

SQL LOGICAL QUESTIONS

Scenario: You are given a dataset containing information about global temperatures and CO2 emissions.

Table name: country_pollution

Country	Temperature	CO2 Emissions	Date(Year)
.....

1. Question: Write a query to find the countries with the highest temperatures in the dataset?

```
SELECT Country, MAX(Temperature) AS Highest_Temperature
FROM country_pollution
GROUP BY Country
ORDER BY Highest_Temperature DESC;
```

2. Question: Write a query to identify the countries with the lowest CO2 emissions in the dataset.

```
SELECT Country, MIN(CO2_Emissions) AS Lowest_CO2_Emissions
FROM country_pollution
GROUP BY Country
ORDER BY Lowest_CO2_Emissions ASC;
```

3. Question: Write a query to find all temperature records above a specific value, for example, 20 degrees Celsius.

```
SELECT Country, Temperature, Date
FROM country_pollution
WHERE Temperature > 20;
```

4. Question: Write a query to list all countries with CO2 emissions data available for the year 2020.

```
SELECT DISTINCT Country
FROM country_pollution
WHERE Date = 2020 AND CO2_Emissions IS NOT NULL;
```

5. Question: Write a query to count the total number of temperature records in the dataset.

```
SELECT COUNT(*) AS Total_Temperature_Records
FROM country_pollution
WHERE Temperature IS NOT NULL;
```

6. Question: Write a query to identify any countries with missing temperature data for a specific year, for example, 2015.

```
SELECT DISTINCT Country
FROM country_pollution
WHERE Date = 2015 AND Temperature IS NULL;
```

7. Question: Write a query to find the average temperature for each year in the dataset.

```
SELECT Date AS Year, AVG(Temperature) AS Average_Temperature
FROM country_pollution
GROUP BY Date
ORDER BY Year;
```

8. Question: Write a query to calculate the total CO2 emissions for all countries in the dataset.

```
SELECT SUM(CO2_Emissions) AS Total_CO2_Emissions
FROM country_pollution;
```

9. Question: Write a query to sort the temperature data in descending order based on the temperature values.

```
SELECT Country, Temperature, Date
FROM country_pollution
ORDER BY Temperature DESC;
```