows one by one, particularly for large tables. **Truncate** operations cause an implicit commit, **and** so cannot be rolled back.

**\*Can we store data in views?**

**Views do** not actually **store** any **data**. Instead, they **store** predefined queries that return a result set. Because **MySQL views** look and function like regular tables, they are sometimes called virtual tables.

**\*Cross join vs natural join?**

**Natural Join** joins two tables based on same attribute name and datatypes.

In Natural Join, The resulting table will contain all the attributes of both the tables but keep only one copy of each common column

In Natural Join, If there is no condition specifies then it returns the rows based on the common column  
SYNTAX:  
SELECT \* FROM table1 NATURAL JOIN table2;

**Cross Join** will produce cross or cartesian product of two tables

In Cross Join, The resulting table will contain all the attribute of both the tables including duplicate columns also

In Cross Join, If there is no condition specifies then it returns all possible pairing of rows from both the tables whether they are matched or unmatched

SYNTAX:  
SELECT \* FROM table1 CROSS JOIN table2;

**\*What are Integrity constraints?**

**Integrity constraints** are a set of rules. It is used to maintain the quality of information. **Integrity constraints** ensure that the data insertion, updating, and other processes have to be performed in such a way that data **integrity** is not affected.

**\*Purpose of merge in sql?**

The **MERGE** statement is used to make changes in one table based on values matched from anther. It can be used to combine insert, update, and delete operations into one statement. ... You can start at the beginning by reading Introduction to **SQL** Server Data Modification Statements.

**\*What are sql optimization tehniques?**

* Define business requirements first. ...
* SELECT fields instead of using SELECT \* ...
* Avoid SELECT DISTINCT. ...
* Create joins with INNER JOIN (not WHERE) ...
* Use WHERE instead of HAVING to define filters. ...
* Use wildcards at the end of a phrase only.

**\*Execution plan in sql?**

An **execution plan in SQL** Server is a simple graphical representation of the operations that the **query** optimizer generates to calculate the most efficient way to return a set of results

**\*Write query for fetching second highest salary from table?**

IN **SQL** Server using Common **Table** Expression or CTE, we can find the **second highest salary**: WITH T AS ( SELECT \* DENSE\_RANK() OVER (ORDER BY **Salary** Desc) AS Rnk FROM Employees ) SELECT Name FROM T WHERE Rnk=2; How to find the third largest **salary**?

**\*Can we write sub query in update?**

The FROM clause of a **subquery** in the WHERE clause of the **UPDATE** statement **can** specify as a data source the same table or view that the Table Options clause of the **UPDATE** statement specifies. The **subquery** either returns a single row, or else has no correlated column references

### \*What is the difference between MySQL and SQL?

SQL is known as the standard query language. It is used to interact with the database like MySQL. MySQL is a database that stores various types of data and keeps it safe.

SQL is a computer language, whereas MySQL is a software or an application

SQL is used for the creation of database management systems whereas MySQL is used to enable data handling, storing, deleting and modifying data.

**\*Why do we use the MySQL database server?**

The MYSQL server is free to use for developers and small enterprises. MySQL server is open source.

Tables are a way to represent the division of data in a database while the database is a collection of tables and data.

### \*What are DDL, DML, and DCL?

Majorly SQL commands can be divided into three categories, i.e., DDL, DML & DCL. Data Definition Language (DDL) deals with all the database schemas, and it defines how the data should reside in the database. Commands like CreateTABLE and ALTER TABLE are part of DDL.

Data Manipulative Language (DML) deals with operations and manipulations on the data. The commands in DML are Insert, Select, etc.

Data Control Languages (DCL) are related to the Grant and permissions. In short, the authorization to access any part of the database is defined by these.

### \*What is the difference between primary key and candidate key?

To identify each row of a table, we will use a primary key. For a table, there exists only one primary key.

A candidate key is a column or a set of columns, which can be used to uniquely identify any record in the database without having to reference any other data.

### What are federated tables?

Federated tables are tables that point to the tables located on other databases on some other server.