Solutions to SQL Queries (Countries)

Table aliasing is not used in these example solutions, but it is perfectly acceptable if students chose to implement this practice.

1. What query would you run to get all the countries with Surface Area below 501 and Population greater than 100,000? Include the country name, surface area, and population in your results.

SELECT countries.name, countries.surface_area, countries.population
FROM countries
WHERE countries.surface_area < 501 AND countries.population > 100000;

```
3
4 •    SELECT countries.name, countries.surface_area, countries.population
5      FROM countries
6      WHERE countries.surface_area < 501 AND countries.population > 100000;
```

name	surface_area	population
Aruba	193.00	103000
Barbados	430.00	270000
Macao	18.00	473000
Maldives	298.00	286000
Malta	316.00	380200
Mayotte	373.00	149000
Saint Vincent and the Grenadines	388.00	114000

2. What query would you run to get countries with only Constitutional Monarchy with a capital greater than 200 and a life expectancy greater than 75 years? Include the country name, form of government, and capital in your results.

SELECT countries.name, countries.government_form, countries.capital
FROM countries
WHERE countries.government_form = 'Constitutional Monarchy'
        AND countries.life_expectancy > 75
        AND countries.capital > 200;

```
 8 •    SELECT countries.name, countries.government_form, countries.capital
 9      FROM countries
10      WHERE countries.government_form = 'Constitutional Monarchy'
11          AND countries.life_expectancy > 75
12          AND countries.capital > 200;
```

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name	government_form	capital
Denmark	Constitutional Monarchy	3315
Spain	Constitutional Monarchy	653
United Kingdom	Constitutional Monarchy	456
Jamaica	Constitutional Monarchy	1530
Jordan	Constitutional Monarchy	1786
Japan	Constitutional Monarchy	1532
Liechtenstein	Constitutional Monarchy	2446
Luxembourg	Constitutional Monarchy	2452
Monaco	Constitutional Monarchy	2695
Norway	Constitutional Monarchy	2807
New Zealand	Constitutional Monarchy	3499
Sweden	Constitutional Monarchy	3048

3. What query would you run to summarize the number of countries in each region? The query should display the name of the region and the number of countries. Also, the query should arrange the result by the number of countries in descending order.

SELECT countries.region, COUNT(countries.id) AS num_countries
FROM countries
GROUP BY countries.region
ORDER BY num_countries DESC;

```
14 •    SELECT countries.region, COUNT(countries.id) AS num_countries
15      FROM countries
16      GROUP BY countries.region
17      ORDER BY num_countries DESC;
18
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

region	num_countries
Caribbean	24
Eastern Africa	20
Middle East	18
Western Africa	17
Southern Europe	15
Southern and Central Asia	14
South America	14
Southeast Asia	11
Polynesia	10
Eastern Europe	10
Central Africa	9
Western Europe	9
Central America	8
Eastern Asia	8
Nordic Countries	7
Northern Africa	7
Micronesia	7
Antarctica	5
Australia and New Zealand	5
North America	5
Southern Africa	5
Melanesia	5
Baltic Countries	3
British Islands	2
Micronesia/Caribbean	1

4. What query would you run to get all the countries that speak Slovene? Your query should return the name of the country, language and language percentage. Your query should arrange the result by language percentage in descending order.

SELECT countries.name, languages.language, languages.percentage
FROM countries
JOIN languages ON countries.id = languages.country_id
WHERE languages.language = 'Slovene'
ORDER BY languages.percentage DESC;

```
19 •    SELECT countries.name, languages.language, languages.percentage
20      FROM countries
21      JOIN languages ON countries.id = languages.country_id
22      WHERE languages.language = 'Slovene'
23      ORDER BY languages.percentage DESC;
24
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: IA

name	language	percentage
Slovenia	Slovene	87.9
Austria	Slovene	0.4
Italy	Slovene	0.2
Croatia	Slovene	0.0

5. What query would you run to display the total number of cities for each country? Your query should return the name of the country and the total number of cities. Your query should arrange the result by the number of cities in descending order.

SELECT countries.name, COUNT(cities.id) as num_cities
FROM countries
JOIN cities ON countries.id = cities.country_id
GROUP BY countries.id
ORDER BY num_cities DESC;

```
25 •    SELECT countries.name, COUNT(cities.id) as num_cities
26      FROM countries
27      JOIN cities ON countries.id = cities.country_id
28      GROUP BY countries.id
29      ORDER BY num_cities DESC;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: $\overline{A}$

name	num_cities
China	363
India	341
United States	274
Brazil	250
Japan	248
Russian Federation	189
Mexico	173
Philippines	136
Germany	93
Indonesia	85
United Kingdom	81
South Korea	70
Iran	67
Nigeria	64
Turkey	62
Spain	59
Pakistan	59
Italy	58
Argentina	57
Ukraine	57
Canada	49
Poland	44
South Africa	44
Taiwan	42

Output continues…

6. What query would you run to get all the cities in Mexico with a population of greater than 500,000?

Your query should arrange the result by population in descending order.

SELECT cities.name, cities.population

FROM countries

JOIN cities ON countries.id = cities.country_id

WHERE countries.name = 'Mexico' AND cities.population > 500000

ORDER BY cities.population DESC;

```
31 •    SELECT cities.name, cities.population
32      FROM countries
33      JOIN cities ON countries.id = cities.country_id
34      WHERE countries.name = 'Mexico' AND cities.population > 500000
35      ORDER BY cities.population DESC;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

name	population
Ciudad de MÃ©xico	8591309
Guadalajara	1647720
Ecatepec de Morelos	1620303
Puebla	1346176
NezahualcÃ³yotl	1224924
JuÃ¡rez	1217818
Tijuana	1212232
LeÃ³n	1133576
Monterrey	1108499
Zapopan	1002239
Naucalpan de JuÃ¡rez	857511
Mexicali	764902
CuliacÃ¡n	744859
Acapulco de JuÃ¡rez	721011
Tlalnepantla de Baz	720755
MÃ©rida	703324
Chihuahua	670208
San Luis PotosÃ	669353
Guadalupe	668780
Toluca	665617
Aguascalientes	643360
QuerÃ©taro	639839
Morelia	619958
Hermosillo	608697
Saltillo	577352
TorreÃ³n	529093
Centro (Villahermosa)	519873

7. What query would you run to get all languages in each country with a percentage greater than 89%? Include the country name, language, and percentage. Your query should arrange the result by percentage in descending order.

```
SELECT countries.name, languages.language, languages.percentage
FROM countries
JOIN languages ON countries.id = languages.country_id
WHERE languages.percentage > 89
ORDER BY languages.percentage DESC;
```

```
37  •    SELECT countries.name, languages.language, languages.percentage
38       FROM countries
39       JOIN languages ON countries.id = languages.country_id
40       WHERE languages.percentage > 89
41       ORDER BY languages.percentage DESC;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

name	language	percentage
Bermuda	English	100.0
Faroe Islands	Faroese	100.0
Cape Verde	Crioulo	100.0
Cuba	Spanish	100.0
Saint Kitts and Nevis	Creole English	100.0
San Marino	Italian	100.0
Grenada	Creole English	100.0
El Salvador	Spanish	100.0
Rwanda	Rwanda	100.0
Dominica	Creole English	100.0
Western Sahara	Arabic	100.0
Maldives	Dhivehi	100.0
Haiti	Haiti Creole	100.0
South Korea	Korean	99.9
North Korea	Korean	99.9
Yemen	Arabic	99.6
Bosnia and Herzego...	Serbo-Croatian	99.2
Saint Vincent and t...	Creole English	99.1

Result 33

Output continues…

8. What query would you run to get all the cities of Argentina inside the Buenos Aires district and have the population greater than 500, 000? The query should return the Country Name, City Name, District and Population.

SELECT countries.name, cities.name, cities.district, cities.population
FROM countries
JOIN cities ON countries.id = cities.country_id
WHERE countries.name = 'Argentina'
      AND cities.district = 'Buenos Aires'
      AND cities.population > 500000;

```
42
43 •   SELECT countries.name, cities.name, cities.district, cities.population
44      FROM countries
45      JOIN cities ON countries.id = cities.country_id
46      WHERE countries.name = 'Argentina'
47          AND cities.district = 'Buenos Aires'
48          AND cities.population > 500000;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

name	name	district	population
Argentina	La Matanza	Buenos Aires	1266461
Argentina	Lomas de Zamora	Buenos Aires	622013
Argentina	Quilmes	Buenos Aires	559249
Argentina	Almirante Brown	Buenos Aires	538918
Argentina	La Plata	Buenos Aires	521936
Argentina	Mar del Plata	Buenos Aires	512880