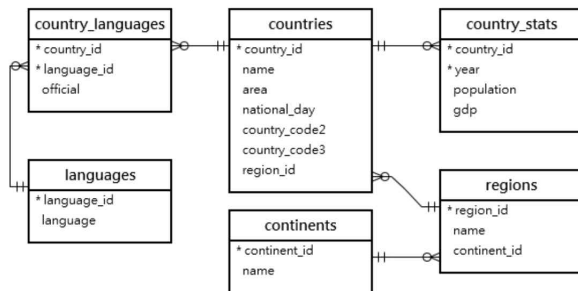


Database Midterm

2022.11.7.

You are given "nation.sql". To use in your MariaDB, install as follows:

```
mysql -uroot -pYOURPASSWORD < nations.sql
```



In this sample database (named "nation"), you have 6 primary tables (countries, regions, continents, country_languages, languages, country_stats) and 1 extra table (region_area). You may ignore "vips" and "guests" tables.

Continents contain 7 continent information. These continents are specialized in 25 regions (in "regions"). This db indexes 239 countries with their size(area), national_day, country_code2, country_code3, and their belonging regions. Their specific statistics are stored in country_stats. The table shows population and gdp per year for most of the countries. Some countries may not have such information available. This database also contains languages used in each country and whether they are "officially" accepted languages or not. In table "country_languages", 1 of "official" attribute means "officially accepted". Otherwise, it would mean that the given language (language_id) is not officially accepted.

a total of 85 points

[5 points per problem]

(1) find countries that locates in "Southern and Central Asia" and have areas greater than 2,000,000 km².

(2) find countries whose country code are in the US, FR and JP country codes.

(3) find the countries and their GDPs. It also shows the countries who have no GDP information.

(4) find the countries who have no GDP information available.

(5) find the number of countries in each region. It also shows the region name not region id.

(6) calculate the average area of countries in each region.

(7) find countries that have more than 10 countries and total areas greater than 1,000,000 km².

[10 points per problem]

(8) find the countries whose population and GDP are greater than the average population and average GDP of all countries in 2018.

(9) for each language, find the total area of the countries where the official language is spoken.

(10) find all countries (name) whose economy growth (use gdp) is more than 500% throughout the whole reporting period.

(11) find all countries that have experienced a decrease in GDP at most twice compared to the previous year.

(12) find all continents that have experienced significant economic depression during IMF period (1997~1998). how much did they experience the decrease in growth rate (use gdp).