WORLD II

GROUP 5
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1. How many countries in each continent, have life expectancy greater than 70?

```
SELECT country.continent, COUNT(country.Name) AS total_countries, country.LifeExpectancy
FROM country
WHERE country.LifeExpectancy > 70
GROUP BY country.continent
ORDER BY country.LifeExpectancy DESC;
```

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

continent	total_countries	LifeExpectancy
North America	29	78.4
Africa	6	75.5
South America	9	75.1
Oceania	9	75.1
Asia	22	74.1
Europe	36	71.6

2. How many countries in each continent have life expectancy between 60 and 70?

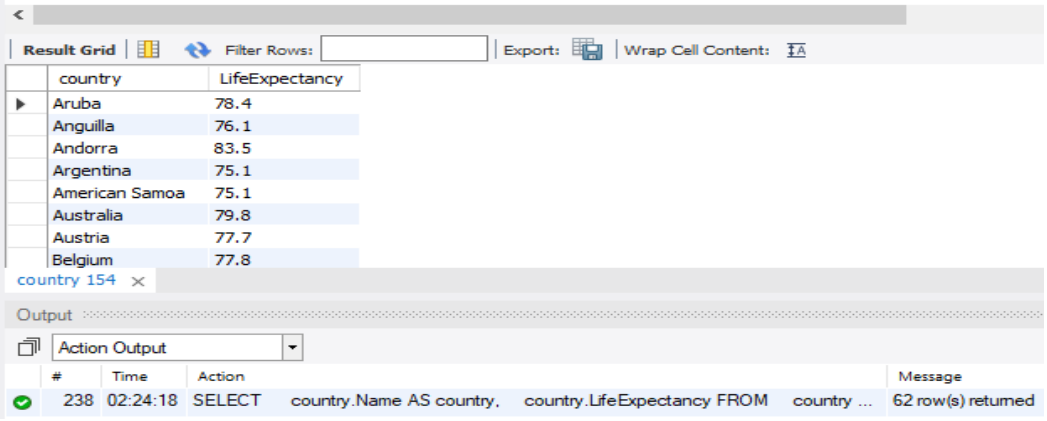
```
SELECT
    country.continent,
    COUNT(country.Name) AS total_countries,
    country.LifeExpectancy
FROM
    country
WHERE
    country.LifeExpectancy BETWEEN 60 AND 70
GROUP BY country.continent
```

Result Grid | Filter Rows: | Export: | Wrap

continent	total_countries	LifeExpectancy
Asia	21	66.4
Europe	8	68.0
South America	4	63.7
Africa	7	60.0
Oceania	10	67.9
North America	7	64.5

3. How many countries have life expectancy greater than 75?

```
SELECT
    country.Name AS country,
    country.LifeExpectancy
FROM
    country
WHERE
    country.LifeExpectancy > 75
```



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

country	LifeExpectancy
Aruba	78.4
Anguilla	76.1
Andorra	83.5
Argentina	75.1
American Samoa	75.1
Australia	79.8
Austria	77.7
Belgium	77.8

country 154

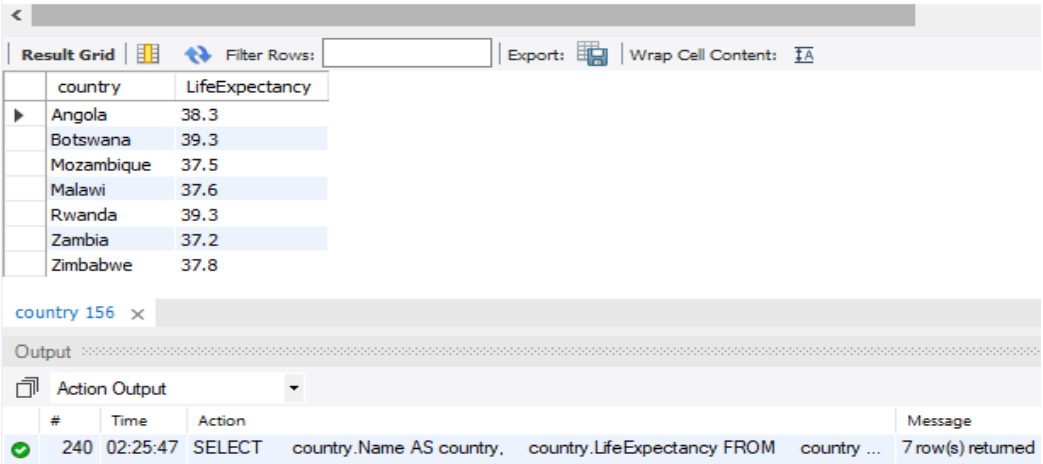
Output

Action Output

#	Time	Action	Message
238	02:24:18	SELECT country.Name AS country, country.LifeExpectancy FROM country ...	62 row(s) returned

4. How many countries have life expectancy less than 40?

```
SELECT
    country.Name AS country,
    country.LifeExpectancy
FROM
    country
WHERE
    country.LifeExpectancy < 40
```



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

country	LifeExpectancy
Angola	38.3
Botswana	39.3
Mozambique	37.5
Malawi	37.6
Rwanda	39.3
Zambia	37.2
Zimbabwe	37.8

country 156

Output

Action Output

#	Time	Action	Message
240	02:25:47	SELECT country.Name AS country, country.LifeExpectancy FROM country ...	7 row(s) returned

5. How many people live in the top 10 countries with the most population?

```
1  SELECT
2      country.Name AS country,
3      country.Population as population
4  FROM
5      country
6      ORDER BY country.Population DESC
7      LIMIT 10;
8
9
10
```

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

country	population
China	1277558000
India	1013662000
United States	278357000
Indonesia	212107000
Brazil	170115000
Pakistan	156483000
Russian Federation	146934000
Bangladesh	129155000

country 161

Output

Action Output

#	Time	Action	Message
245	02:44:41	SELECT country.Name AS country, country.Population as population FROM ...	10 row(s) returned

6. According to the world database, how many people are there in the world?

```
1  SELECT
2      SUM(country.Population) AS total_population
3  FROM
4      country
5
6
7
```

Result Grid | Filter Rows: | Export: | Wrap Ce

total_population
6078749450

7. Show results for continents where it shows the continent name and the total population. Only show results where the total_population for the continent is more than 500,00,000. If. the continent doesn't have 500,000,000 people, do NOT show the result.

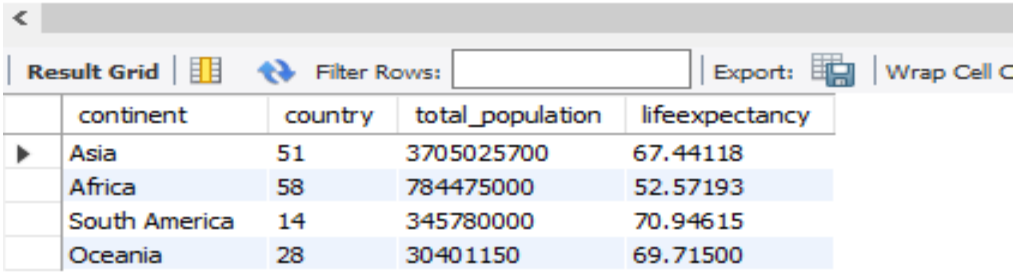
```
1  SELECT
2      country.Continent AS continent,
3      SUM(country.Population) AS total_population
4  FROM
5      country
6      GROUP BY country.Continent
7      ORDER BY
8       SUM(country.Population) DESC
9       LIMIT 3;
10
11
12
```

Result Grid | Filter Rows: | Export: | Wrap Ce

continent	total_population
Asia	3705025700
Africa	784475000
Europe	730074600

8. Show results of all continents that has average life expectancy for the continent to be less than 71. Show each of these continent names, how many countries there are in each of the continent, total population for the continent, as well as the life expectancy of this continent. For example, as Europe and North America both have continent life expectancy greater than 71, these continents shouldn't show up in your sql results.

```
1  •  SELECT
2         country.Continent AS continent,
3         COUNT(country.Name) AS country,
4         SUM(country.Population) AS total_population,
5         AVG(country.LifeExpectancy) AS lifeexpectancy
6     FROM
7         world.country
8     GROUP BY country.Continent
9     HAVING AVG(country.LifeExpectancy) < 71;
10
11
12
```



continent	country	total_population	lifeexpectancy
Asia	51	3705025700	67.44118
Africa	58	784475000	52.57193
South America	14	345780000	70.94615
Oceania	28	30401150	69.71500

For the average life expectancy, for simplicity, just assume that you can use the AVG aggregate function. To compute the true average life expectancy, we would need to do something slightly more advanced, but for now, just assume that you can use the AVG function for now.

Now that you've used the group by a bit, let's now have you use this together with other records that were joined from multiple tables.

Now, write a SQL query to obtain answers to the following questions:

1. How many cities are there for each of the country? Show the total city count for each country where you display the full country name.

```
SELECT
    country.continent,
    COUNT(country.Name) AS total_countries,
    country.LifeExpectancy
FROM
    country
WHERE
    country.LifeExpectancy BETWEEN 60 AND 70
GROUP BY country.continent
```

Result Grid | Filter Rows: | Export: | Wrap

continent	total_countries	LifeExpectancy
Asia	21	66.4
Europe	8	68.0
South America	4	63.7
Africa	7	60.0
Oceania	10	67.9
North America	7	64.5

2. For each language, find out how many countries speak each language.

```
SELECT country.Name AS country, countrylanguage.Language AS language, COUNT(country.Name) AS number_of_countries
FROM world.country
INNER JOIN world.countrylanguage
ON country.Code = countrylanguage.CountryCode
GROUP BY countrylanguage.Language;
```

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

country	language	number_of_countries
Aruba	Dutch	5
Aruba	English	60
Aruba	Papiamento	2
Aruba	Spanish	28
Afghanistan	Balochi	4
Afghanistan	Dari	1
Afghanistan	Pashto	2

3. For each language, find out how many countries use that language as the official language.

```
SELECT
    countrylanguage.Language AS language,
    COUNT(country.Name) AS total_countries,
    countrylanguage.IsOfficial AS isofficial
FROM
    countrylanguage
        INNER JOIN
    country ON countrylanguage.CountryCode = country.Code
WHERE
    countrylanguage.IsOfficial = TRUE
GROUP BY countrylanguage.Language;
```

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

language	total_countries	isofficial
Dutch	4	T
Dari	1	T
Pashto	1	T
English	44	T
Albaniana	1	T
Catalan	1	T
Papiamento	1	T

Result 51

Output

Action Output

#	Time	Action	Message
67	21:29:44	SELECT countrylanguage.Language AS language, COUNT(country.Name) AS total_...	102 row(s) returned

4. For each continent, find out how many cities there are (according to this database) and the average population of the cities for each continent. For example, for continent A, have it state the number of cities for that continent, and the average city population for that continent.

```
SELECT
    country.Continent AS continent,
    COUNT(city.Name) AS total_cities,
    AVG(city.Population) AS average_cities_population
FROM
    country
        INNER JOIN
    city ON country.Code = city.CountryCode
GROUP BY country.Continent;
```

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

continent	total_cities	average_cities_population
Asia	1766	395019.3109
Europe	841	287684.6766
North America	581	289587.5749
Africa	366	371143.6585
Oceania	55	252475.4364
South America	470	366037.9979

5. (Advanced) Find out how many people in the world speak each language. Make sure the total sum of. this number is comparable to the total population in the world.

```
1 •  SELECT
2        countrylanguage.Language AS language,
3        SUM((countrylanguage.Percentage * 0.01) * (country.Population)) AS total_population
4    FROM
5        countrylanguage
6            INNER JOIN
7        country ON countrylanguage.CountryCode = country.Code
8    GROUP BY countrylanguage.Language
9    ORDER BY total_population DESC;
```

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

language	total_population
Chinese	1191843539.000
Hindi	405633070.000
Spanish	355029462.000
English	347077867.300
Arabic	233839238.700
Bengali	209304719.000
Portuguese	177595269.400
Russian	160807561.300