**SQL Interview Questions – Part 2**

1. **List the different types of relationships in SQL and give examples.**

There are three main types of relationships in SQL:

* one-to-one: A one-to-one relationship in a database occurs when each row in table 1 has only one related row in table 2. For example, a department can only have only one head of department.
* one-to-many/many-to-one: A one-to-many relationship occurs when one record in table 1 is related to one or more records in table 2. For example, orders and the customer who placed them or student and their class.
* many-to-many: A many-to-many relationship occurs when multiple records in one table are related to multiple records in another table. For example, products and suppliers: one supplier may deliver one or many products and at the same time, the company may order one product from one or many suppliers.

1. **What is Normalization?**

Normalization is the process of organizing data in a database. It includes creating tables and establishing relationships between those tables according to rules designed both to protect the data and to make the database more flexible by eliminating redundancy and inconsistent dependency.

1. **Modify query to show the population of Germany.**

**Before:**

SELECT population FROM world

WHERE name = 'France'

**After:**

**SELECT population FROM world**

**WHERE name = 'Germany';**

1. **Select the query which gives the name of countries beginning with U.**

**SELECT** name **FROM** world **WHERE** name **LIKE** '%U'

1. **What is a Database?**

**SELECT** name **FROM** world **WHERE** name **LIKE** '%u%'

**SELECT** name **FROM** world **WHERE** name **LIKE** 'U%'

**The correct answer is:**

**SELECT** name **FROM** world **WHERE** name **LIKE** 'U%'

**5. Query:**

**Select the answer which shows the problem with this SQL code - the intended result should be the continent of France:**

Select the answer which shows the problem with this SQL code –

the intended result should be the continent of France:

**SELECT** continent **FROM** world **WHERE** 'name' = 'France'

2. Continent should be “Continent”
3. 'name' should be name
4. 'France' should be "France“
5. 'France' should be France
6. 'France' should be France

**The correct answer is b) - 'name' should be name**

1. **Query: Select the code which shows the countries that end in A or L.**

**SELECT** name **FROM** world **WHERE** name **LIKE** '%a' **OR** 'l%'

**SELECT** name **FROM** world **WHERE** name **LIKE** 'a%' **AND** name **LIKE** 'l%'

**SELECT** name **FROM** world **WHERE** name **LIKE** 'a%' **OR** name **LIKE** 'l%'

**SELECT** name **FROM** world **WHERE** name **LIKE** '%a' **AND** name **LIKE** '%l'

**SELECT** name **FROM** world **WHERE** name **LIKE** '%a' **OR** name **LIKE** '%l'

**The correct answer is:**

**SELECT name FROM world WHERE name LIKE '%a' OR name LIKE '%l'**

**7. Query:A table with numbers and a few black text

Description automatically generated with medium confidence**

Given the table above, select the query which produces this table below.

A table with numbers and letters

Description automatically generated

**SELECT** name, population **FROM** world **WHERE** population **BETWEEN** 1000000 **AND** 1250000

**FROM** name, population **FROM world** **WHERE** population **BETWEEN** 1000000 **AND** 1250000 **SELECT** world

**FROM** world **SELECT** name, population **BETWEEN** 1000000 **AND** 1250000

**The correct answer is:**

**SELECT** name, population **FROM** world **WHERE** population **BETWEEN** 1000000 **AND** 1250000