

CMSC 424 Homework 2

Due: Thursday, February 24 @ midnight

Please write SQL queries to answer the following questions:

1. List the names of all the countries in the world that belong to more than one international organization. For each country also output the number of international organizations they belong to: 'country name', 'number of organizations'.
2. List the names of all the countries in the world that belong to the maximum number of international organizations. For each country also output the number of international organizations they belong to: 'country name', 'number of organizations'.
3. List the names of all seas in the world together with the total GDP of countries bordering each sea. List the following fields: 'sea name', 'number of countries', 'total GDP';
4. Find the river(s) in the world that pass through the largest number of countries. List the fields: 'river name', 'number of countries'. **Hint:** the located table links rivers, seas, or lakes with the countries they belong to.
5. Find the river(s) in the world that pass through the largest number of capitals of countries. List the fields: 'river name', 'number of capitals'.
6. List the names of all the seas that are connected to the Mediterranean.
7. List the names of all the countries that border a country that borders Germany.
8. Same as number 7, but these countries cannot border Germany themselves (they are separated from Germany by at least one other country).
9. Create a new table named Country_Border that stores for each country the length of the border the country shares with at least one other country. The two columns in this table should be 'Country_name', and 'Length'. Once the table is created, insert into it all the relevant information. **Hint:** the length of the border, for each country, can be found in the borders table.
10. Write a query to delete from the table created at number 9 all the countries that only border one single other country.

Late Policy: 1 day late - 10% off, 2 days late - 20% off, 3 days late - no credit

Submission:

You must submit your homework through <http://submit.cs.umd.edu>

Unlike other classes, the server won't be able to test your code (hard to do with SQL).

Return each query as a separate .sql file named, for example: query1.sql, query2.sql, ...

Do not submit handwritten answers or answers prepared in Word.

The queries you submit must be able to execute on the Oracle server available through grace.umd.edu

Resources:

Note: the Mondial database available on the grace systems is a reduced version of the full schema available from the link presented in the lecture notes/class site.

See Mondial database schema on class site for details.