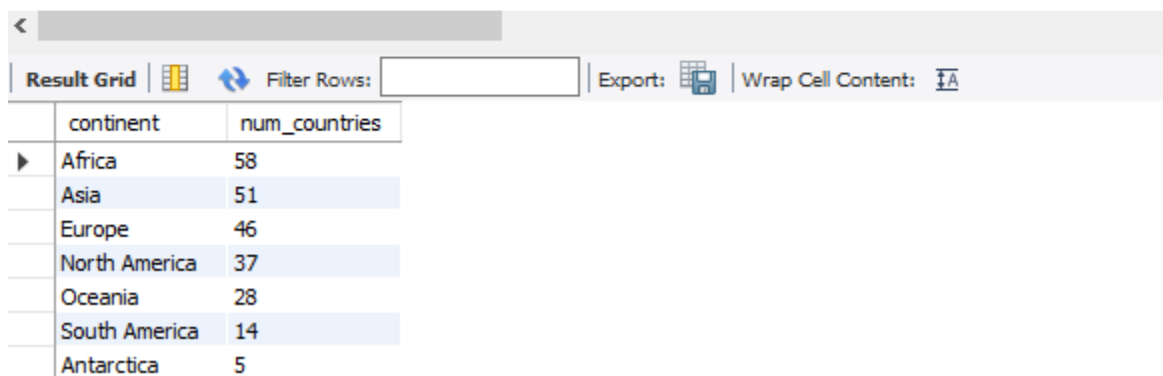
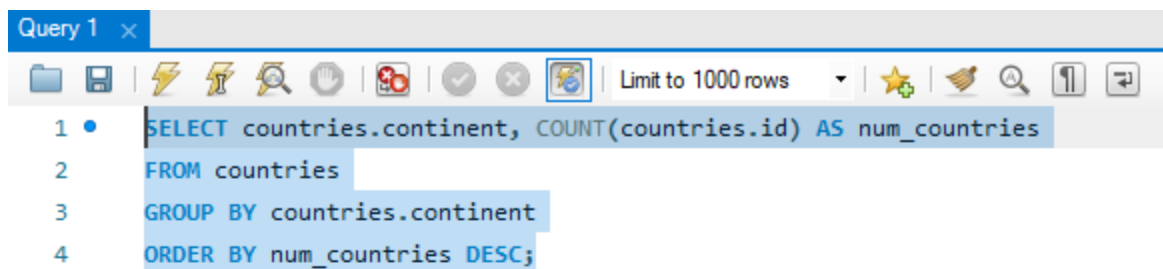


## MySQL Workbench Queries(Core):

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

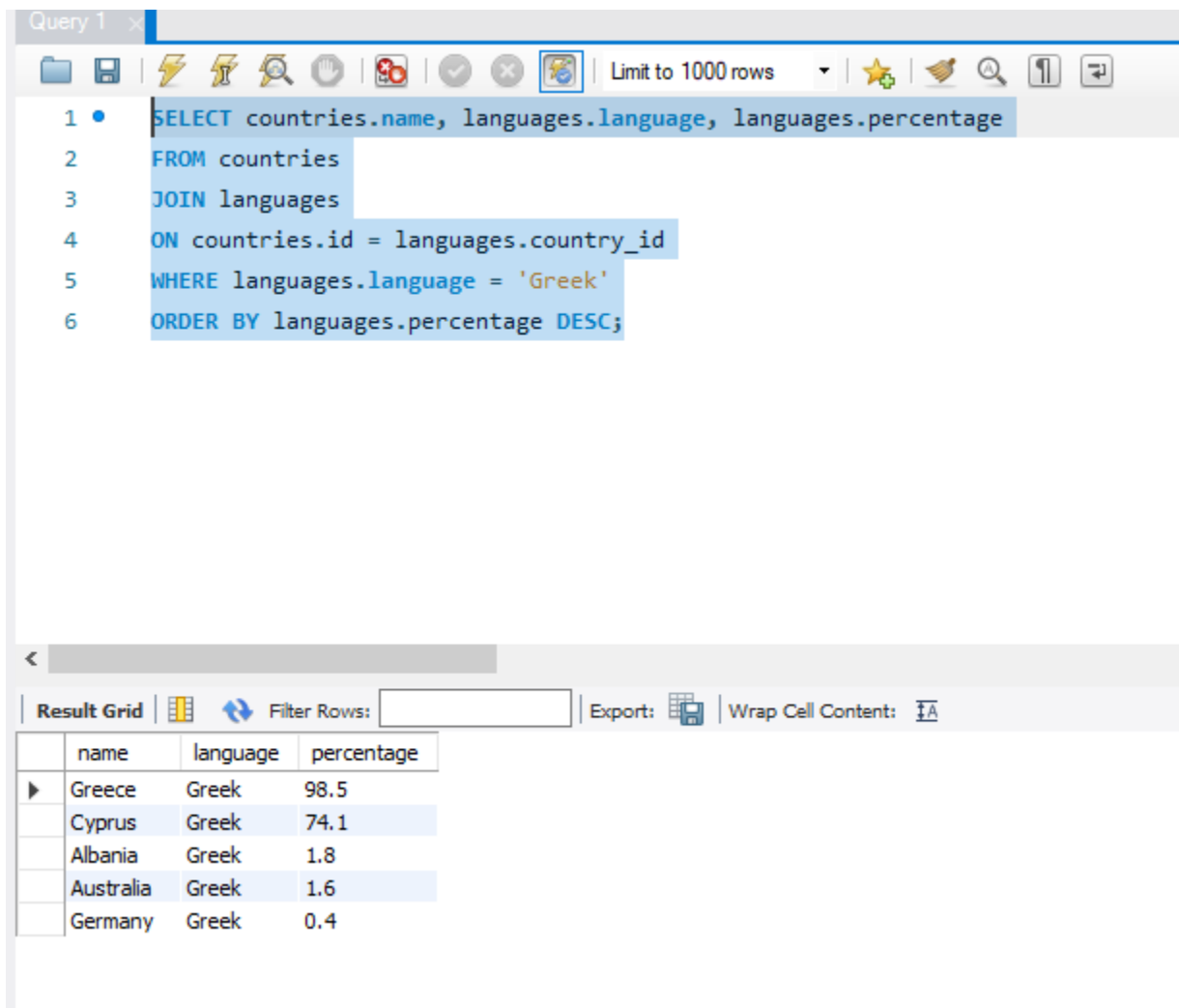
```
SELECT countries.continent, COUNT(countries.id) AS num_countries
FROM countries
GROUP BY countries.continent
ORDER BY num_countries DESC;
```

A screenshot of the MySQL Workbench Result Grid. The toolbar shows 'Result Grid', 'Filter Rows', 'Export', and 'Wrap Cell Content'. The results are displayed in a table with two columns: 'continent' and 'num\_countries'. The data is sorted in descending order by the number of countries per continent.

| continent     | num_countries |
|---------------|---------------|
| Africa        | 58            |
| Asia          | 51            |
| Europe        | 46            |
| North America | 37            |
| Oceania       | 28            |
| South America | 14            |
| Antarctica    | 5             |

2. What query would you run to get all the countries that speak Greek? 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 = 'Greek'
ORDER BY languages.percentage DESC;
```



The screenshot shows a database query editor interface. The top toolbar includes icons for file operations, execution, and settings, along with a 'Limit to 1000 rows' dropdown. The query editor displays the following SQL query:

```
1 • SELECT countries.name, languages.language, languages.percentage
2 FROM countries
3 JOIN languages
4 ON countries.id = languages.country_id
5 WHERE languages.language = 'Greek'
6 ORDER BY languages.percentage DESC;
```

Below the query editor, the 'Result Grid' tab is active, showing the results of the query. The results are displayed in a table with the following data:

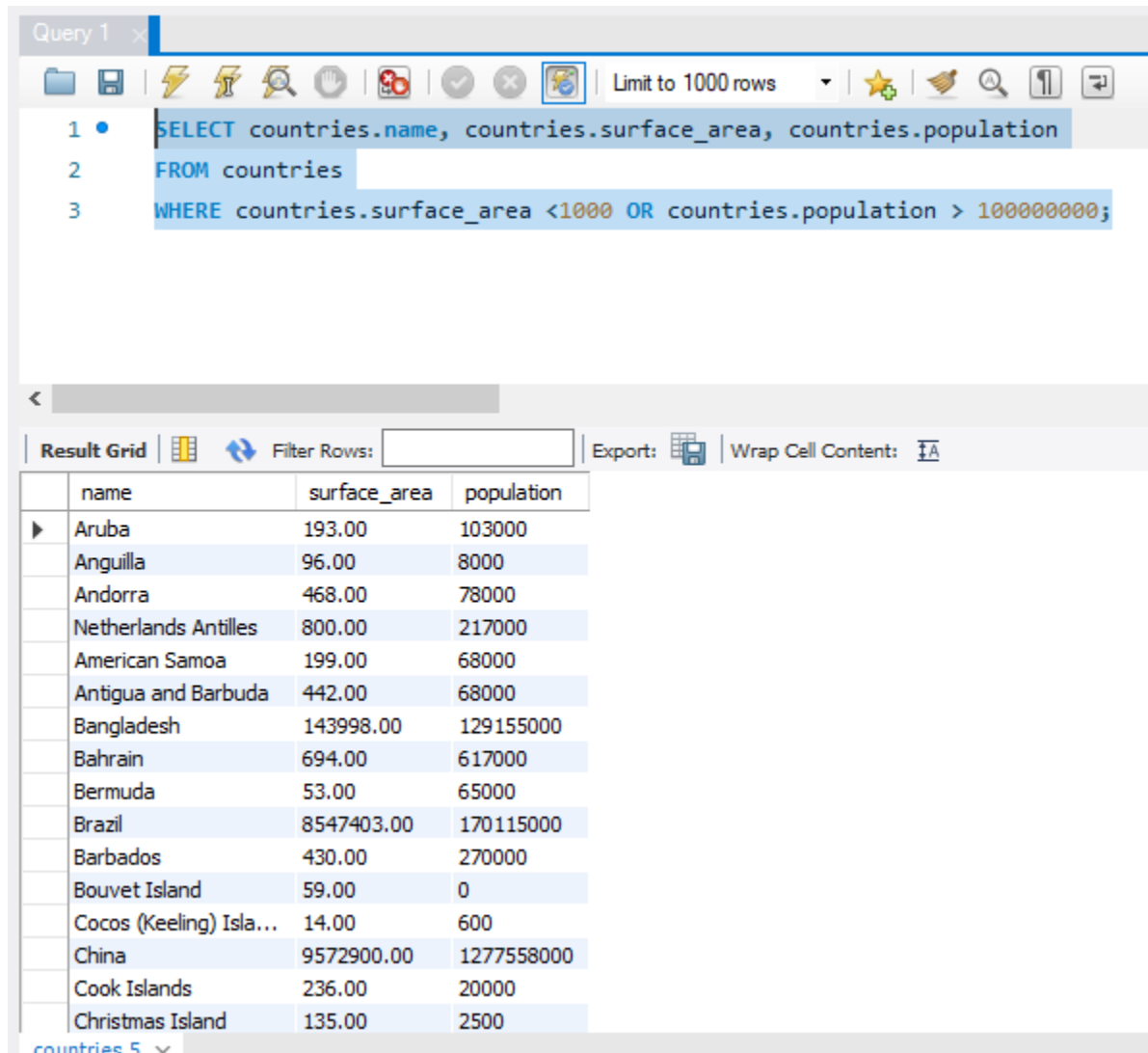
|   | name      | language | percentage |
|---|-----------|----------|------------|
| ▶ | Greece    | Greek    | 98.5       |
|   | Cyprus    | Greek    | 74.1       |
|   | Albania   | Greek    | 1.8        |
|   | Australia | Greek    | 1.6        |
|   | Germany   | Greek    | 0.4        |

3. What query would you run to get all the countries with Surface Area less than 1000 OR a population greater than 100,000,000? 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 <1000 OR countries.population > 100000000;
```



The screenshot shows a database query interface. At the top, a tab labeled 'Query 1' is active. Below it is a toolbar with various icons, including a 'Limit to 1000 rows' dropdown. The SQL query is entered in a text area:

```
1 • SELECT countries.name, countries.surface_area, countries.population
2 FROM countries
3 WHERE countries.surface_area <1000 OR countries.population > 100000000;
```

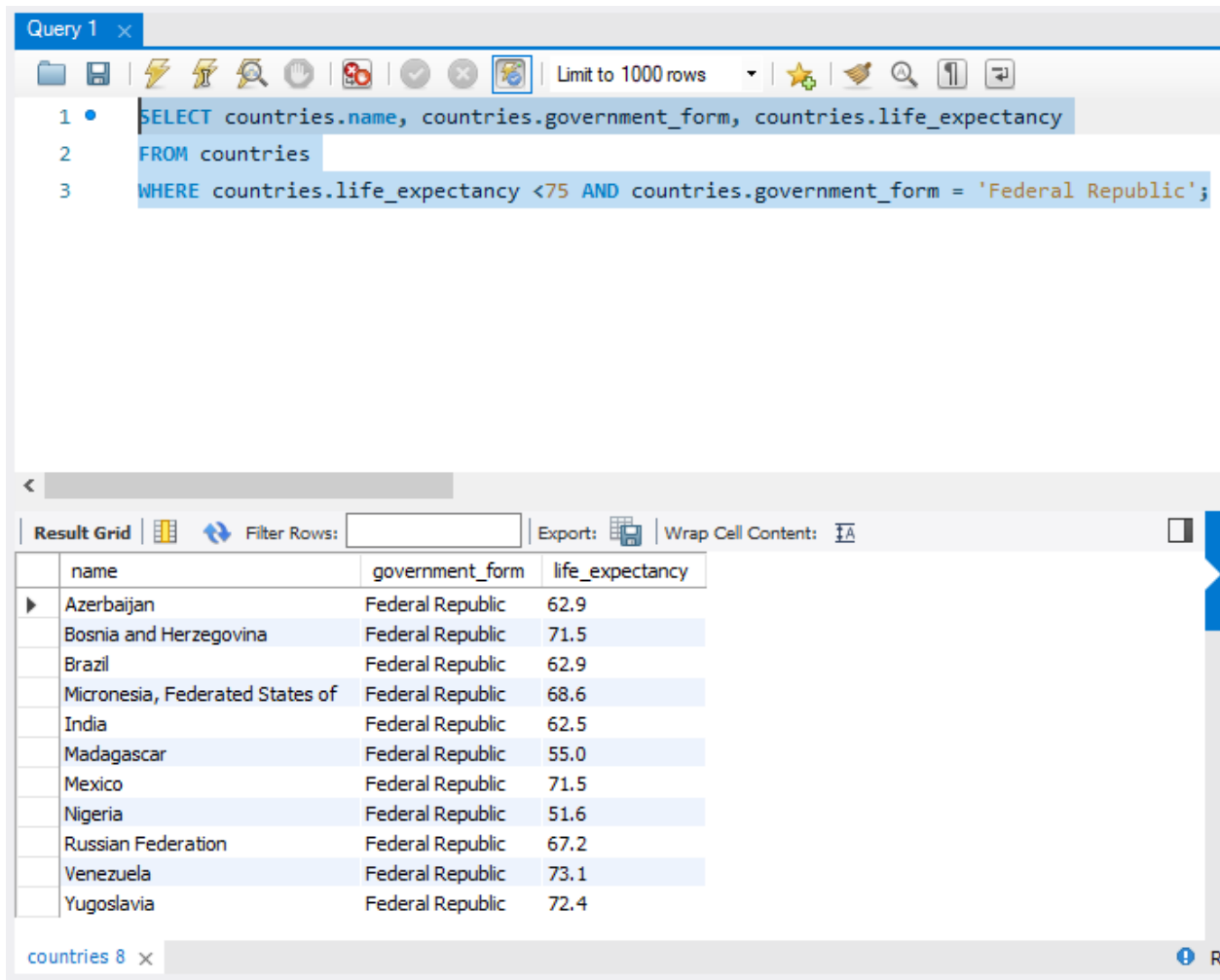
Below the query editor, there is a 'Result Grid' section. It includes a 'Filter Rows:' input field, an 'Export:' button, and a 'Wrap Cell Content:' checkbox. The results are displayed in a table with the following columns: name, surface\_area, and population.

|   | name                    | surface_area | population |
|---|-------------------------|--------------|------------|
| ▶ | Aruba                   | 193.00       | 103000     |
|   | Anguilla                | 96.00        | 8000       |
|   | Andorra                 | 468.00       | 78000      |
|   | Netherlands Antilles    | 800.00       | 217000     |
|   | American Samoa          | 199.00       | 68000      |
|   | Antigua and Barbuda     | 442.00       | 68000      |
|   | Bangladesh              | 143998.00    | 129155000  |
|   | Bahrain                 | 694.00       | 617000     |
|   | Bermuda                 | 53.00        | 65000      |
|   | Brazil                  | 8547403.00   | 170115000  |
|   | Barbados                | 430.00       | 270000     |
|   | Bouvet Island           | 59.00        | 0          |
|   | Cocos (Keeling) Isla... | 14.00        | 600        |
|   | China                   | 9572900.00   | 1277558000 |
|   | Cook Islands            | 236.00       | 20000      |
|   | Christmas Island        | 135.00       | 2500       |

At the bottom left, there is a tab labeled 'countries 5'.

4. What query would you run to get countries with a government form of “Federal Republic” with a life expectancy of less than 75 years? Include the country name, form of government, and life expectancy in the results.

```
SELECT countries.name, countries.government_form, countries.life_expectancy
FROM countries
WHERE countries.life_expectancy <75 AND countries.government_form = 'Federal Republic';
```



The screenshot shows a database query editor window titled "Query 1". The query text is as follows:

```
1 • SELECT countries.name, countries.government_form, countries.life_expectancy
2 FROM countries
3 WHERE countries.life_expectancy <75 AND countries.government_form = 'Federal Republic';
```

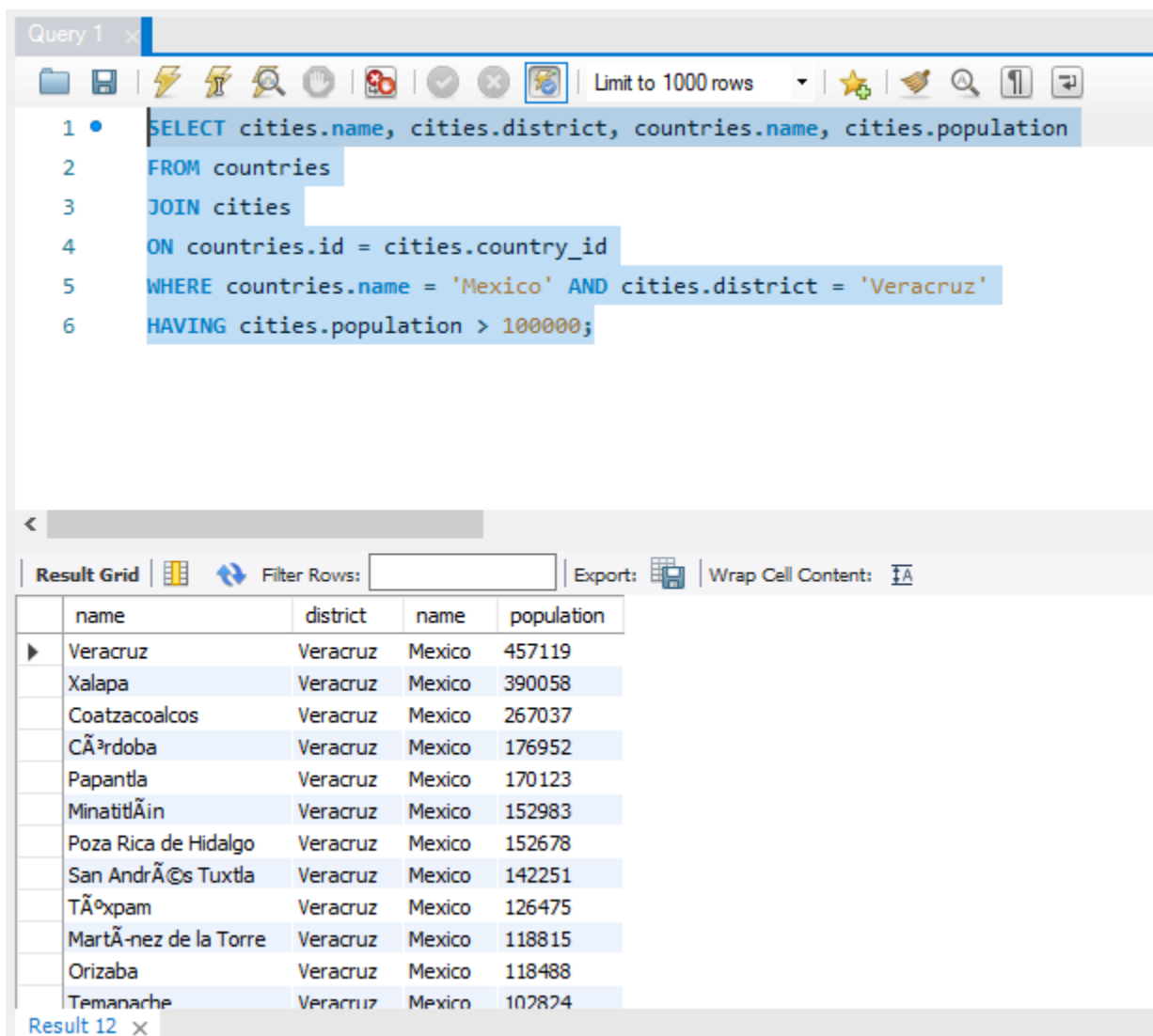
Below the query editor is the "Result Grid" section. It includes a "Filter Rows:" input field, an "Export:" button, and a "Wrap Cell Content:" checkbox. The results are displayed in a table with the following columns: name, government\_form, and life\_expectancy.

| name                            | government_form  | life_expectancy |
|---------------------------------|------------------|-----------------|
| Azerbaijan                      | Federal Republic | 62.9            |
| Bosnia and Herzegovina          | Federal Republic | 71.5            |
| Brazil                          | Federal Republic | 62.9            |
| Micronesia, Federated States of | Federal Republic | 68.6            |
| India                           | Federal Republic | 62.5            |
| Madagascar                      | Federal Republic | 55.0            |
| Mexico                          | Federal Republic | 71.5            |
| Nigeria                         | Federal Republic | 51.6            |
| Russian Federation              | Federal Republic | 67.2            |
| Venezuela                       | Federal Republic | 73.1            |
| Yugoslavia                      | Federal Republic | 72.4            |

At the bottom of the window, there is a status bar showing "countries 8" and a small icon.

5. What query would you run to get all the cities of Mexico inside the Veracruz district and have a population greater than 100,000? The query should return the Country Name, City Name, District, and Population.

```
SELECT cities.name, cities.district, countries.name, cities.population
FROM countries
JOIN cities
ON countries.id = cities.country_id
WHERE countries.name = 'Mexico' AND cities.district = 'Veracruz'
HAVING cities.population > 100000;
```



The screenshot displays a database query editor window titled "Query 1". The query is as follows:

```
1 SELECT cities.name, cities.district, countries.name, cities.population
2 FROM countries
3 JOIN cities
4 ON countries.id = cities.country_id
5 WHERE countries.name = 'Mexico' AND cities.district = 'Veracruz'
6 HAVING cities.population > 100000;
```

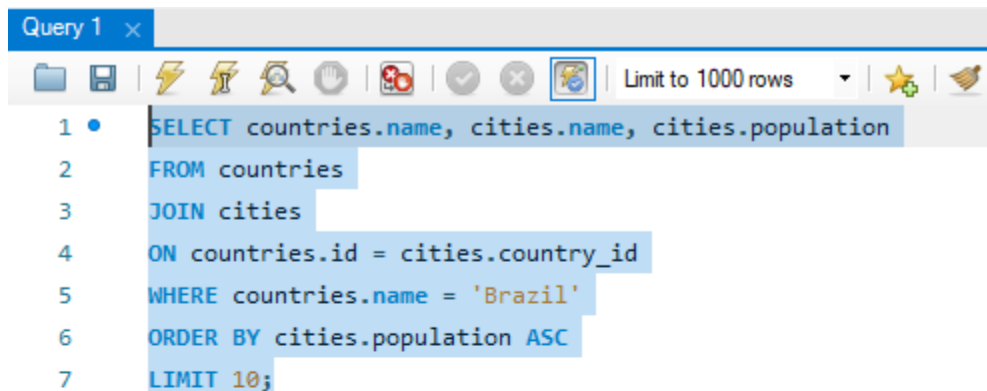
Below the query editor, the "Result Grid" is shown, displaying the results of the query. The grid has four columns: "name", "district", "name", and "population". The results are as follows:

|   | name                 | district | name   | population |
|---|----------------------|----------|--------|------------|
| ▶ | Veracruz             | Veracruz | Mexico | 457119     |
|   | Xalapa               | Veracruz | Mexico | 390058     |
|   | Coatzacoalcos        | Veracruz | Mexico | 267037     |
|   | Córdoba              | Veracruz | Mexico | 176952     |
|   | Papantla             | Veracruz | Mexico | 170123     |
|   | Minatitlán           | Veracruz | Mexico | 152983     |
|   | Poza Rica de Hidalgo | Veracruz | Mexico | 152678     |
|   | San Andrés Tuxtla    | Veracruz | Mexico | 142251     |
|   | Táxpam               | Veracruz | Mexico | 126475     |
|   | Martínez de la Torre | Veracruz | Mexico | 118815     |
|   | Orizaba              | Veracruz | Mexico | 118488     |
|   | Tehuacan             | Veracruz | Mexico | 107874     |

The "Result Grid" tab is selected, and the "Filter Rows" field is empty. The "Export" button is visible, and the "Wrap Cell Content" option is checked.

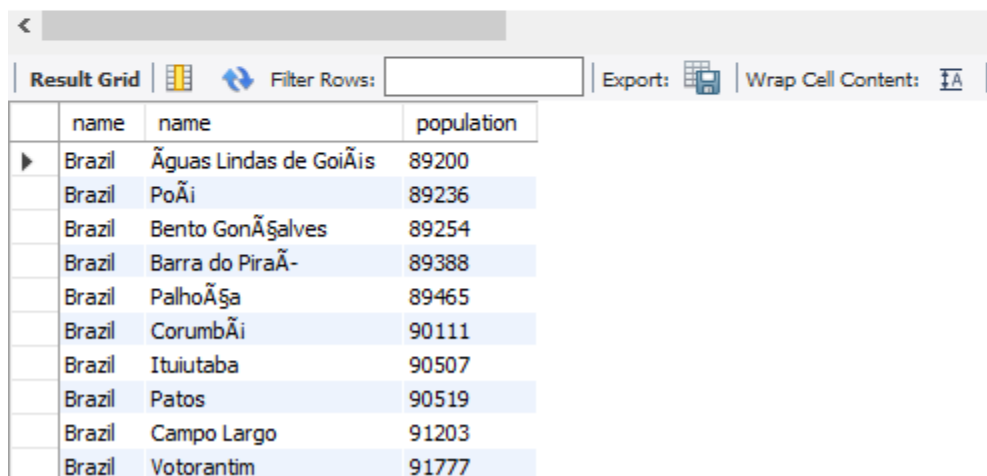
6. What query would you run to get all the ten cities in Brazil with the smallest population? Your query should include the country name, city name, and population. Arrange the result by population in ascending order. Limit the result to the 10 cities with the smallest population.

```
SELECT countries.name, cities.name, cities.population
FROM countries
JOIN cities
ON countries.id = cities.country_id
WHERE countries.name = 'Brazil'
ORDER BY cities.population ASC
LIMIT 10;
```



The screenshot shows a SQL query editor window titled "Query 1". The query is as follows:

```
1 • SELECT countries.name, cities.name, cities.population
2 FROM countries
3 JOIN cities
4 ON countries.id = cities.country_id
5 WHERE countries.name = 'Brazil'
6 ORDER BY cities.population ASC
7 LIMIT 10;
```

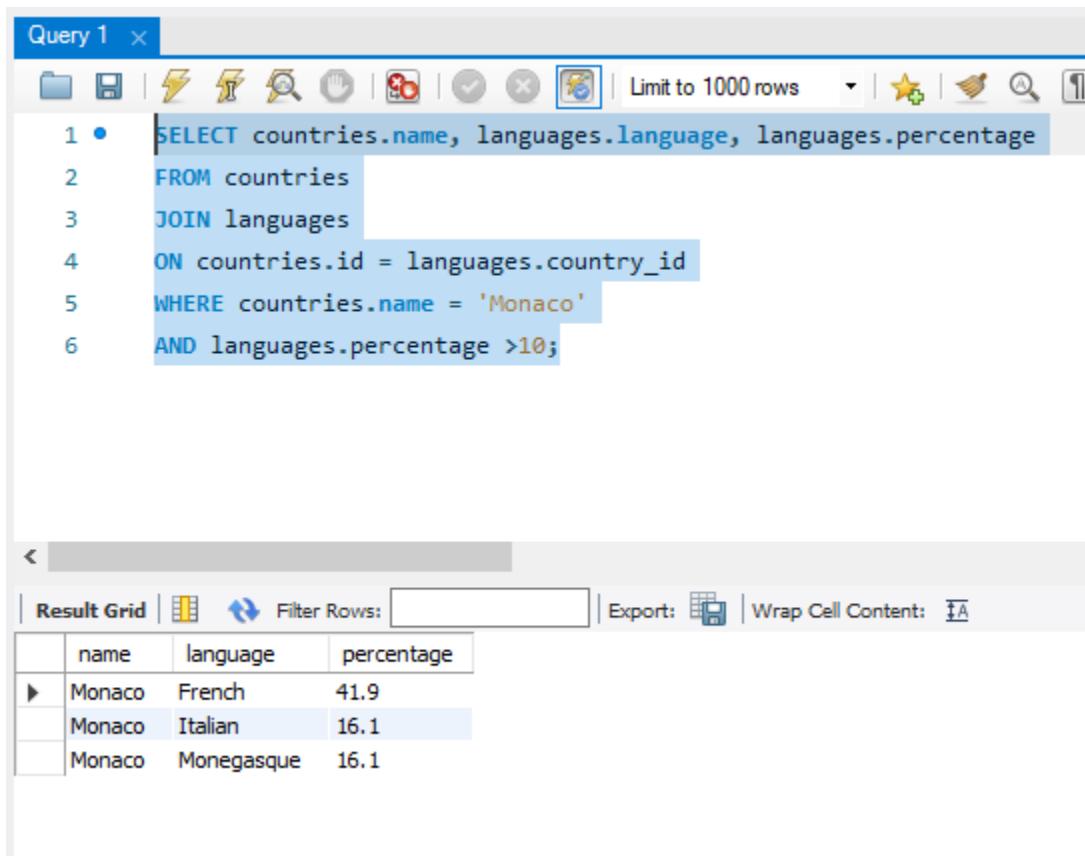


The screenshot shows the results of the query in a "Result Grid" view. The table has three columns: "name", "name", and "population". The results are as follows:

|   | name   | name                  | population |
|---|--------|-----------------------|------------|
| ▶ | Brazil | Águas Lindas de Goiás | 89200      |
|   | Brazil | Poão                  | 89236      |
|   | Brazil | Bento Gonçalves       | 89254      |
|   | Brazil | Barra do Piraí        | 89388      |
|   | Brazil | Palhoça               | 89465      |
|   | Brazil | Corumbá               | 90111      |
|   | Brazil | Ituiutaba             | 90507      |
|   | Brazil | Patos                 | 90519      |
|   | Brazil | Campo Largo           | 91203      |
|   | Brazil | Votorantim            | 91777      |

7. What query would you run to get all languages spoken greater than 10% in Monaco?  
Display the country name, language, and percentage.

```
SELECT countries.name, languages.language, languages.percentage
FROM countries
JOIN languages
ON countries.id = languages.country_id
WHERE countries.name = 'Monaco'
AND languages.percentage >10;
```



The screenshot shows a database query editor interface. At the top, there's a tab labeled "Query 1". Below the tab is a toolbar with various icons for file operations, execution, and viewing. The main area displays the SQL query: `SELECT countries.name, languages.language, languages.percentage FROM countries JOIN languages ON countries.id = languages.country_id WHERE countries.name = 'Monaco' AND languages.percentage >10;`. Below the query editor, there's a "Result Grid" section. It includes a "Filter Rows" input field, an "Export" button, and a "Wrap Cell Content" checkbox. The results are displayed in a table with three columns: "name", "language", and "percentage". The table contains three rows, all for "Monaco": "French" (41.9%), "Italian" (16.1%), and "Monegasque" (16.1%).

```
1 • SELECT countries.name, languages.language, languages.percentage
2   FROM countries
3   JOIN languages
4   ON countries.id = languages.country_id
5   WHERE countries.name = 'Monaco'
6   AND languages.percentage >10;
```

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

|   | name   | language   | percentage |
|---|--------|------------|------------|
| ▶ | Monaco | French     | 41.9       |
|   | Monaco | Italian    | 16.1       |
|   | Monaco | Monegasque | 16.1       |