

Ques 1: SQL type of language

⇒ SQL have 5 types of language:

1. DDL (Data Definition Language) => Define and manage the data structure.
Ex. CREATE, ALTER, DROP, TRUNCATE
2. DML (Data Manipulation Language) => Deals with data manipulation inside tables.
Ex. SELECT, INSERT, UPDATE, DELETE
3. DCL (Data Control Language) => Control access and permission.
Ex. GRANT, REVOKE
4. TCL (Transaction Control Language) => Manage transactions within a DBMS.
Ex. COMMIT, ROLLBACK, SAVEPOINT
5. DQL (Data Query Language) => Use to fetch data from database.
Ex. SELECT

Ques 2: DBMS vs RDBMS

- ⇒ Structure => DBMS store data in file and non-tabular format whereas RDBMS in tables with relationships.
- ⇒ Data Relationship => DBMS have no relation and RDBMS use foreign key for relationship.
- ⇒ Example => DBMS = XML, Microsoft access and RDBMS = MySQL, PostgreSQL, SQL Server.

Ques 3: functions (string function)

⇒ SQL provides various string function to manipulate text data. Some are:

1. LENGTH() = returns string length
2. LOWER() = converts to lowercase
3. UPPER() = converts to uppercase
4. SUBSTRING() = extracts part of a string
5. CONCAT() = combined string
6. TRIM() = remove spaces from both sides
7. LTRIM() = remove spaces from the left
8. RTRIM() = remove spaces from the right
9. REPLACE() = replace a substring
10. CHARINDEX() = finds position of a substring

The `LIKE` operator is used to search for a specified pattern in a column. It is used in the `WHERE` clause of the `SELECT` statement.

1. 😊

You can use `WHERE name LIKE 'B%'` to find the countries that start with "B".

- The % is a *wild-card* it can match any characters

Find the country that start with Y

```
SELECT name FROM world
WHERE name LIKE 'Y%'
```

Submit SQL

restore default

Correct answer

name
Yemen

2. 😊

Find the countries that end with y

```
SELECT name FROM world
WHERE name LIKE '%y'
```

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Correct answer

name
Turkey
Germany
Hungary
Italy
Norway
Vatican City
Paraguay

3. 😊

Luxembourg has an **x** - so does one other country. List them both.

Find the countries that contain the letter x

```
SELECT name FROM world
WHERE name LIKE '%x%'
```

Correct answer

name
Luxembourg
Mexico

4.



Iceland, Switzerland end with **land** - but are there others?

Find the countries that end with land

```
SELECT name FROM world
WHERE name LIKE '%land'
```

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Correct answer

name
Swaziland
Thailand
Finland
Iceland
Ireland
Poland
Switzerland

5.



Columbia starts with a **C** and ends with **ia** - there are two more like this.

Find the countries that start with C and end with ia

```
SELECT name FROM world
WHERE name LIKE 'C%ia'
```

Correct answer

name
Cambodia
Colombia
Croatia

6.



Greece has a double **e** - who has a double **o**?

Find the country that has oo in the name

```
SELECT name FROM world
WHERE name LIKE '%oo%'
```

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Correct answer

name
Cameroon

7.



Bahamas has three **a** - who else?

Find the countries that have three or more a in the name

```
SELECT name FROM world
WHERE name LIKE '%a%a%a%'
```

Correct answer

name
Central African Republic
Equatorial Guinea
Madagascar
Mauritania

8.



India and Angola have an **n** as the second character. You can use the underscore as a single character wildcard.

```
SELECT name FROM world
WHERE name LIKE '_n%'
ORDER BY name
```

Find the countries that have "t" as the second character.

```
SELECT name FROM world
WHERE name LIKE '_t%'
ORDER BY name
```

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Correct answer

name
Ethiopia
Italy

9.



Lesotho and Moldova both have two o characters separated by two other characters.

Find the countries that have two "o" characters separated by two others.

```
SELECT name FROM world
WHERE name LIKE '%o__o%'
```

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Correct answer

name
Congo, Democratic Republic of
Congo, Republic of
Lesotho
Morocco
Sao Tomé and Príncipe
Mongolia
Moldova

10.



Cuba and Togo have four characters names.

Find the countries that have exactly four characters.

```
SELECT name FROM world
WHERE name LIKE '____'
```

Correct answer

name
Chad
Mali
Togo