

## **MySQL Task- World DB**

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

There are 3 main types of relationships in SQL

1. One-to-many or Many-to-one relationships (E.g. relationship between a teacher and the courses they teach)
2. One-to-one relationships (E.g. Each employee has their own unique identity card)
3. Many-to-many relationships (E.g. Order table contains orders placed by multiple customers and a customer may place more than one order)

### **2) What is Normalisation?**

It is a database design technique that reduces data redundancy and eliminates undesirable characteristics like Insertion, Update and Deletion Anomalies.

Normalization rules divide larger tables into smaller tables and link them using relationships. The purpose of Normalisation in SQL is to eliminate redundant (repetitive) data and ensure data is stored logically.

### **3) Modify the query to show the population of Germany.**

```
SELECT population FROM world  
WHERE name = 'Germany';
```

### **4) Select the query which gives the name of countries beginning with U.**

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

### **5) 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'
```

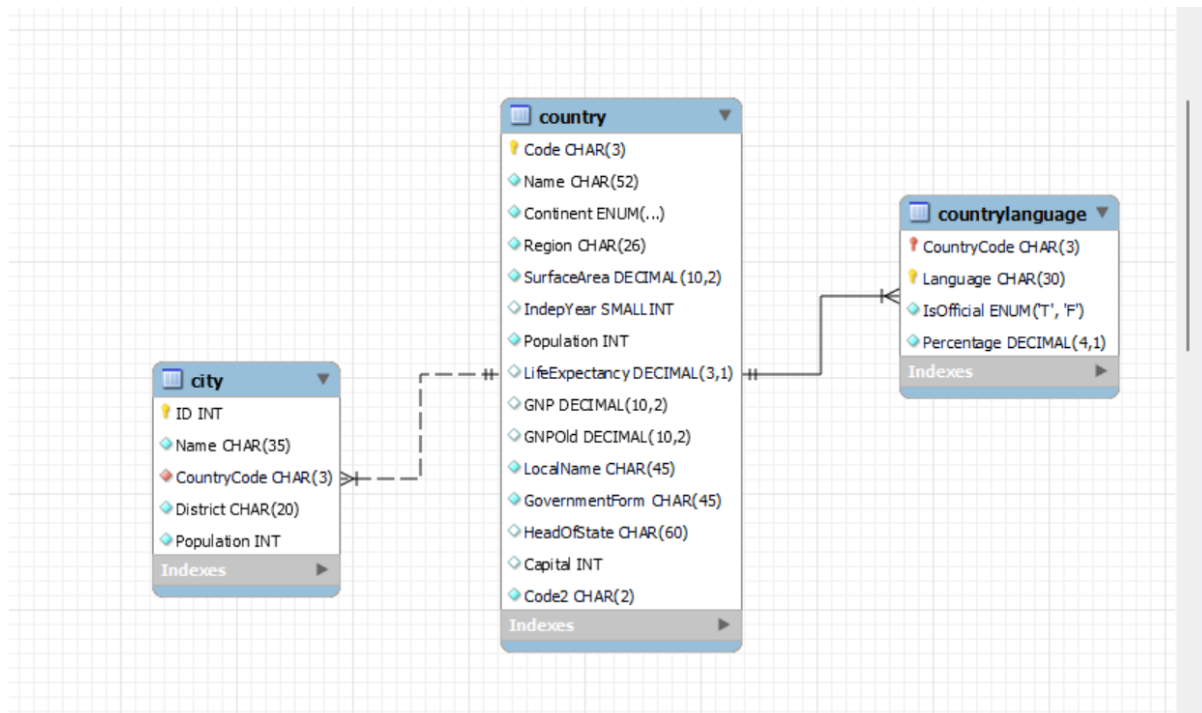
b) 'name' should be name

### **6) Select the code which shows the countries that end in A or L.**

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

### **7) SELECT name, population FROM world**

```
WHERE population BETWEEN 1000000 AND 1250000
```

**Creating an EER Diagram:**

**Identify the primary key in country table.**

Code CHAR (3)

**Identify the primary key in city table.**

ID INT

**Identify the primary key in countrylanguage table.**

Language CHAR (30)

**Identify the foreign key in city table.**

CountryCode CHAR (3)

**Identify the foreign key in countrylanguage table.**

CountryCode CHAR (3)