SQL INTERVIEW QUESTIONS

1. **What is SQL?**

SQL stands for Structured Query Language, and it is used to communicate with the Database.  This is a standard language used to perform tasks such as retrieval, updating, insertion and deletion of data from a database.

1. **What is a primary key?**
2. **What is a unique key?**
3. **What is a foreign key?**
4. **What is a join?**
5. **What are the types of join and explain each?**
6. **What types of SQL operators do you know?**
7. **What is normalization?**

Normalization is the process of minimizing redundancy and dependency by organizing fields and table of a database.

The main aim of Normalization is to add, delete or modify field that can be made in a single table.

1. **What are all the different normalizations?**
2. **What is a query?**

A DB query is a code written in order to get the information back from the database.

Query can be designed in such a way that it matched with our expectation of the result set. Simply, a question to the Database.

1. **What is subquery?**
2. **What is a clause?**

A condition imposed on a SQL query to filter the data to obtain the desired result. Some examples are WHERE, LIMIT, HAVING, LIKE, AND, OR, ORDER BY, etc

1. **How to select all columns from a table?**

Using the asterisk \* with the SELECT statement. The syntax is: SELECT \* FROM table\_name;

1. **What is NULL value? How is it different from zero or a blank space?**

A NULL value indicates the absence of data for a certain cell of a table. Instead, zero is a valid numeric value, and an empty string is a legal string of zero length

### What is the difference between a primary key and a unique key?

### Difference between WHERE and HAVING clause.

### Difference between SRF and MRF.

1. **What is the difference between DELETE and TRUNCATE commands?**

DELETE command is used to remove rows from the table, and WHERE clause can be used for conditional set of parameters.

Commit and Rollback can be performed after delete statement.

TRUNCATE removes all rows from the table. Truncate operation cannot be rolled back.

1. **What is a constraint?**

Constraint can be used to specify the limit on the data type of table.

Constraint can be specified while creating or altering the table statement.

1. **What is Self-Join?**

Self-join is set to be query used to compare to itself.

1. **What is Cross-Join?**

Cross join defines as Cartesian product where number of rows in the first table multiplied by number of rows in the second table.

1. **What is an ALIAS command?**
2. **What is the difference between TRUNCATE and DROP statements?**

TRUNCATE removes all the rows from the table, and it cannot be rolled back.

DROP command removes a table from the database and operation can be revert back.

1. **What are aggregate functions?**

Aggregate functions are used to evaluate mathematical calculation and return single values. This can be calculated from the columns in a table.

1. **How to select unique records from a table?**

Select unique records from a table by using DISTINCT keyword.

Select DISTINCT Student ID, Student Name from Student.

1. **What is the command used to fetch first 5 characters of the string?**

There are many ways to fetch first 5 characters of the string -.

Select SUBSTRING(StudentName,1,5) as student name from student.

1. **Which operator is used in query for pattern matching?**

LIKE operator is used for pattern matching, and it can be used as -.

% - Matches zero or more characters.

\_ (Underscore) - Matching exactly one character.