



SQL Query

Interview Questions



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SQL (DESC & PRACTICAL) :

1. What is Database?

Ans. A database is an organized collection of structured information, or data, typically stored electronically in a computer system. A database is usually controlled by a database management system (DBMS).

2. What is SQL?

Ans. SQL is a structured query language. It is a standard language for accessing and manipulating databases.

3. What are SQL commands?

Ans. There are five types of SQL Commands-

**DDL(Data Definition Language),
DML(Data Manipulation Language),
DQL(Data Query Language),
TCL(Transaction Control Language),
DCL(Data Control Language).**

4. What is the use of UPDATE statement

Ans. UPDATE statement is used when we want to update or change any record. It must be used with WHERE clause if you want to change only one record otherwise it would update the whole record

5. What is primary key?

Ans. Primary key constraint uniquely identifies each record in a table. Primary keys must contain UNIQUE values, and cannot contain NULL values. A table can have only one primary key.



6. Difference between primary key and foreign key?

Ans. A primary key is a unique identifier for each record in a table whereas a foreign key establishes a relationship between tables by referencing the primary key of another table.

7. Difference between primary and unique key?

Ans. a primary key is a key that uniquely identifies each record in a table but cannot store NULL values. In contrast, a unique key prevents duplicate values in a column and can store NULL values.

8. What is char () in sql?

Ans. char() is a datatype which stores character data in a fixed length field.

9. what is the difference between char() and varchar()

Ans. char() stores character of fixed length and the maximum length currently is 255 bytes whereas varchar() is used when the sizes of the column data entries vary considerably. varchar() columns can be up to 65,535 bytes.

10. What is the main difference between update and alter commands in sql?

Ans. The main difference between the two is that the ALTER command adds, deletes, modifies, renames the attributes of the relation, and the UPDATE command modifies the values of the records in the relations.

11. What are the main components of insert statement?

Ans. There are three main components to an insert statement:

- The name of the table into which to add the data
- The names of the columns in the table to be populated
- The values with which to populate the columns



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12. Suppose you have a table named person how would you enter record in this table?

Ans.

```
mysql> INSERT INTO person
-> (person_id, fname, lname, eye_color, birth_date)
-> VALUES (null, 'William', 'Turner', 'BR', '1972-05-27');
Query OK, 1 row affected (0.22 sec)
```

13. What is the difference between group by and order by?

Ans. A GROUP BY statement sorts data by grouping it based on column(s) you specify in the query and is used with aggregate functions. An ORDER BY allows you to organize result sets alphabetically or numerically and in ascending or descending order.

14. what is the difference between drop, delete and truncate?

Ans. The DROP Command drops the complete table from the database.

The DELETE command deletes one or more existing records from the table in the database.

The TRUNCATE Command deletes all the rows from the existing table, leaving the row with the column names.

15. Suppose you have a table named language and you only want to retrieve name column from it how will you proceed.

Ans.

```
mysql> SELECT name
-> FROM language;
+-----+
| name  |
+-----+
| English |
| Italian |
| Japanese |
| Mandarin |
| French |
| German |
+-----+
```



16. Write a query to retrieve unique values from the table flim_actor and sort it.

Ans.

```
mysql> SELECT DISTINCT actor_id FROM film_actor ORDER BY actor_id;
```

actor_id
1
2
3
4
5
6
7
8
9
10
...
192
193
194
195
196
197
198
199
200

200 rows in set (0.01 sec)

17) how you would find all customers with the last name “Smith”:

Ans.

```
SELECT cust_id, fname  
FROM individual  
WHERE lname = 'Smith';
```



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18) What is the use of where clause.

Ans. The WHERE clause is used to filter records. It is used to extract only those records that fulfill a specified condition.

19) Difference between where and having clause?

Ans. The main difference between WHERE and HAVING clause is that the WHERE clause allows you to filter data from specific rows (individual rows) from a table based on certain conditions. Whereas the HAVING clause allows you to filter data from a group of rows in a query based on conditions involving aggregate values.

20) Write a query to create a virtual table.

Ans.

```
mysql> CREATE VIEW cust_vw AS
      -> SELECT customer_id, first_name, last_name, active
      -> FROM customer;
Query OK, 0 rows affected (0.12 sec)
```