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

   ANS: Select countries, temperature from country_pollution order by temperature desc limit 1;

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

   ANS: Select countries, co2 emissions from country_pollution order by co2 emissions Asc limit 1;

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

   ANS: Select * from countries_pollution where temperature > 20;

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

   ANS: Select distinct country, co2 emissions, date from country_pollution where Extract(year from date) = 2020 and co2 emissions is not null;

5. **Question:** Write a query to count the total number of temperature records in the dataset.
   ANS: Select temperature, count(*) as total_no_temp_record from country_pollution Group by temperature order by total_no_temp_record;

6. **Question:** Write a query to identify any countries with missing temperature data for a specific year, for example, 2015.
   ANS: Select country from country_pollution where temperature
   Is null and extract(year from date) = 2015;

7. **Question:** Write a query to find the average temperature for each year in the dataset.
   ANS: Select date as year, avg(temperature) as avg_temp from country group by date
   Order by date;

8. **Question:** Write a query to calculate the total CO2 emissions for all countries in the dataset.
   ANS: Select country, sum(CO2 emissions) as total_co2_emissions from country_pollution group by country order by total_co2_emissions desc;

9. **Question:** Write a query to sort the temperature data in descending order based on the temperature values.
   ANS: Select * from country_emissions order by temperature desc;