datalab

Humans not only take debts to manage necessities. A country may also take debt to manage its economy. For example, infrastructure spending is one costly ingredient required for a country's citizens to lead comfortable lives. The World Bank is the organization that provides debt to countries.

In this project, you are going to analyze international debt data collected by The World Bank. The dataset contains information about the amount of debt (in USD) owed by developing countries across several categories. You are going to find the answers to the following questions:

- What is the number of distinct countries present in the database?
- What country has the highest amount of debt?
- What country has the lowest amount of repayments?

Below is a description of the table you will be working with:

`international_debt` table

Column	Definition	Data Type
country_name	Name of the country	varchar
country_code	Code representing the country	varchar
indicator_name	Description of the debt indicator	varchar
indicator_code	Code representing the debt indicator	varchar
debt	Value of the debt indicator for the given country (in current US dollars)	float

You will execute SQL queries to answer three questions, as listed in the instructions.

 Projects Data   DataFrame as df1

```sql
SELECT *
FROM public.international_debt
LIMIT 10;
```

	country_name		country_code		indicator_name
0	Afghanistan		AFG		Disbursements on external debt, long-term (DIS, current U
1	Afghanistan		AFG		Interest payments on external debt, long-term (INT, curre
2	Afghanistan		AFG		PPG, bilateral (AMT, current US$)
3	Afghanistan		AFG		PPG, bilateral (DIS, current US$)
4	Afghanistan		AFG		PPG, bilateral (INT, current US$)
5	Afghanistan		AFG		PPG, multilateral (AMT, current US$)
6	Afghanistan		AFG		PPG, multilateral (DIS, current US$)
7	Afghanistan		AFG		PPG, multilateral (INT, current US$)
8	Afghanistan		AFG		PPG, official creditors (AMT, current US$)
9	Afghanistan		AFG		PPG, official creditors (DIS, current US$)

10 rows

Projects Data   DataFrame as `df`

```sql
---What is the total debt across all countries?

SELECT SUM(debt) as total_debt
FROM international_debt
```

	total_debt
0	

1 rows

Projects Data   DataFrame as `df2`

```sql
--- What are the top 5 countries with the most debt?

SELECT country_name, SUM(debt) as total_debt
FROM international_debt
GROUP BY country_name
ORDER BY total_debt DESC
LIMIT 5;
```

	country_name
0	China
1	Brazil
2	South Asia
3	Least developed countries: UN classification
4	Russian Federation

5 rows

Projects Data   DataFrame as `df3`

```
--- What is the total debt,average debt for a South Africa

SELECT country_name, ROUND(SUM(debt),3) AS total_debt_southafrica , ROUND(AVG(debt),3) AS
avg_debt_southafrica
FROM international_debt
WHERE country_name = 'South Africa'
GROUP BY country_name
LIMIT 1;
```

	country_name	total_debt_southafrica
0	South Africa	3670394

1 rows ↓

🐘 Projects Data   DataFrame as df4

```
--- How many debt indicators are recorded in the dataset?

SELECT COUNT(DISTINCT indicator_name) AS number_of_indicators
FROM international_debt;
```

	number_of_indicators
0	

1 rows ↓

🐘 Projects Data   DataFrame as df6

```
---Which debt indicator has the highest value?

SELECT indicator_name, SUM(debt) AS total_debt
FROM international_debt
GROUP BY indicator_name
ORDER BY total_debt DESC
LIMIT 1;
```

	indicator_name
0	Principal repayments on external debt, long-term (AMT, current US$)

1 rows ↓

🐘 Projects Data   DataFrame as df5

```
---What is the average debt per country?

SELECT AVG(total_debt) AS average_debt_per_country
FROM (
    SELECT country_name, SUM(debt) AS total_debt
    FROM international_debt
    GROUP BY country_name
) AS country_debt;
```

	average_debt_per_country
0	

1 rows ⤓

Projects Data   DataFrame as d

```sql
--- Which countries have more than a certain amount of debt (e.g., 1 billion USD)

SELECT country_name, SUM(debt) AS total_debt
FROM international_debt
GROUP BY country_name
HAVING SUM(debt) > 1000000000
ORDER BY sum(debt) DESC
LIMIT 10;
```

	country_name
0	China

1 rows ⤓