Project T Final SQL Quiz Solutions

Ryan Van de Water, David Zagaynov, & Justin Haug

December 2020

Question 1: Write a query such that the result returns each continent and their average gdp. Ensure that there is only one row per continent.

Solution:
SELECT continent, AVG(gdp)
FROM countries
GROUP BY continent;

Question 2: Construct a query that returns the country with the highest gdp without using the 'MAX' function.

Solution:
SELECT Name
FROM countries
ORDER BY gdp DESC
LIMIT 1;

Question 3: Construct a query such that it returns the names of the countries in descending order of their average gdp breaking ties with whose name comes first alphabetically.

Solution:
SELECT Name
FROM countries
ORDER BY gdp DESC, Name ASC;

Question 4: Construct a query such that you only keep the country names who have a gdp larger than the average gdp.

Solution:
SELECT Name
FROM countries
WHERE gdp > (SELECT AVG(gdp) FROM countries);

Question 5: Construct a query such that the result is a list of all the city names ending with an 'o'.

Solution:
SELECT Name
FROM cities
WHERE Name LIKE '%o';

Question 6: Construct a query such that the result is all of the countries, their continents, and the cities in those countries.

Solution:
SELECT cities.Name, countries.Name, continent
FROM countries
INNER JOIN cities
ON countries.country_id = cities.country_id;

Question 7: Will your above query return duplicate values? If so, which column will have duplicate values and why?

Solution: Yes, our result will have duplicate values for the country name column and the continent column. This is because we have multiple cities that are in the same country and continent.

Question 8: Construct a query such that you return all of the city names, along with the city's corresponding country, continent and gdp.

SELECT cities.Name, countries.Name, continent, gdp
FROM cities
LEFT JOIN countries
ON countries.country_id = cities.country_id;
Note: an INNER JOIN can work as well.

Question 9: Construct a query such that you return the average gdp for the countries in Asia and the countries in North America.

SELECT continent, AVG(gdp)
FROM countries
GROUP BY continent
HAVING continent = 'North America' OR continent = 'Asia';

Question 10: How many records will be returned by the following query?
SELECT *
FROM cities
LEFT JOIN countries
ON cities.country_id = countries.country_id;

Solution: 10 records