

## Introduction to SQL Session 6 Quiz

Using tick marks, which are generated from Workbench, are optional

1. Write the SQL statement to all countries in the world.country table that contain the word "and" in the name. The "and" must appear as a conjunction of two names, it must not appear within the country name. Do not use a regular expression. Also display the Region, Population, and LifeExpectancy.

The result set should look like the below figure.

	Name	Region	Population	LifeExpectancy
▶	Antigua and Barbuda	Caribbean	68000	70.5
	Bosnia and Herzegovina	Southern Europe	3972000	71.5
	Heard Island and McDonald Islands	Antarctica	0	NULL
	Saint Kitts and Nevis	Caribbean	38000	70.7
	Saint Pierre and Miquelon	North America	7000	77.6
	Saint Vincent and the Grenadines	Caribbean	114000	72.3
	Sao Tome and Principe	Central Africa	147000	65.3
	South Georgia and the South Sandwich Islands	Antarctica	0	NULL
	Svalbard and Jan Mayen	Nordic Countries	3200	NULL
	Trinidad and Tobago	Caribbean	1295000	68.0
	Turks and Caicos Islands	Caribbean	17000	73.3
	Wallis and Futuna	Polynesia	15000	NULL

2. In the world.country table, the SurfaceArea is given in square kilometers. Write an SQL SELECT statement to return the country name, region, surface area in square kilometers as SurfaceAreaSK, and surface area in square miles as SurfaceAreaSM. Return the data in order by descending SurfaceAreaSM.

For reference, 1 sq. kilometer = 0.38610216 sq. mile

Formula: SurfaceArea \* .38610216

The result set should look like the below figure.

	Name	Region	SurfaceAreaSK	SurfaceAreaSM
▶	Russian Federation	Eastern Europe	17075400.00	6592848.82286400
	Antarctica	Antarctica	13120000.00	5065660.33920000
	Canada	North America	9970610.00	3849674.05751760
	China	Eastern Asia	9572900.00	3696117.36746400
	United States	North America	9363520.00	3615275.29720320
	Brazil	South America	8547403.00	3300170.76069048
	Australia	Australia and New Zealand	7741220.00	2988901.76303520
	India	Southern and Central Asia	3287263.00	1269219.34478808
	Argentina	South America	2780400.00	1073518.44566400
	Kazakstan	Southern and Central Asia	2724900.00	1052089.77578400

**3.** Write an SQL SELECT statement that will return the following: Name, Region, SurfaceArea in square miles as SurfaceAreaSM, Population, population density per square mile as Density, life expectancy.

Include only those countries where the population density is greater than 750 people per square mile and the life expectancy is less than 70.

Sort in order by descending the highest density, then by region and name.

For reference, 1 sq. kilometer = 0.38610216 sq. mile

Formula: SurfaceArea \* .38610216

For reference population density is the population / area

Formula: Population/(SurfaceArea \* .38610216)

The result set should look like the below figure.

	Name	Region	SurfaceAreaSM	Population	Density	LifeExpectancy
▶	Maldives	Southern and Central Asia	115.05844368	286000	2485.693277717382	62.2
	Bangladesh	Southern and Central Asia	55597.93883568	129155000	2323.017771966660	60.2
	Nauru	Micronesia	8.10814536	12000	1479.993200319240	60.8
	Tuvalu	Polynesia	10.03865616	12000	1195.379123334771	66.3
	Mayotte	Eastern Africa	144.01610568	149000	1034.606506657485	59.5
	Marshall Islands	Micronesia	69.88449096	64000	915.796897435110	65.5
	Comoros	Eastern Africa	718.92222192	578000	803.981268594474	60.0
	India	Southern and Central Asia	1269219.34478808	1013662000	798.649976587971	62.5
	El Salvador	Central America	8123.97554856	6276000	772.528174473942	69.7
	Haiti	Caribbean	10714.33494000	8222000	767.383141001564	49.2
	Rwanda	Eastern Africa	10169.15869008	7733000	760.436554849275	39.3

**4.** In the "world" schema, the "city" table contains data about cities around the world. Write an SQL SELECT statement that will return the following: city.CountryCode, city.Name, city.District, city.Population.

Include only those cities where the population density per square mile of the country is greater than 750 and the life expectancy is less than 60.

Sort in order by descending population.

The result set should look like the below figure.

	CountryCode	Name	District	Population
▶	HTI	Port-au-Prince	Ouest	884472
	HTI	Carrefour	Ouest	290204
	RWA	Kigali	Kigali	286000
	HTI	Delmas	Ouest	240429
	HTI	Le-Cap-Haïtien	Nord	102233
	MYT	Mamoutzou	Mamoutzou	12000

5. Write an SQL SELECT statement that will return the following from the country table: Name, Region, Population, LifeExpectancy. Include only those countries where English is the official language and the population is greater than 1 million.

Hint: You are displaying the results for the 'country' table, based on a condition from the 'countryLanguage' table. You will need to use an embedded SELECT (see video Session 6 Part 3)

The result set should look like the below figure.

	Name	Region	Population	LifeExpectancy
▶	Australia	Australia and New Zealand	18886000	79.8
	Canada	North America	31147000	79.4
	Hong Kong	Eastern Asia	6782000	79.5
	Ireland	British Islands	3775100	76.8
	Lesotho	Southern Africa	2153000	50.8
	New Zealand	Australia and New Zealand	3862000	77.8
	South Africa	Southern Africa	40377000	51.1
	United Kingdom	British Islands	59623400	77.7
	United States	North America	278357000	77.1
	Zimbabwe	Eastern Africa	11669000	37.8