WEEK 5 - SQL Exercises _SOLUTIONS

A) Using Covid dataset

The latest data you can find here:

https://github.com/CSSEGISandData/COVID-19/tree/master/csse_covid_19_data/csse_covid_19_daily_reports

1. Find the total number of confirmed cases worldwide.

197'168

2. Find the total number of deaths in China.

3230

3. How many confirmed cases in USA in California, Colorado and Conneticut?

[look at the data, to see how you can formulate this query] (see how the data are)

926

4. Show all the provinces and confirmed cases in the USA ordered by number of confirmed cases (descending)

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province	confirmed
New York	1706
Washington	1076
California	698
New Jersey	267
Massachusetts	218
Florida	216
Louisiana	196
Illinois	161
Colorado	160
Georgia	146

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5. How many will be the estimated cases next week for Switzerland if each week the cases multiply by 4?

10'800

6. Find all the records not in USA where confirmed cases are more than 100 (order in descending manner).

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province	country	last_update	confirmed	deaths	recovered	latitude	longitude
Hubei	China	2020-03-17T11:53:10	67799	3111	56003	30.9756	112.2707
	Italy	2020-03-17T18:33:02	31506	2503	2941	41.8719	12.5674
	Iran	2020-03-17T15:13:09	16169	988	5389	32.4279	53.688
	Spain	2020-03-17T20:53:02	11748	533	1028	40.4637	-3.7492
	Germany	2020-03-17T18:53:02	9257	24	67	51.1657	10.4515
	Korea, South	2020-03-17T10:33:03	8320	81	1407	35.9078	127.7669
France	France	2020-03-17T19:13:08	7652	148	12	46.2276	2.2137
	Switzerland	2020-03-17T16:33:04	2700	27	4	46.8182	8.2275
United Kingdom	United Kingdom	2020-03-17T15:13:09	1950	55	52	55.3781	-3.436
Netherlands	Netherlands	2020-03-17T15:13:11	1705	43	2	52.1326	5.2913

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7. Find all the records not about USA and China that have between 10 and 20 deaths

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province	country	last_update	confirmed	deaths	recovered	latitude	longitude
	Philippines	2020-03-17T10:33:03	187	12	5	12.8797	121.774
	Iraq	2020-03-17T15:33:06	154	11	32	33.2232	43.6793
	Belgium	2020-03-17T15:33:06	1243	10	1	50.5039	4.4699

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B) Using Temperatures dataset

Now, let's use the **temperatures** datasets : https://hec.unil.ch/info1ere/sqlexplorer/Temperatures

1. Find all cities with temperature between 15 and 25, return city, country, temperature

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city	country	temperature						
Adana	Turkey	18.67						
Algeciras	Spain	17.38						
Athens	Greece	17.41						
Badajoz	Spain	15.61						
Barcelona	Spain	15.78						
Bari	Italy	15.15						
Cartagena	Spain	17.32						
Catania	Italy	15.04						
Cosenza	Italy	16.6						
Denizli	Turkey	15.02						
Showing 1 to 10 of 25 entries								

2. Find all temperature records that contain a country whose name starts from A or a

▼ RÉSULTAT								
city	country	latitude	longitude	temperature				
Andorra	Andorra	42.5	1.52	9.6				
Elbasan	Albania	41.12	20.08	15.18				
Graz	Austria	47.08	15.41	6.91				
Innsbruck	Austria	47.28	11.41	4.54				
Linz	Austria	48.32	14.29	6.79				
Salzburg	Austria	47.81	13.04	4.62				
Vienna	Austria	48.2	16.37	7.86				
Chausina 1	4-7-67							

Showing 1 to 7 of 7 entries



3. What is the maximum temperature in Austria?

7.86

4. What is the average temperature in records that are from Italy or Greece?

14.1963157894736842

5. Find all the countries and their population without coastline and with population more than 9 million (population column is in millions).

▼ RÉSULTAT

country	population
Czech Republic	10.55
Hungary	9.82
Belarus	9.48

Showing 1 to 3 of 3 entries



6. Find all cities with latitude more than 45, no coastline and population more than 9 million.

▼ RÉS	SULTAT							
city	country	latitude	longitude	temperature	country	population	eu	coastline
Brest	Belarus	52.1	23.7	6.73	Belarus	9.48	f	f
Brno	Czech Republic	49.2	16.61	7.86	Czech Republic	10.55	t	f
Budapest	Hungary	47.5	19.08	9.55	Hungary	9.82	t	f
Debrecen	Hungary	47.53	21.63	8.87	Hungary	9.82	t	f
Gyor	Hungary	47.7	17.63	9.65	Hungary	9.82	t	f
Hrodna	Belarus	53.68	23.83	6.07	Belarus	9.48	f	f
Mazyr	Belarus	52.05	29.27	6.25	Belarus	9.48	f	f
Minsk	Belarus	53.9	27.57	5.28	Belarus	9.48	f	f
Orsha	Belarus	54.52	30.42	4.93	Belarus	9.48	f	f
Ostrava	Czech Republic	49.83	18.25	7.66	Czech Republic	10.55	t	f

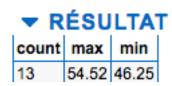
Showing 1 to 10 of 13 entries

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7. **How many** countries have latitude more than 45, no coastline and population more than 9 million.

13

8. How many cities have latitude more than 45, no coastline and population more than 9 million, AND what is the maximum and minimum latitude of those cities?



9. Find the cities and countries without coastline. Sort them by descending longitude and return just 5 results.

▼ RÉSULTAT

city	country
Orsha	Belarus
Mazyr	Belarus
Chisinau	Moldova
Balti	Moldova
Minsk	Belarus

10. What are the countries without coastline?



11. Find all pairs of cities that are close together, i.e., longitude and latitude are less than 0.5 apart (self-join: join a table with itself), do not include a city with itself!

▼ RÉSULTAT

city	country	latitude	longitude	temperature	city	country	latitude	longitude	temperature
Adana	Turkey	36.99	35.32	18.67	Tarsus	Turkey	36.92	34.88	11.21
Ancona	Italy	43.6	13.5	13.52	Sarajevo	Bosnia and Herzegovina	43.85	13.38	9.6
Basel	Switzerland	47.58	7.59	6.68	Freiburg	Germany	48	7.87	6.68
Basel	Switzerland	47.58	7.59	6.68	Mulhouse	France	47.75	7.35	6.68
Bergamo	Italy	45.7	9.67	9.12	Milan	Italy	45.47	9.21	6.65
Cartagena	Spain	37.6	-0.98	17.32	Murcia	Spain	37.98	-1.13	15
Freiburg	Germany	48	7.87	6.68	Basel	Switzerland	47.58	7.59	6.68
Heidelberg	Germany	49.42	8.7	8.47	Karlsruhe	Germany	49	8.4	8.88
Horlivka	Ukraine	48.3	38.05	7.12	Makiyivka	Ukraine	48.03	37.97	8.7
Karlsruhe	Germany	49	8.4	8.88	Heidelberg	Germany	49.42	8.7	8.47

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12. What is the maximum latitude for all countries in EU? (we have maximum, which hints it may be a "group by" if it is for all entities, which it is. If it was for one entity, then we wouldn't need a group by.)

▼ RÉSULTAT

country	max
Sweden	67.85
Finland	65
Estonia	59.43
United Kingdom	57.47
Denmark	57.03
Latvia	56.95
Lithuania	55.72
Poland	54.2
Germany	54.07
Ireland	53.33

Showing 1 to 10 of 25 entries

