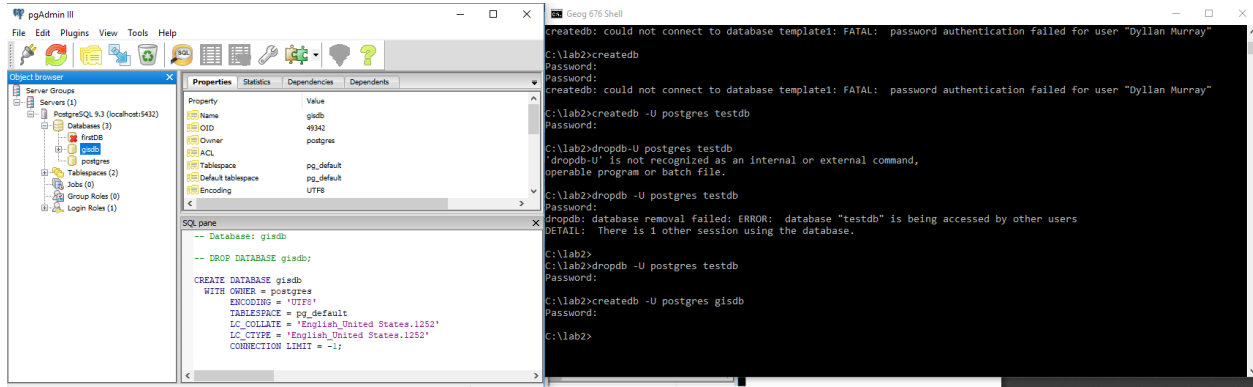


Question 1



Question 2:

The data is in the logical design phase and there has a logical schema.

Question 3:

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

Question 4:

```
copy country(name,
cont,
pop,
life_exp,
gdp,
shape)
from
'c:\lab2\country.txt' WITH DELIMITER AS ',' CSV QUOTE AS ''';
```

The screenshot shows two windows. The left window is pgAdmin III, displaying the 'country' table data. The right window is a command prompt with the following text:

```
gisdb=# from
gisdb=# 'c:\lab2\country.txt' WITH DELIMITER AS ',' CSV QUOTE AS ''';
ERROR: duplicate key value violates unique constraint "country_pkey"
DETAIL: Key (name)=(Canada) already exists.
CONTEXT: COPY country, line 1
gisdb=# copy country(name,
gisdb=# cont,
gisdb=# pop,
gisdb=# life_exp,
gisdb=# gdp,
gisdb=# shape)
gisdb=# from
gisdb=# 'c:\lab2\country.txt' WITH DELIMITER AS ',' CSV QUOTE AS ''';
COPY 5
```

	name	cont	pop	gdp	life_exp	shape
	[PK] character	character vary	real	real	real	character(15)
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	658	77.08	Polygonid
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

Question 5

```
delete from country where name='Mexico';
```

Edit Data - PostgreSQL 9.3 (localhost:5432) - gisdb - country

File Edit View Tools Help

	name [PK] character	cont character vary	pop real	gdp real	life_exp real	shape character(15)
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	658	77.08	Polygonid
4	Cuba	NAM	11.7	75.95	16.9	Polygonid-4
5	USA	NAM	270	75.75	8003	Polygonid-5
*						

```
gisdb=# shape)
gisdb=# from
gisdb=# 'c:\lab2\country.txt' WITH DELIMITER AS ',' CSV QUOTE AS ''';
COPY 1
gisdb=#
gisdb=# delete from country where name='Mexico';
DELETE 1
gisdb=#
```

Question 6

```
select name, country from city;
```

```
gisdb=# select name, country from city
gisdb=# ;
```

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)

Question 7

```
select name, origin from river;
```

```
gisdb=# \i c:/lab2/load-river.sql
psql:c:/lab2/load-river.sql:1: ERROR:  duplicate key value violates unique constraint "river_pkey"
DETAIL:  Key (name)=(Rio Parana) already exists.
INSERT 0 1
INSERT 0 1
INSERT 0 1
gisdb=# select name, country from river;
ERROR:  column "country" does not exist
LINE 1: select name, country from river;
                  ^
gisdb=# select name, origin from river;
 name      | origin
-----+-----
 Rio Parana | Brazil
 St. Lawrence | USA
 Rio Grande | USA
 Mississippi | USA
(4 rows)
```

Question 8

PostgreSQL returns an error because there are duplicates of the primary key constraint, which was specified in the DDL. Because the value of the primary key attribute should be unique for

each row, PostgreSQL returns an error when attempting to load in data with the same primary key.

Delete from country;

```
gisdb=# delete from country;
DELETE 6
gisdb=# \q

C:\lab2>psql -U postgres -f load-country.sql gisdb
Password for user postgres:
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
C:\lab2>
```