

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

The screenshot shows the MySQL Workbench interface. The top menu bar includes File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. The main window is titled 'Untitled - MySQL Workbench'. The left sidebar shows the 'SCHEMAS' panel with a tree view of the database structure, including 'sys', 'world', 'cities', 'columns', 'id', 'name', 'country\_code', 'district', 'population', 'country\_id', 'Indexes', 'Foreign Keys', 'Triggers', 'countries', 'languages', 'Views', 'Stored Procedures', and 'Functions'. The 'world' database is selected, and the 'countries' table is highlighted. The central query editor contains the following SQL query:

```
1 • SELECT countries.name, countries.surface_area, countries.population
2   from countries
3  where countries.surface_area < 501 and countries.population > 100000;
```

The 'Result Grid' below the query editor displays the results of the query. It shows a table with three columns: 'name', 'surface\_area', and 'population'. The results are as follows:

name	surface_area	population
Aruba	193.00	103000
Barbados	430.00	270000
Macao	18.00	473000
Maldives	298.00	285000
Malta	316.00	380200
Mayotte	373.00	149000
Saint Vincent and the Grenadines	388.00	114000

The bottom status bar indicates 'Query Completed' at 13:17:15, showing the query text and the number of rows returned (7 row(s) returned).

[illegible]

```
1 • SELECT countries.name, countries.government_form, countries.capital
2   from countries
3  where countries.government_form = 'constitutional monarchy'
4     and countries.life_expectancy > 75
5     and countries.capital > 200;
```


### Result Grid



Filter Rows:

Filter Rows:

Export: 

Export: 

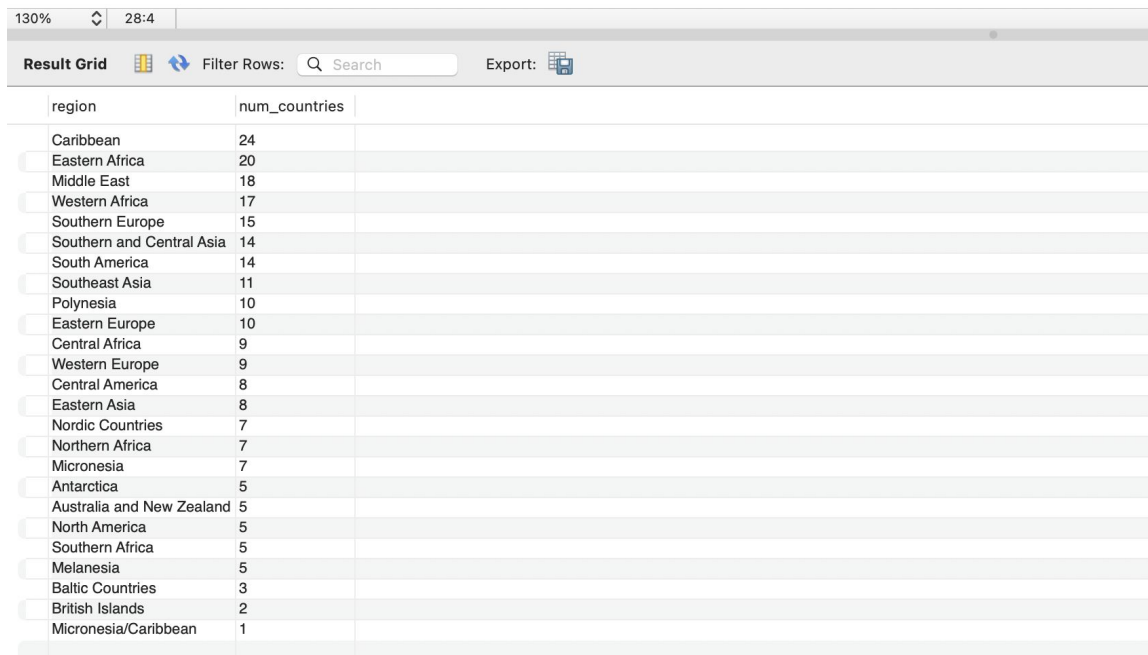
[illegible]

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.



The screenshot shows a SQL query editor with a toolbar at the top containing icons for file operations, execution, and search. A text box indicates "Limit to 1000 rows". The query is as follows:

```
1 • SELECT countries.region, count(countries.id) as num_countries
2   FROM countries
3  GROUP BY countries.region
4  ORDER BY num_countries desc;
```



The screenshot shows a database result grid with a toolbar at the top. The toolbar includes a zoom level of 130%, a refresh icon, a time indicator of 28:4, a search bar labeled "Filter Rows: Search", and an "Export" button. The table below displays the results of the SQL query, sorted by the number of countries in descending order.

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.

```
1 • SELECT countries.name, languages.language, languages.percentage
2   from countries
3   join languages on countries.id = languages.country_id
4   where languages.language = 'Slovene'
5   order by languages.percentage desc;
```

130% 54:3

Result Grid



Filter Rows:

Search

Export:



	name	language	percentage
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	Slovenia	Slovene	87.9
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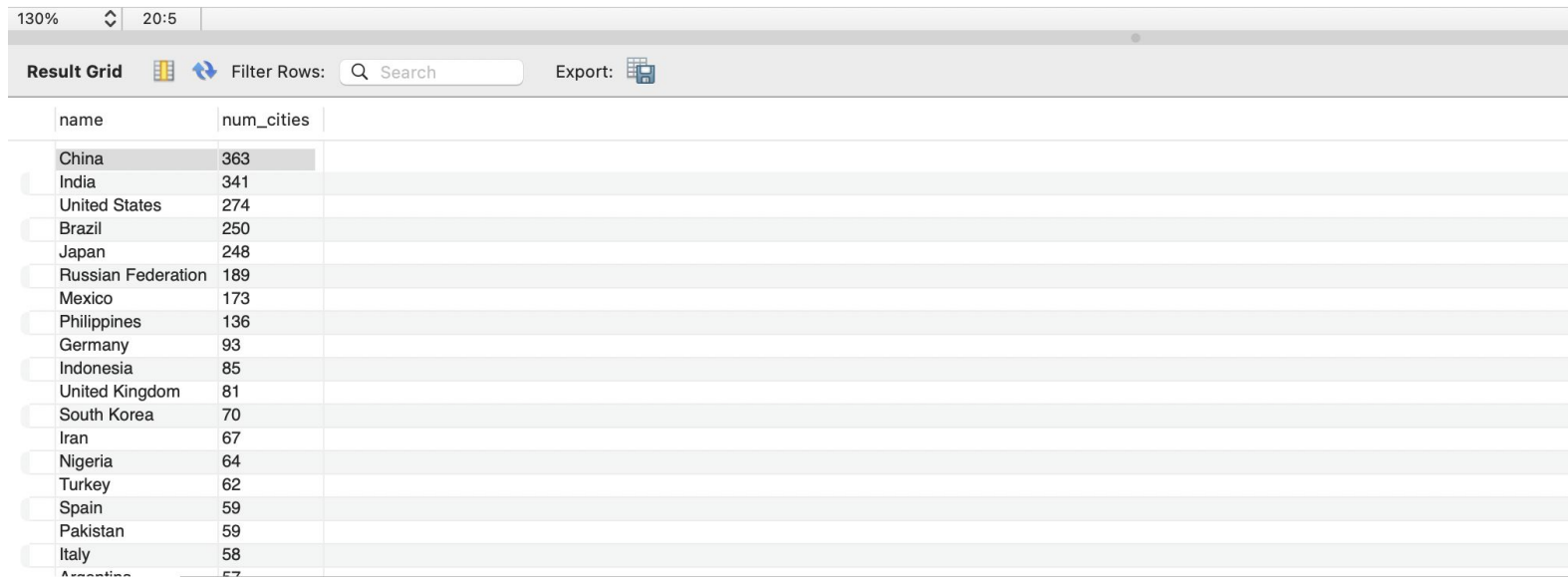
	Austria	Slovene	0.4
--	---------	---------	-----

	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.

```
1 • SELECT countries.name, count(cities.id) as num_cities
2   from countries
3  join cities on countries.id = cities.country_id
4  group by countries.id
5  order by num_cities desc;
```






The screenshot shows a database query result interface. At the top, there is a zoom level of 130% and a timestamp of 20:5. Below this is a toolbar with a 'Result Grid' button, a 'Filter Rows' button, a search input field, and an 'Export' button. The main area displays a table with two columns: 'name' and 'num\_cities'. The table lists 20 countries, sorted by the number of cities in descending order. The countries are: 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), and Argentina (57).

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

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.

```
1 • SELECT cities.name, cities.population
2   from countries
3   join cities on countries.id = cities.country_id
4   where countries.name='Mexico'
5   and cities.population > 500000
6   order by cities.population desc;
```

30% 33:6

Result Grid   Filter Rows:  Export: 

name	population
Ciudad de México	8591309
Guadalajara	1647720
Ecatepec de Morelos	1620303
Puebla	1346176
Nezahualcōyotl	1224924
Juárez	1217818
Tijuana	1212232
León	1133576
Monterrey	1108499
Zapopan	1002239
Naucalpan de Juárez	857511
Mexicali	764902
Culiacán	744859
Acapulco de Juárez	721011
Tlalnepantla de Baz	720755
Mérida	703324
Chihuahua	670208
San Luis Potosí	669353
Guadalupe	668780
Toluca	665617
Aguascalientes	642260

Result 10

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.

```
1 • SELECT countries.name, languages.language, languages.percentage
2   from countries
3  join languages on countries.id = languages.country_id
4  where languages.percentage > 89
5  order by languages.percentage desc;
```

130% 17:1

Result Grid Filter Rows: Search Export:

name	language	percentage
San Marino	Italian	100.0
El Salvador	Spanish	100.0
Haiti	Haiti Creole	100.0
Rwanda	Rwanda	100.0
Western Sahara	Arabic	100.0
Bermuda	English	100.0
Maldives	Dhivehi	100.0
Dominica	Creole English	100.0
Cape Verde	Crioulo	100.0
Saint Kitts and...	Creole English	100.0
Cuba	Spanish	100.0
North Korea	Korean	99.9
South Korea	Korean	99.9
Yemen	Arabic	99.6
Bosnia and He...	Serbo-Croatian	99.2
Saint Vincent a...	Creole English	99.1
Japan	Japanese	99.1
Colombia	Spanish	99.0
Portugal	Portuguese	99.0
Kiribati	Kiribati	98.9

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



```
1 • SELECT countries.name, cities.name, cities.district, cities.population
2   from countries
3  join cities on countries.id = cities.country_id
4  where countries.name = "Argentina"
5  and cities.district = "Buenos Aires"
6  and cities.population > 500000;
```

130%

11:5

Result Grid

Filter Rows:

Export:

	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	