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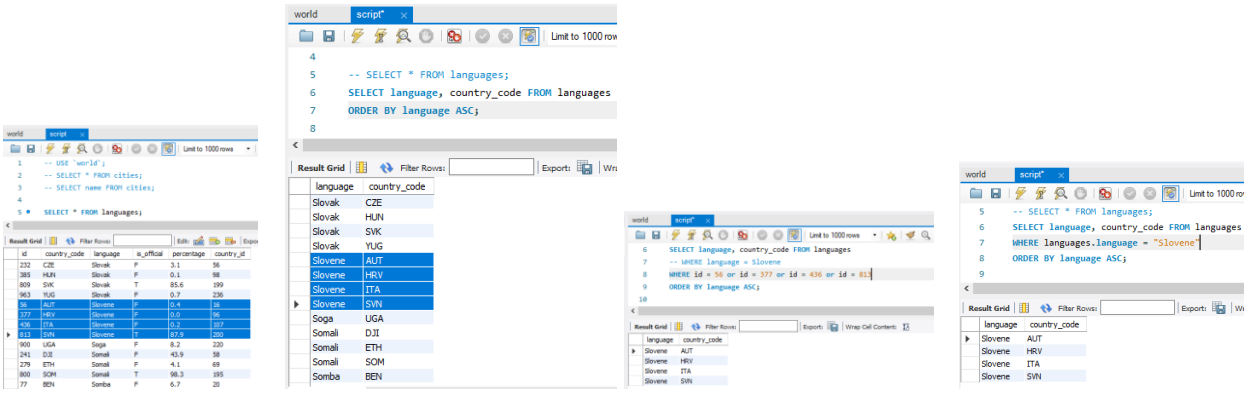
mySQL Install: https://youtu.be/0cNOD1KMJ40

Assignment: MySQL Countries

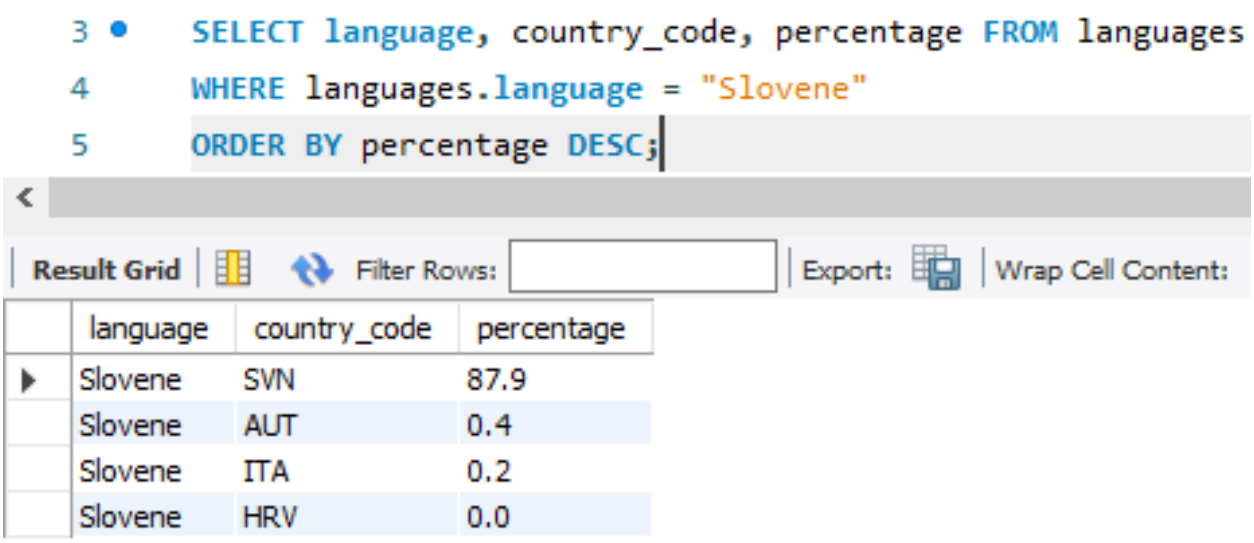
Queries

1. What query would you run to get all the **countries** that **speak Slovene**?
   - Your query should return:
     - Name of the country
     - Language
     - Language percentage
   - Your query should arrange the result by language percentage in descending order. (1)

```
SELECT language, country_code, percentage FROM languages
WHERE languages.language = "Slovene"
ORDER BY percentage DESC;
```



Steps taken to arrive at solution

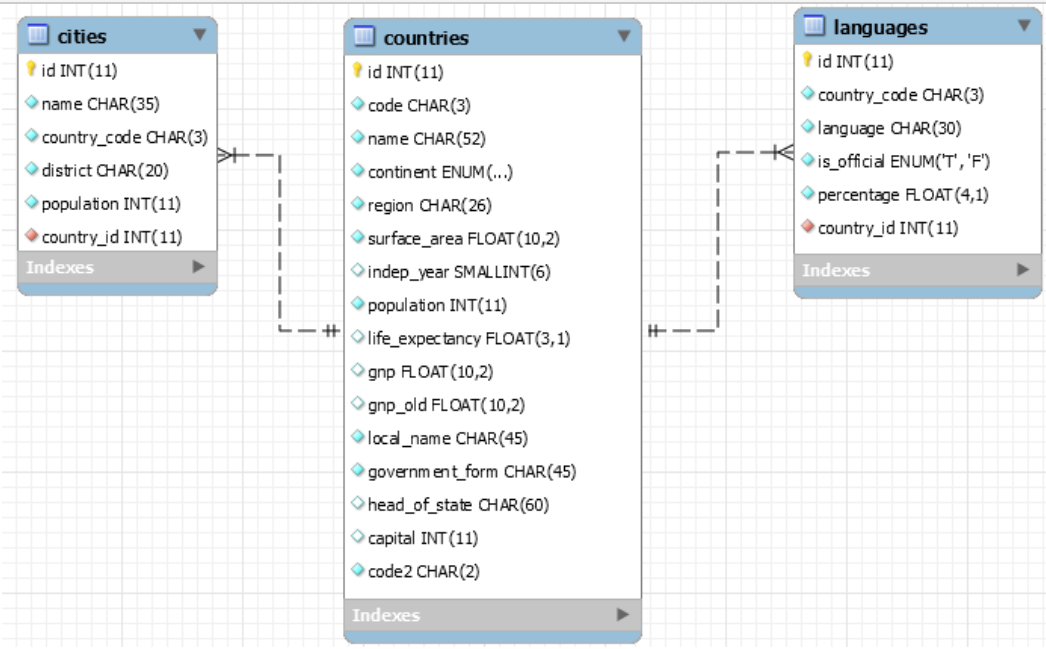


2. What query would you run to display:

- ➢ **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**. (3)

```
SELECT cities.country_id as Country_ID, countries.name AS Country_Name, COUNT(*) AS Number_of_Cities
FROM cities
JOIN countries ON countries.id = cities.country_id
GROUP BY countries.name
ORDER BY Number_of_Cities DESC;
```




```
14 •  SELECT cities.country_id as Country_ID, countries.name AS Country_Name, cities.name AS City_Name FROM cities
15    JOIN countries ON countries.id = cities.country_id
```

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

Country_ID	Country_Name	City_Name
9	Argentina	Tandil
10	Armenia	Yerevan
10	Armenia	Gjumri
10	Armenia	Vanadzor
11	American Samoa	Tafuna
11	American Samoa	Fagatogo

```
13 •  SELECT cities.country_id as Country_ID, countries.name AS Country_Name, COUNT(*) AS Number_of_Cities FROM cities
14    JOIN countries ON countries.id = cities.country_id
15    GROUP BY countries.name
16    ORDER BY Number_of_Cities DESC;
```

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

Country_ID	Country_Name	Number_of_Cities
195	Somalia	3
10	Armenia	3
108	Jamaica	3

Yerevan
Երևան

City

From top left: Yerevan skyline with Mount Ararat • Karen Demirchyan Complex • Tsitsernakaberd Genocide Memorial • Saint Gregory Cathedral • Tamanyan Street and the Yerevan Opera • Cafesjian Museum at the Cascade • Republic Square at night

Flag

Seal

Nickname(s): "The Pink City"[1][2][3] (վարդագույն քաղաք[4] *vardaguyn k'aghak'* , literally "rosy city")[5]

Location of Yerevan in Armenia

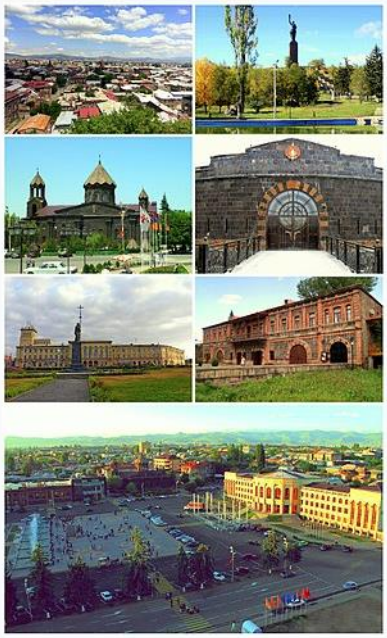
Show map of Armenia
Show map of Europe
Show map of Asia
Show all

Coordinates: 40°10'53"N 44°30'52"E

Country Armenia

Gyumri
Գյումրի

City
Urban Community



From top left:
Gyumri skyline • Mother Armenia Cathedral of Gyumri • Sev Berd Fortress Independence Square • Dzitoghtsyan Museum Vartanants Square and Gyumri City Hall

Flag

Seal

Nickname(s): *Hayrakaghak* ("Father-city")

Location of Gyumri in Armenia

Coordinates: 40°47'22"N 43°50'51"E

Country Armenia
Province Shirak

Vanadzor
Վանաձոր

City

From top left:

Vanadzor Central Park
Vanadzor skyline • Pambak River
Church of the Holy Mother of God • Russian Church of the Nativity
Lori Province administration • Hayk Square
Pambak Mountains around Vanadzor

Seal

Coordinates: 40°48'46"N 44°29'18"E

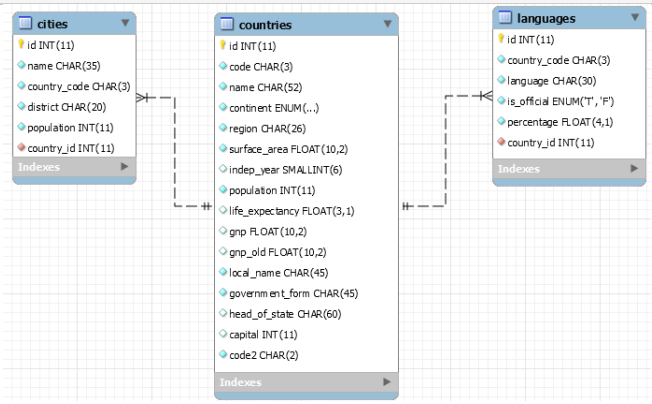
Cities used as a sanity check. [They are the 3 cities listed for Armenia]

3. 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 as City_Name, cities.population, cities.country_id, countries.name as Country_Name
FROM cities
JOIN countries ON countries.id = cities.country_id
WHERE cities.population > 500e3 AND countries.name = 'Mexico'
ORDER BY population DESC;
```




```
13  -- ==========================================================================================
14  -- -- Part 3
15  SELECT cities.name as City_Name, cities.population, cities.country_id, countries.name as Country_Name FROM cities
16  JOIN countries ON countries.id = cities.country_id
17  WHERE cities.population > 500e3 AND countries.name = 'Mexico'
18  ORDER BY population DESC;
```

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

City_Name	population	country_id	Country_Name
Ciudad de MÃ©xico	8591309	136	Mexico
Guadalajara	1647720	136	Mexico
Ecatepec de Morelos	1620303	136	Mexico
Puebla	1346176	136	Mexico
NezahualcÃ³yotl	1224924	136	Mexico
JuÃ¡rez	1217818	136	Mexico
Tijuana	1212232	136	Mexico
LeÃ³n	1133576	136	Mexico
Monterrey	1108499	136	Mexico
Zapopan	1002239	136	Mexico
Naucalpan de JuÃ¡rez	857511	136	Mexico
Mexicali	764902	136	Mexico
CuliacÃ¡n	744859	136	Mexico
Acapulco de JuÃrez	721011	136	Mexico
Tlalnepantla de Baz	720755	136	Mexico
MÃ©rida	703324	136	Mexico
Chihuahua	670208	136	Mexico
San Luis PotosÃ-	669353	136	Mexico
Guadalupe	668780	136	Mexico
Toluca	665617	136	Mexico
Aguascalientes	643360	136	Mexico
QuerÃ©taro	639839	136	Mexico
Morelia	619958	136	Mexico
Hermosillo	608697	136	Mexico
Saltillo	577352	136	Mexico
TorreÃ³n	529093	136	Mexico
Centro (Villahermosa)	519873	136	Mexico

```
19 •  SELECT * FROM countries
20    WHERE countries.name = "Mexico"
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	code	name	continent	region	surface_area	indep_year	population	life_expectancy	gnp	gnp_old	local_name	government_form	head_of_state	capital	code2
136	MEX	Mexico	North America	Central America	1958201.00	1810	98881000	71.5	414972.00	401461.00	MÃ©xico	Federal Republic	Vicente Fox Quesada	2515	MX
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
16 •  SELECT name, population, country_id FROM cities
17    WHERE cities.population > 500e3 AND cities.country_id = 136
```

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

name	population	country_id
Ciudad de MÃ©xico	8591309	136
Guadalajara	1647720	136
Ecatepec de Morelos	1620303	136
Puebla	1346176	136
NezahualcÃ³yotl	1224924	136
JuÃ¡rez	1217818	136
Tijuana	1212232	136
LeÃ³n	1133576	136
Monterrey	1108499	136
Zapopan	1002239	136
Naucalpan de JuÃ¡rez	857511	136
Mexicali	764902	136
CuliacÃ�n	744859	136
Acapulco de JuÃ¡rez	721011	136
Tlalnepantla de Baz	720755	136
MÃ©rida	703324	136
Chihuahua	670208	136
San Luis PotosÃ-	669353	136
Guadalupe	668780	136
Toluca	665617	136
Aguascalientes	643360	136
QuerÃ©taro	639839	136
Morelia	619958	136
Hermosillo	608697	136
Saltillo	577352	136
TorreÃ³n	529093	136
Centro (Villahermosa)	519873	136

```
16 •  SELECT name, population, country_id FROM cities
17    WHERE cities.population > 500e3
```

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

name	population	country_id
Kabul	1780000	2
Amsterdam	731200	159
Rotterdam	593321	159
Alger	2168000	62
Oran	609823	62

Steps taken to work toward final solution.

4. What query would you run to get **all languages in each country with a percentage greater than 89%**?

- Your query should arrange the result by percentage in descending order. (1)

```
SELECT language, country_code, percentage FROM languages
WHERE languages.percentage > 89
ORDER BY percentage DESC;
```

```
-- Part 4
SELECT language, country_code, percentage FROM languages
WHERE languages.percentage > 89
ORDER BY percentage DESC;
```

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

language	country_code	percentage
Arabic	YEM	99.6
Serbo-Croatian	BIH	99.2
Creole English	VCT	99.1
Japanese	JPN	99.1
Portuguese	PRT	99.0
Spanish	COL	99.0
Malagasy	MDG	98.9
Kiribati	KIR	98.9
Arabic	EGY	98.8
Hungarian	HUN	98.5
Greek	GRC	98.5
English	IRL	98.4
Tongan	TON	98.3
Somali	SOM	98.3
Kirundi	BDI	98.1
Spanish	DOM	98.0

5. What query would you run to get:

- All the countries
- With Surface Area below 501
- And population greater than 100,000?

```
SELECT name, surface_area, population FROM countries
WHERE surface_area < 501 AND population > 100e3
```

```
-- ==================================================
-- Part 5
SELECT name, surface_area, population FROM countries
WHERE surface_area < 501 AND population > 100e3
```

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

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

6. 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?

```
SELECT name, government_form, capital, life_expectancy FROM countries
WHERE capital > 200 AND government_form = 'Constitutional Monarchy' AND life_expectancy > 75
order by life_expectancy DESC
```

```
-- ==========================================================================================
-- Part 6
SELECT name, government_form, capital, life_expectancy FROM countries
WHERE capital > 200 AND government_form = 'Constitutional Monarchy' AND life_expectancy > 75
order by life_expectancy DESC
```

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

name	government_form	capital	life_expectancy
Japan	Constitutional Monarchy	1532	80.7
Sweden	Constitutional Monarchy	3048	79.6
Spain	Constitutional Monarchy	653	78.8
Liechtenstein	Constitutional Monarchy	2446	78.8
Monaco	Constitutional Monarchy	2695	78.8
Norway	Constitutional Monarchy	2807	78.7
New Zealand	Constitutional Monarchy	3499	77.8
United Kingdom	Constitutional Monarchy	456	77.7
Jordan	Constitutional Monarchy	1786	77.4
Luxembourg	Constitutional Monarchy	2452	77.1
Denmark	Constitutional Monarchy	3315	76.5
Jamaica	Constitutional Monarchy	1530	75.2

7. 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 AS Country_Name, cities.name AS City_Name, district as District,
cities.population as Country_Population FROM cities
JOIN countries ON countries.id = cities.country_id
WHERE cities.population > 500e3 AND cities.district = 'Buenos Aires' AND countries.name = 'Argentina'
```

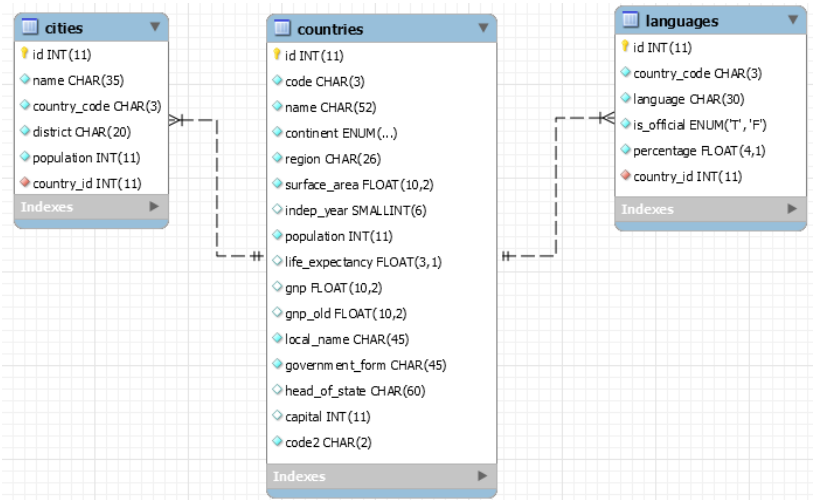
```
-- ==========================================================================================
-- Part 7
SELECT countries.name AS Country_Name, cities.name AS City_Name, district as District, cities.population as Country_Population FROM cities
JOIN countries ON countries.id = cities.country_id
WHERE cities.population > 500e3 AND cities.district = 'Buenos Aires' AND countries.name = 'Argentina'
```

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

Country_Name	City_Name	District	Country_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

8. 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. (2)




```
-- ==========================================================================================
-- Part 8
SELECT name AS Country_Name, region as Region_Name, COUNT(*) AS Number_of_Countries_in_Region FROM countries
GROUP BY region
ORDER BY Number_of_Countries_in_Region DESC;
```

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

Country_Name	Region_Name	Number_of_Countries_in_Region
Aruba	Caribbean	24
Burundi	Eastern Africa	20
United Arab Emirates	Middle East	18
Benin	Western Africa	17
Albania	Southern Europe	15
Afghanistan	Southern and Central Asia	14
Argentina	South America	14
Brunei	Southeast Asia	11
American Samoa	Polynesia	10
Bulgaria	Eastern Europe	10
Austria	Western Europe	9
Angola	Central Africa	9
Belize	Central America	8
China	Eastern Asia	8
Denmark	Nordic Countries	7
Algeria	Northern Africa	7
Micronesia, Federat...	Micronesia	7
Australia	Australia and New Zealand	5
Botswana	Southern Africa	5
Fiji Islands	Melanesia	5
Bermuda	North America	5
Antarctica	Antarctica	5
Estonia	Baltic Countries	3
United Kingdom	British Islands	2
United States Minor ...	Micronesia/Caribbean	1

```
49 •  SELECT name AS Country_Name, region as Region_Name from Countries
```

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

Country_Name	Region_Name
Svalbard and Jan M...	Nordic Countries
Sweden	Nordic Countries
Bermuda	North America
Canada	North America
Greenland	North America
Saint Pierre and Miq...	North America
United States	North America
Algeria	Northern Africa

- **Showing that there are 5-countries in North-America region**
- **A few other regions were tested also**