SELECT Query Practice:

1. Write a query that will display all of the fields for all rows in the Country table.
2. Write a query that will display the Country Name and Form of Government for all the rows in the Country Table.
3. Write a query that will display all the fields for all countries that won independence after 1900.
4. Write a query that will display all the fields for all countries with a population between one and two million.
5. Write a query that will display the name of the country and the continent it is part of where the GNP is less than 1000.\
6. Write # 5 in such a way as to limit the return to such countries on the Asian and African continents.
7. Write #5 in such a way as to return all of the countries in Asia that have a GNP less than 1000 as well as all countries in Africa.
8. Write a query that will display the name of the country, its continent and date of independence, if that date lies between January 1, 1948 and January 1, 2010.
9. Write a query that displays the name of the country, name of continent and GNP where the GNP is less than 10000.
10. Write a query that will display the country name and GNP for the 10 countries with the lowest GNP.
11. Write a query to display the Country Code for all countries for which English is the official language.
12. Write a query to display the Country Code for all countries that use English but for which it is not the official language.
13. Write a query to display the country code for any country for which English is the official language but for which zero percent of the population speaks it.
14. Write a query to display the country code for all countries which have less than 25% of its population using its official language
15. Write a query to display the name of every country in the world that has a “President” as its head of state. Display only those whose name begins with a letter from ‘D’ to ‘T’.
16. Write a query that will display the information about all cities that have “City” as the last part of their name. eg. Mexico City
17. Write a query that will display the information about all countries whose names end with “istan”.

ORDER BY and INNER JOIN Practice

1. Write a query that will sort the countries of the African continent in descending order and display their names and populations
2. Write a query that will sort the countries of South America in ascending order by GNP and display their names and populations
3. Display all the Countries in the world sorted by their local name. The query should display the common name, the local name and the continent.
4. Write a query to display the countries on each continent sorted alphabetically by continent and then by country name.
5. Write a query that will display all the information about every city beginning with the letter “C” in alphabetic order.
6. Write a query that will display all the information about every city beginning with the letter “C” sorted AS BINARY.
7. Write a query that will display all the information about every city beginning with the letter “C” sorted AS CHAR.
8. Write a query that will display all the information about every city beginning with the letter “C” sorted as UNSIGNED.
9. Write a query that will display city name, country name and continent by utilizing an inner join of the City and Country tables.
10. Write a query that will display the country name and any official languages and the percentage of the population speaking each utilizing an inner join of the Country and Country. Include an Order by clause that will display the counties in ascending alphabetical order and then the languages if more than one in ascending order of the percent of the population that speak it.
11. Write a query that will display the city name, country name and date of independence in descending order by year if the country is a republic or democratic monarchy.
12. Write a query that will display all the cities in all countries for which the country name and local name are not the same.
13. Write a query that will list all the cities along with the district for that city and the country name for countries in Asia with a life expectancy of less than 40 years.
14. Repeat the query in 13 for South America and Africa.
15. Write a query that will display all the city names in Oceania with a population of ten million or more.
16. Write a query that will display the names of all cities and the name of the continent upon which each exists ordered by continent and then city name.
17. Write a query that will display the names of the continents and the languages spoken on that continent ordered by continent and then by language.

Aggregate functions

1. Write a query that will display all the unique languages in the CountryLanguage table.
2. Write a query that will count the languages in the CountryLanguage table.
3. Write a query that will display the code and name for each country along with the number of cities in that country.
4. Improve the query in #1 to display the number of languages spoken in each country.
5. Modify the query once again to limit the response to the Asian continent.
6. For each continent in the world, using aliases for aggregate columns and the tables, list the total population for the continent, the total urban population and the rural population.
7. What is the highest population for any country on each continent and the smallest population in any country on that continent.
8. What is the average GNP of countries on each continent? What is the standard deviation about that mean?
9. Create a query that will in single fields display all the languages spoken in Brazil.
10. Write a query that will report the Name of the continent, the number of cities on the continent and the average population of those cities.
11. How many languages are spoken in each country on each continent? Group by continent and then country name.

Regular Expressions

1. Using a regular expression select all the cities for which the countryCode begins with a “D” and ends with an “A”.
2. Using a regular expression select all the countries that have “United” in their name.
3. Using a regular expression select all the cities that begin with “San” and end in “o”
4. Using a regular expression select all the cities that contain “el”
5. Using a regular expression select all the countries whose head of state’s name includes the roman numeral “II”
6. Using a regular expression select all the countries whose form of government starts with a “C” or “D”
7. Using a regular express select all the countries whose form of government starts with any letter followed by an “e”
8. Using a regular expression select all the languages in the CountryLanguage table that end in “ish”
9. Using a regular expression select all the CountryCodes and Languages for countries where a language that includes “Creole” is spoken
10. Using a regular expression select all the country codes, languages and percentages where a language is spoken by 90% or more of the population

For each of the practice queries below execute a query employing SELECT \* to demonstrate the changes.

1. Create a query(ies) to add a row to the country language table. The Country code is DLD, languages spoken include English, French and Spanish. Only English is an official language. 50% of the residents speak English, French is the preference of 25% and the rest use Spanish.
2. Create a query to add a new city to the world database. The id for the city should be the next available number supplied by the auto-increment. The name of the city is Tomorrow Land. The country code is DLD. It is located in the Florida district and has a population of 10000.
3. Create a query to add a row to the country table. The Country is Disney Land. It is on the North American continent. The region is the USA. The surface area is 3 square miles. It not independent. Its population is 30000. The life expectancy is 1000. The local name is Happy Land. The government form is anarchy. Its alternative code is EC.
4. Create a query(ies) That will permit the insertion of a new city with ID of 1. To do this add 1 to each of the existing city ids and then insert the new city. Supply all the other values as appropriate. Those fields that are not designated as not null may be omitted from your query.
5. Create a query that will update the population of Disney Land, the country to 100000.
6. Create a query that will delete the new rows just inserted into the tables.
7. Create a query that will increase the population of the first ten countries by 2 million.
8. Create a query that will increase the population of cities with ids 15 through 25 by 30000.
9. Write a query(ies) to change the official language of the United States to Spanish.
10. Create a query using TRUNCATE to remove all the records from the CountryLanguage table.
11. Change the Country code of Albania to MCD.
12. Create a query to DELETE the first 100 cities from the City table.
13. Create a query to DELETE all rows from the Country table.
14. These tables are no longer of any use. Drop them.
15. Reload the tables using the original script.