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## GEOG 574 - Lab 2: PostgreSQL Tutorial II: Command Line

1.

```
For more information, type "\?" (for internal commands) or "\help" (for SQL
commands) from within psql, or consult the psql section in the PostgreSQL
documentation.

Report bugs to <pgsql-bugs@postgresql.org>.

c:\lab2>createdb -U postgres testdb

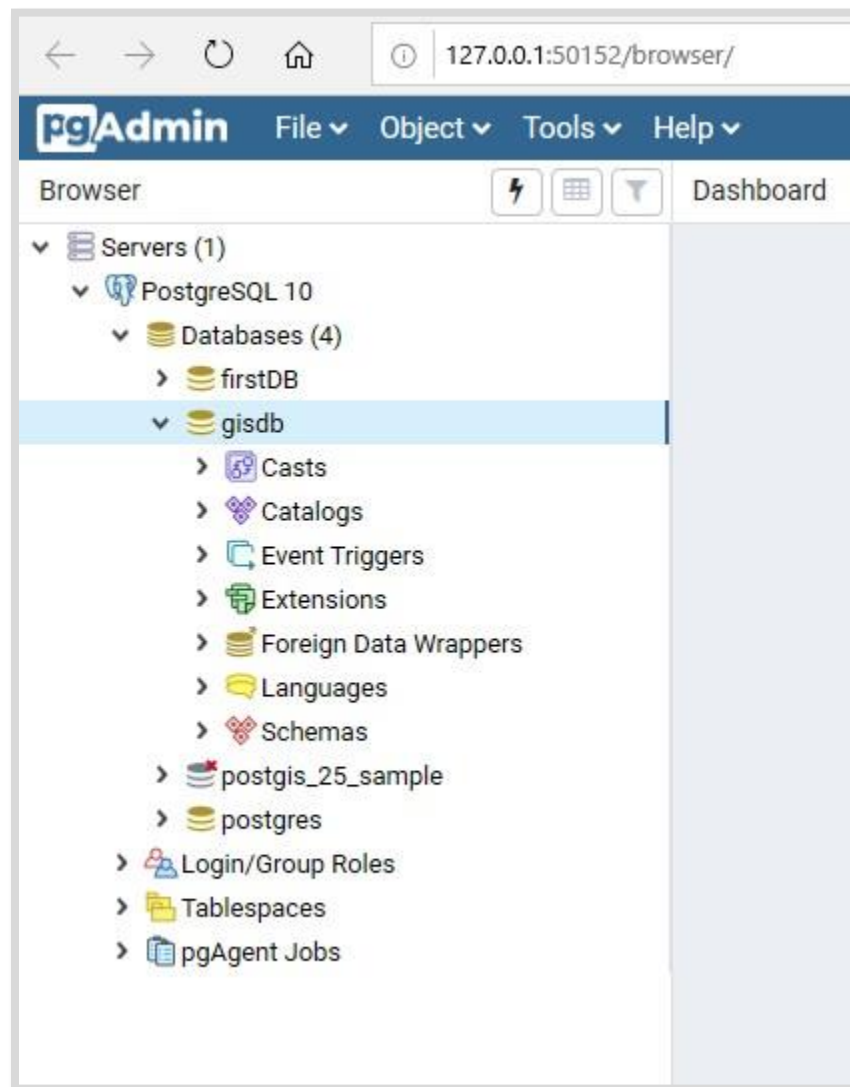
c:\lab2>dropdb -U postgres testdb
dropdb: database removal failed: ERROR:  database "testdb" is being accessed by other users
DETAIL:  There is 1 other session using the database.

c:\lab2>dropdb -U postgres testdb

c:\lab2>creatdb -U postgres gisdb
'creatdb' is not recognized as an internal or external command,
operable program or batch file.

c:\lab2>createdb -U postgres gisdb

c:\lab2>
```



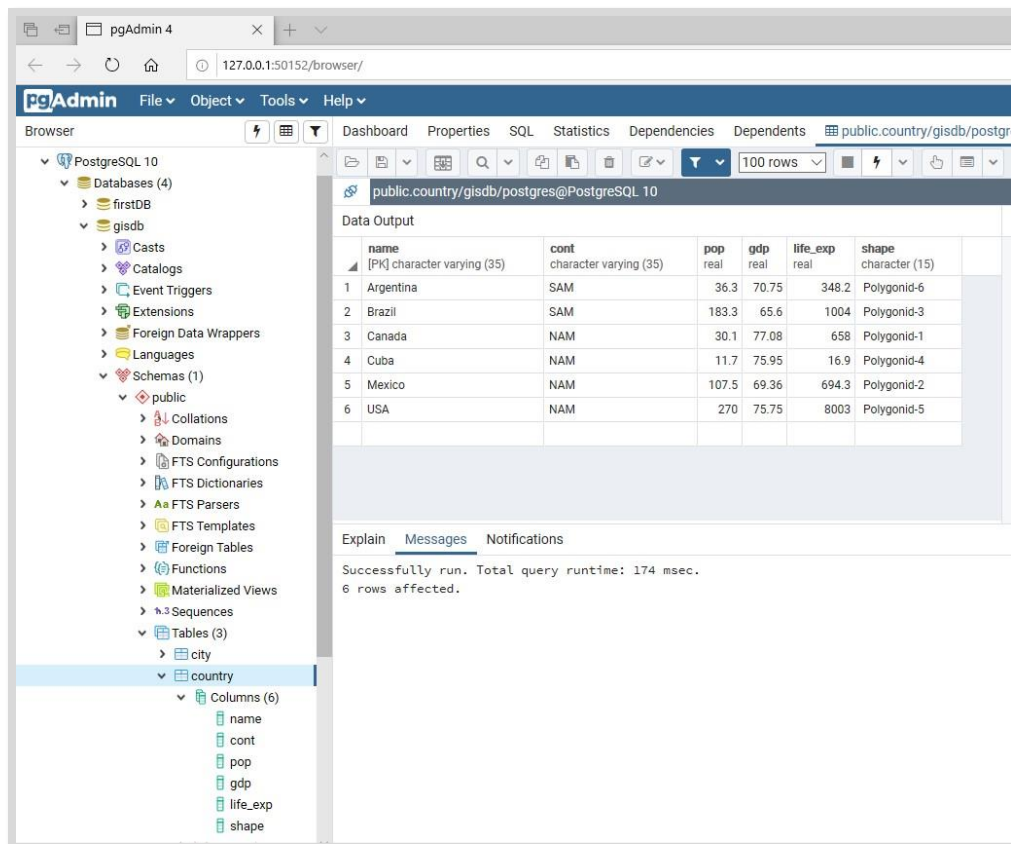
2. The type of schema that is represented is conceptual. This schema is considered conceptual because it defines or describes the data types attributes (name, country, pop..), related data types (integer, real, char..), constraints, and relationship.

3. CREATE TABLE city(  
name varchar(35),  
country varchar(35),  
pop real,  
capital char(1),  
shape char(15),  
primary key (name)  
);

```
gisdb=# CREATE TABLE city(  
gisdb(#      name          varchar(35),  
gisdb(#      country       varchar(35),  
gisdb(#      pop           real,  
gisdb(#      capital       char(1),  
gisdb(#      shape         char(15),  
gisdb(#      primary key (name)  
gisdb(# );  
CREATE TABLE  
gisdb=# \dt  
List of relations  
Schema | Name   | Type | Owner  
-----+-----+-----+-----  
public | city   | table | postgres  
public | country | table | postgres  
public | river  | table | postgres  
(3 rows)
```

4. Copy command:

gisdb=# copy country (name, cont, pop, life\_exp, gdp, shape) from  
'c:\lab2\lab2task4.txt' WITH DELIMITER AS ',' CSV QUOTE AS ''';



The screenshot shows the pgAdmin 4 interface. On the left, the 'country' table is selected under the 'gisdb' schema. The main pane displays the 'Data Output' for the 'country' table, showing 6 rows of data. The columns are: name, cont, pop, gdp, life\_exp, and shape. The data is as follows:

	name	cont	pop	gdp	life_exp	shape
1	Argentina	SAM	36.3	70.75	348.2	Polygonid-6
2	Brazil	SAM	183.3	65.6	1004	Polygonid-3
3	Canada	NAM	30.1	77.08	658	Polygonid-1
4	Cuba	NAM	11.7	75.95	16.9	Polygonid-4
5	Mexico	NAM	107.5	69.36	694.3	Polygonid-2
6	USA	NAM	270	75.75	8003	Polygonid-5

Below the data output, the 'Messages' tab shows the following message: 'Successfully run. Total query runtime: 174 msec. 6 rows affected.'

5. Delete command:  
delete from country where name= 'Mexico';

```
gisdb=# copy country (name, cont, pop, life_exp, gdp, shape) from 'c:\lab2\lab2task4.txt' WITH DELIMITER
AS ',' CSV QUOTE AS '""';
COPY 6
gisdb=# delete from country where name= 'Mexico';
DELETE 1
gisdb=#
```

6. SQL command statement:  
select name, country from city;

```
gisdb=# select name, country from city;
   name      | country
-----+-----
Havana       | Cuba
Washington D.C. | USA
Monterrey    | Mexico
Toronto      | Canada
Brasilia     | Brazil
Rosario      | Argentina
Ottawa       | Canada
Mexico City  | Mexico
Buenos Aires | Argentina
(9 rows)
```

7. SQL command statements:  
\i c:/lab2/load-river.sql  
select name, origin from river;

```
gisdb=# \i c:/lab2/load-river.sql
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
gisdb=# select name, origin from river;
   name      | origin
-----+-----
Rio Parana   | Brazil
St. Lawrence | USA
Rio Grande   | USA
Mississippi  | USA
(4 rows)
```

- ```
psql -U postgres -f load-country.sql gisdb
```

The screenshot shows the pgAdmin 4 web interface. The left sidebar displays the database structure: PostgreSQL 10 > Databases (4) > gisdb > Schemas (1) > public > country. The main panel shows a SQL query: `SELECT * FROM public.country.gisdb.postgres@PostgreSQL 10`. Below the query, the 'Data Output' tab is active, displaying a table with 6 rows and 7 columns: name, cont, pop, gdp, life\_exp, and shape. The table contains data for Argentina, Brazil, Canada, Cuba, Mexico, and USA. At the bottom, the 'Messages' tab shows a success message: 'Successfully run. Total query runtime: 325 msec. 6 rows affected.'

|   | name<br>[PK] character varying (35) | cont<br>character varying (35) | pop<br>real | gdp<br>real | life_exp<br>real | shape<br>character (15) |
|---|-------------------------------------|--------------------------------|-------------|-------------|------------------|-------------------------|
| 1 | Argentina                           | SAM                            | 36.3        | 348.2       | 70.75            | Polygonid-6             |
| 2 | Brazil                              | SAM                            | 183.3       | 1004        | 65.6             | Polygonid-3             |
| 3 | Canada                              | NAM                            | 30.1        | 658         | 77.08            | Polygonid-1             |
| 4 | Cuba                                | NAM                            | 11.7        | 16.9        | 75.95            | Polygonid-4             |
| 5 | Mexico                              | NAM                            | 107.5       | 694.3       | 69.36            | Polygonid-2             |
| 6 | USA                                 | NAM                            | 270         | 8003        | 75.75            | Polygonid-5             |

Successfully run. Total query runtime: 325 msec.  
6 rows affected.