SQL Query

Interview Questions

1) why do we define alias in sql?

Ans. when multiple tables are joined in a single query, you need a way to identify which table you are referring to when you reference columns in the select, where, group by, having, and order by clauses. So, by defining alias we can refer to the table easily with a shortcut name.

2) Write a query to retrieve the records from film table whose rating is g and are available for more than 7.

Ans.
```
mysql> SELECT title
    -> FROM film
    -> WHERE rating = 'G' AND rental_duration >= 7;
```

3) What is the AND and OR commands?

Ans. The AND and OR operators are used to filter records based on more than one condition: The AND operator displays a record if all the conditions separated by AND are TRUE. The OR operator displays a record if any of the conditions separated by OR is TRUE.

4) What is the order of execution in sql?

Ans. 1. From
2. Where
3. Groupby
4. Having
5. Select
6. Order by
7. Limit

5) How can you use both AND & OR commands at the same time?

Ans. You should use parentheses to group conditions together. The next query specifies that only those films that are rated G and are available for 7 or more days, or are rated PG-13 and are available 3 or fewer days, be included in the result set:

```
mysql> SELECT title, rating, rental_duration
    -> FROM film
    -> WHERE (rating = 'G' AND rental_duration >= 7)
    ->   OR (rating = 'PG-13' AND rental_duration < 4);
```

6) Retrieve the actor ID, first name, and last name for all actors. Sort by last name and then by first name.

 Ans.

```
•    Select actor_ID, first_name, last_name
     from actors
     order by last_name,first_name ;
```

7) Retrieve the actor ID, first name, and last name for all actors whose last name equals 'WILLIAMS' or 'DAVIS'.

Ans.
```
Select actor_ID, first_name, last_name
from actors
WHERE last_name = 'WILLIAMS' OR last_name = 'DAVIS';
```

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8) Write a query against the rental table that returns the IDs of the customers who rented a film on July 5, 2005 (use the rental.rental_date column, and you can use the date() function to ignore the time component). Include a single row for each distinct customer ID.

Ans.

```
Select distinct customer_id
from rental
WHERE date(rental_date) = '2005-07-05';
```

9) What is the use of NOT operator in sql?

Ans. NOT is a logical operator in SQL that you can put before any conditional statement to select rows for which that statement is false.

10) What is the use of between operator.

Ans. When you have both an upper and lower limit for your range, you may choose to use a single condition that utilizes the between operator rather than using two separate conditions.

11) Write a query where amount is in the range of 10 to 11.99.

Ans.

```
mysql> SELECT customer_id, payment_date, amount
    -> FROM payment
    -> WHERE amount BETWEEN 10.0 AND 11.99;
```

_____

12) Write a query where whose last name falls in between FA and FR:

Ans.

```
mysql> SELECT last_name, first_name
    -> FROM customer
    -> WHERE last_name BETWEEN 'FA' AND 'FR';
```

13) What is the use of IN operator.

Ans. With the in operator, you can write a single condition no matter how many expressions are in the set.

14) What are tables and fields?

Ans. In a table, there are rows and columns, with rows referred to as records and columns referred to as fields.

15) Write a query for retrieving all the customers whose last_name starts with 'Q' or 'Y

Ans.

```
mysql> SELECT last_name, first_name
    -> FROM customer
    -> WHERE last_name LIKE 'Q%' OR last_name LIKE 'Y%';
+--------------+------------+
| last_name    | first_name |
+--------------+------------+
| QUALLS       | STEPHEN    |
| QUIGLEY      | TROY       |
| QUINTANILLA  | ROGER      |
| YANEZ        | LUIS       |
| YEE          | MARVIN     |
| YOUNG        | CYNTHIA    |
+--------------+------------+
```

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16) Write a query for customer_id <> 5 AND (amount > 8 OR date(payment_date) = '2005-08-23')?

Ans.

```
SELECT *
FROM your_table_name
WHERE customer_id <> 5 AND (amount > 8 OR date(payment_date) = '2005-08-23');
```

17) Write a query for customer_id = 5 AND NOT (amount > 6 OR date(payment_date) = '2005-06-19')

Ans.

```
SELECT *
FROM your_table_name
WHERE customer_id = 5 AND NOT (amount > 8 OR date(payment_date) = '2005-08-23');
```

18) Construct a query that retrieves all rows from the payments table where the amount is either 1.98, 7.98, or 9.98

Ans.

```
SELECT *
FROM payments
WHERE amount IN (1.98, 7.98, 9.98);
```

_____

19) Construct a query that finds all customers whose last name contains an A in the second position and a W anywhere after the A.

Ans.

```
SELECT *
FROM customers
WHERE
    last_name LIKE '_A%W%';
```

20) What is join clause?

Ans. Join clause is used to combine two or more rows based on common columns.

41) How many types of Joins are there?

Ans. 1. Inner Join

2. Left join

3. Right join

4. Full outer join

5. Self join