

1 Goals

- _ Writing queries in MySQL against the world database
- _ Single Table Queries
- _ Multiple Table Queries (JOIN)
- _ Use WHERE clause restrictions in queries
- _ Use DISTINCT
- _ Use FETCH, OFFSET, TOP

2 Tasks

Implementation

For reference, the number of results that should be returned by each query is provided.

1. Find the district and population of all cities named Springfield. Sort results from most populous to least populous. (3 results)
2. Find the name, district, and population of each city in Brazil (country code BRA). Order results by city name alphabetically. (250 results)
3. Find the name, continent, and surface area of the smallest countries by surface area. Order by surface area with smallest first. Return only 20 countries. (20 results)
4. Find the name, continent, form of government, and GNP of all countries having a GNP greater than 200,000. Sort the output by the name of the country in alphabetical order from A to Z. (23 results)
5. Find the 10 countries with the 10th through 19th best life expectancy rates. You should use WHERE life expectancy IS NOT NULL to remove null values when querying this table. (10 results)
6. Find all city names that start with the letter B and ends in the letter s. Results should be ordered from largest to smallest population, but do not display the population. (12 results)
7. Return the name, name of the country, and city population of each city in the world having population greater than 6,000,000. Order results by the city population with the most populous. (20 results)
8. Find the name, independence year, and region of all countries where English is an official language. Order results by region ascending and alphabetize the results within each region by country name. (43 results)
9. For each country display the capital city name and the percentage of the population that lives in the capital for each country. Sort the results from largest percentage to smallest percentage. (Hint: Don't be surprised if there are some countries with a percentage greater than 100% due to errors in the data.) (231 results)
10. Find all official languages, the country for which it is spoken, and the number of speakers in that country (number of speakers is calculated as percentage spoken times country population divided by 100). Order results by the total number of speakers with the most popular language first. (236 results)

11. Find the name, region, GNP, old GNP, and real change in GNP for the countries that have most improved their relative wealth. The real change in GNP is defined as $(\text{gnp} - \text{gnp old}) / \text{gnp old}$. Order results by real change with the most improved country first. Also, this data is missing some entries for gnp and gnp old. Filter these missing entries out by only returning countries where gnp IS NOT NULL and gnp old IS NOT NULL.
(177 results)