



LINKING GLOBAL INSIGHTS

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Background

The dataset contains two table which is facts and cities. Facts table contains all the information about Countries and Cities table contains information regarding cities of their respective countries.





Overview of Countries table

read_q('' SELECT *
FROM facts
''')

	id	code	name	area	area_land	area_water	population	population_growth	birth_rate	death_rate	migration_rate
0	1	af	Afghanistan	652230.0	652230.0	0.0	3.256434e+07	2.32	38.57	13.89	1.51
1	2	al	Albania	28748.0	27398.0	1350.0	3.029278e+06	0.30	12.92	6.58	3.30
2	3	ag	Algeria	2381741.0	2381741.0	0.0	3.954217e+07	1.84	23.67	4.31	0.92
3	4	an	Andorra	468.0	468.0	0.0	8.558000e+04	0.12	8.13	6.96	0.00
4	5	ao	Angola	1246700.0	1246700.0	0.0	1.962535e+07	2.78	38.78	11.49	0.46
...
256	257	zh	Atlantic Ocean	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
257	258	xo	Indian Ocean	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
258	259	zn	Pacific Ocean	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
259	260	oo	Southern Ocean	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
260	261	xx	World	NaN	NaN	NaN	7.256490e+09	1.08	18.60	7.80	NaN

261 rows × 11 columns



Overview of Cities table

```
read_q('''
    SELECT *
    FROM cities
'''')
```

	id	name	population	capital	facts_id
0	1	Oranjestad	37000	1	216
1	2	Saint John'S	27000	1	6
2	3	Abu Dhabi	942000	1	184
3	4	Dubai	1978000	0	184
4	5	Sharjah	983000	0	184
...
392	393	Mbabane	66000	1	167
393	394	Sanaa	2419000	1	193
394	395	Aden	784000	0	193
395	396	Lusaka	1802000	1	194
396	397	Harare	1542000	1	195

397 rows × 5 columns



Find Pakistan in the countries table

```
: read_q(''' SELECT *
    FROM facts
    WHERE name = "Pakistan"
''')
```

	id	code	name	area	area_land	area_water	population	population_growth	birth_rate	death_rate	migration_rate
0	132	pk	Pakistan	796095	770875	25220	199085847	1.46	22.58	6.49	1.54



Find the cities of Pakistan in the cities table

```
read_q(''' SELECT *
            FROM cities
            WHERE facts_id = "132"
        ''')
```

	id	name	population	capital	facts_id
0	273	Karachi	13876000	0	132
1	274	Lahore	7566000	0	132
2	275	Faisalabad	3038000	0	132
3	276	Rawalpindi	2164000	0	132
4	277	Multan	1775000	0	132
5	278	Islamabad	919000	1	132

Find the countries with their respective cities by using SQL Joins.

```
read_q(''' SELECT f.name AS Country, c.name AS City  
      FROM facts f INNER JOIN  
      cities c ON  
      f.id = c.facts_id  
      LIMIT 6  
''')
```

	Country	City
0	Aruba	Oranjestad
1	Antigua and Barbuda	Saint John'S
2	United Arab Emirates	Abu Dhabi
3	United Arab Emirates	Dubai
4	United Arab Emirates	Sharjah
5	Afghanistan	Kabul

Find the capital of every country by using SQL Joins.

```
read_q(''' SELECT f.name Country, c.name City  
      FROM facts f INNER JOIN  
      cities c on  
      f.id = c.facts_id  
     Where capital = 1  
    ORDER BY Country  
  
''' )
```

	Country	City
0	Afghanistan	Kabul
1	Albania	Tirana
2	Algeria	Algiers
3	American Samoa	Pago Pago
4	Andorra	Andorra La Vella
...
203	Virgin Islands	Charlotte Amalie
204	Wallis and Futuna	Mata-Utu
205	Yemen	Sanaa
206	Zambia	Lusaka
207	Zimbabwe	Harare



Show the country, cities, and its population where population is greater than 10M.

```
read_q(''' SELECT f.name Country, c.name City, c.population Population
    FROM facts f Inner Join
    cities c ON
    f.id = c.facts_id
    WHERE c.population > 10000000
    ORDER BY City
''' )
```

	Country	City	Population
0	China	Beijing	15594000
1	Argentina	Buenos Aires	13528000
2	Egypt	Cairo	11169000
3	Bangladesh	Dhaka	15391000
4	China	Guangzhou	10849000
5	Turkey	Istanbul	11253000
6	Pakistan	Karachi	13876000
7	India	Kolkata	14402000
8	Nigeria	Lagos	11223000
9	United States	Los Angeles-Long Beach-Santa Ana	13395000
10	Philippines	Manila	11862000
11	France	Marseille-Aix-en-Provence	14890100
12	Mexico	Mexico City	20446000
13	Russia	Moscow	11621000
14	India	Mumbai	19744000
15	India	New Delhi	22654000
16	United States	New York-Newark	20352000
17	Japan	Osaka-Kobe	11494000
18	Brazil	Sao Paulo	19924000
19	China	Shanghai	20208000

Show country, its total population, and the total population of urban areas.

```
read_q('''
SELECT f.name AS Country, f.population AS Total_Population, SUM(c.population) AS Urban_Population
FROM facts f INNER JOIN cities c
ON f.id = c.facts_id
GROUP BY f.name
ORDER BY Urban_Population DESC
'''')
```

	Country	Total_Population	Urban_Population
0	India	1251695584	82035000
1	China	1367485388	66849000
2	United States	321368864	60116000
3	Japan	126919659	60077000
4	Brazil	204259812	38086000
...
205	Falkland Islands (Islas Malvinas)	3361	2000
206	Anguilla	16418	2000
207	Wallis and Futuna	15613	1000
208	Saint Helena, Ascension, and Tristan da Cunha	7795	1000
209	Palau	21265	1000

210 rows × 3 columns



Find the percentage of Urban areas.

```
read_q('''
SELECT f.name AS Country, f.population AS Total_Population, SUM(c.population) AS Urban_Population,
ROUND(SUM(c.population)/CAST(f.population AS FLOAT) * 100,2) AS Urban_Percentage
FROM facts f INNER JOIN cities c
ON f.id = c.facts_id
GROUP BY f.name
ORDER BY Urban_Population DESC
'''')
```

	Country	Total_Population	Urban_Population	Urban_Percentage
0	India	1251695584	82035000	6.55
1	China	1367485388	66849000	4.89
2	United States	321368864	60116000	18.71
3	Japan	126919659	60077000	47.33
4	Brazil	204259812	38086000	18.65
...
205	Falkland Islands (Islas Malvinas)	3361	2000	59.51
206	Anguilla	16418	2000	12.18
207	Wallis and Futuna	15613	1000	6.40
208	Saint Helena, Ascension, and Tristan da Cunha	7795	1000	12.83
209	Palau	21265	1000	4.70

210 rows × 4 columns



**Thank you
very much!**