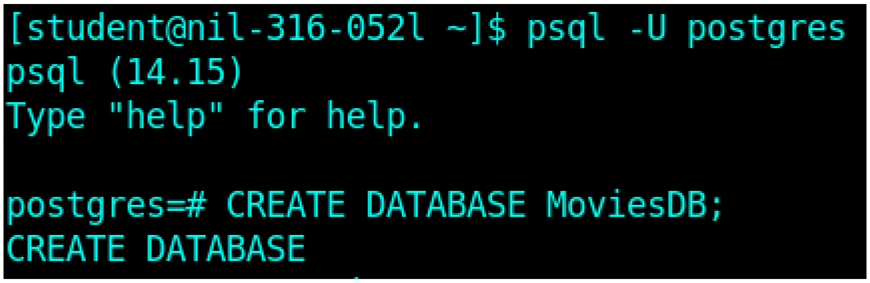
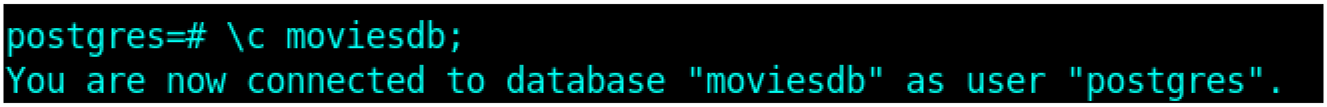
142301013_Kakaraparty Srirama Srikar_Assignment 1

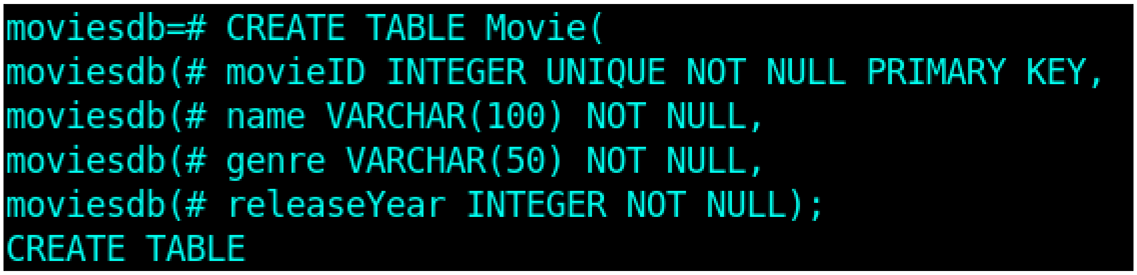
Question 1



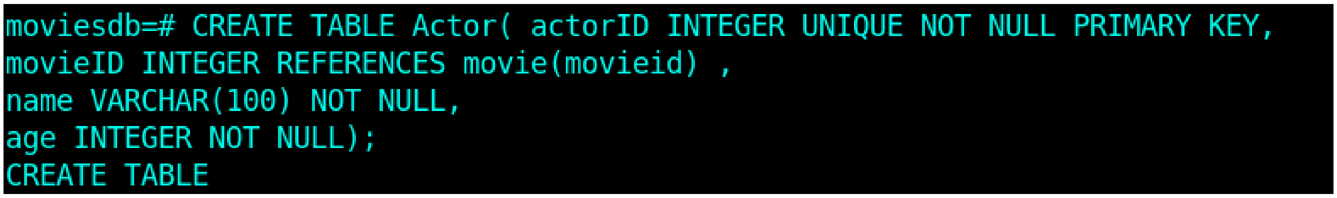
```
[student@nil-316-052l ~]$ psql -U postgres
psql (14.15)
Type "help" for help.

postgres=# CREATE DATABASE MoviesDB;
CREATE DATABASE
```



```
postgres=# \c moviesdb;
You are now connected to database "moviesdb" as user "postgres".
```

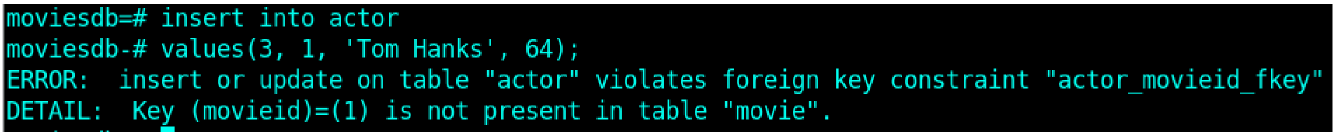


```
moviesdb=# CREATE TABLE Movie(
moviesdb(# movieID INTEGER UNIQUE NOT NULL PRIMARY KEY,
moviesdb(# name VARCHAR(100) NOT NULL,
moviesdb(# genre VARCHAR(50) NOT NULL,
moviesdb(# releaseYear INTEGER NOT NULL);
CREATE TABLE
```

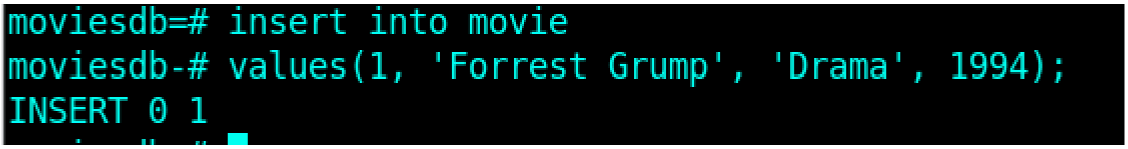


```
moviesdb=# CREATE TABLE Actor( actorID INTEGER UNIQUE NOT NULL PRIMARY KEY,
movieID INTEGER REFERENCES movie(movieid) ,
name VARCHAR(100) NOT NULL,
age INTEGER NOT NULL);
CREATE TABLE
```

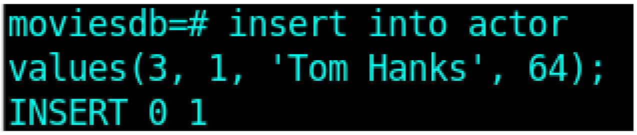
Question 2



```
moviesdb=# insert into actor
moviesdb-# values(3, 1, 'Tom Hanks', 64);
ERROR:  insert or update on table "actor" violates foreign key constraint "actor_movieid_fkey"
DETAIL:  Key (movieid)=(1) is not present in table "movie".
```



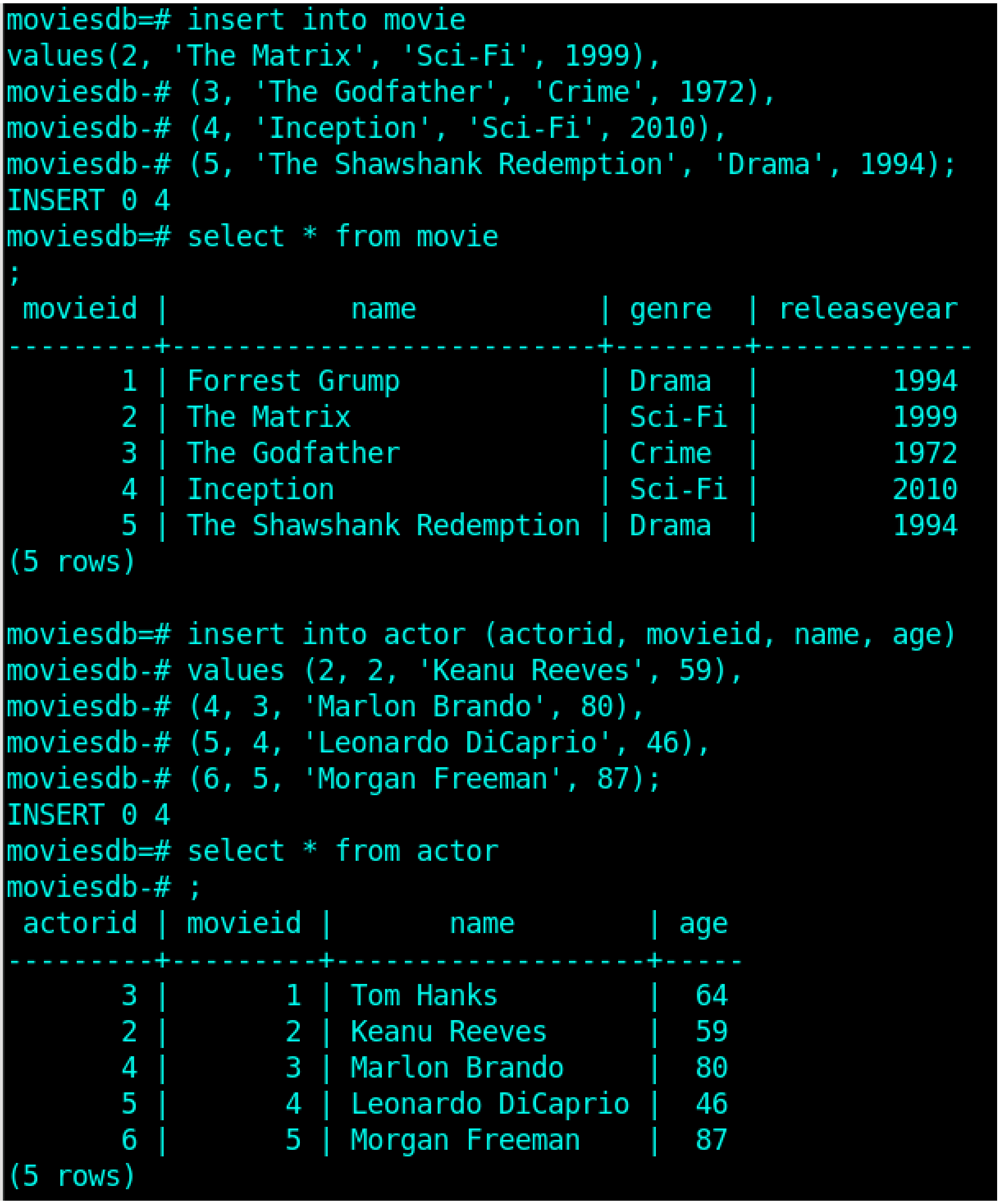
```
moviesdb=# insert into movie
moviesdb-# values(1, 'Forrest Grump', 'Drama', 1994);
INSERT 0 1
```



```
moviesdb=# insert into actor
values(3, 1, 'Tom Hanks', 64);
INSERT 0 1
```

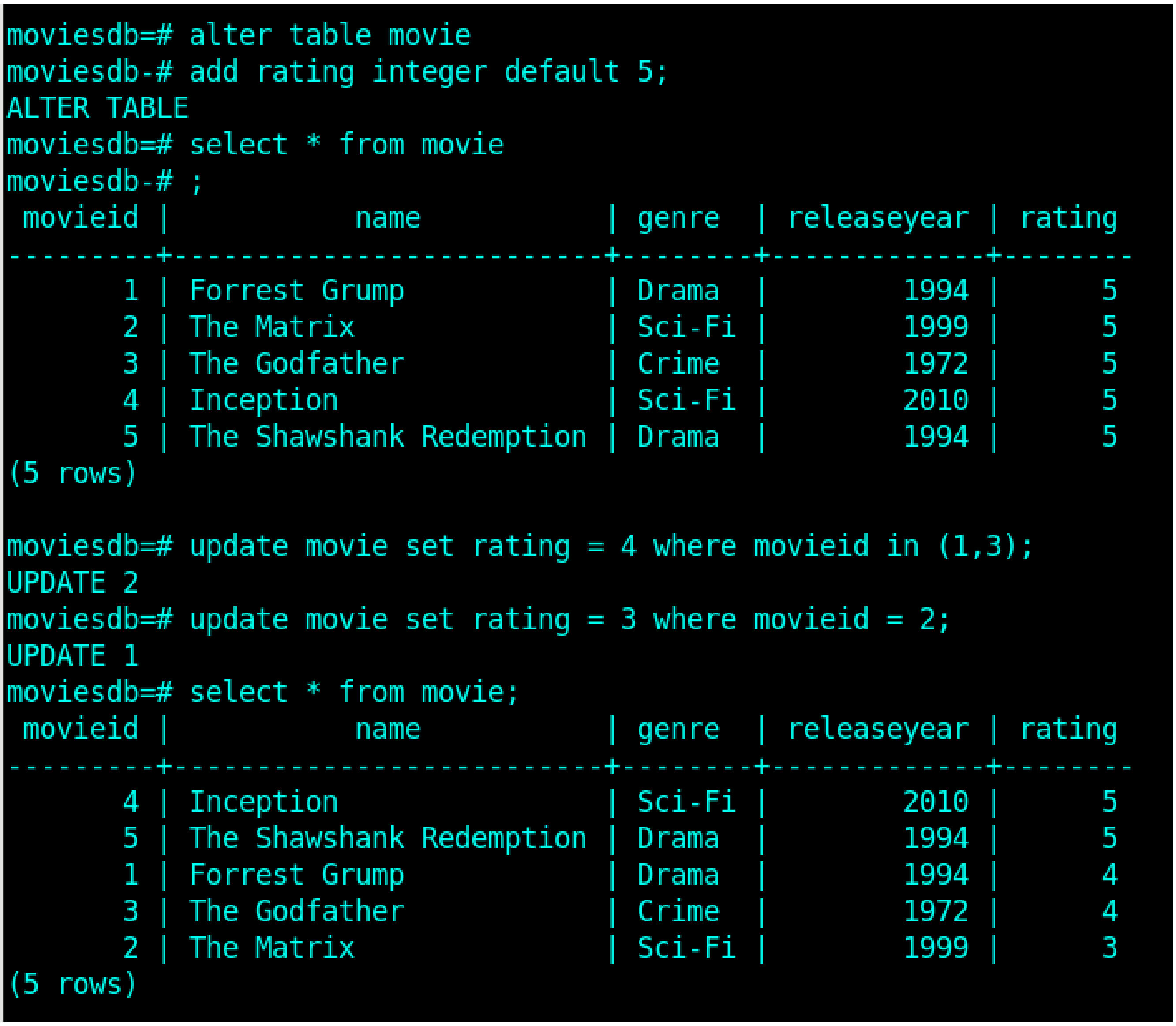
We need to first insert the values into the movie and then into the actor, as the actor has a foreign key constraint with movie id. Only after we insert the movie, will we be able to insert the actor.

Question 3



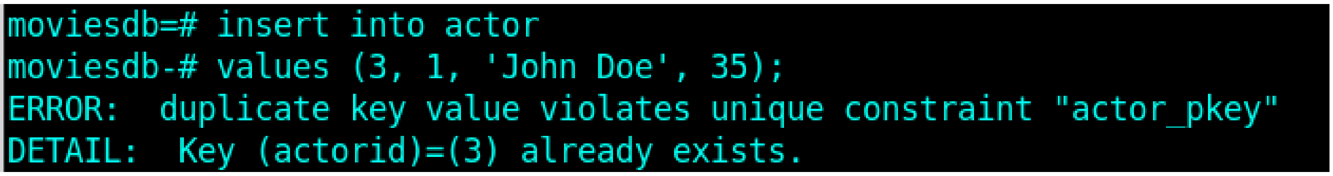
```
moviesdb=# insert into movie
values(2, 'The Matrix', 'Sci-Fi', 1999),
moviesdb-# (3, 'The Godfather', 'Crime', 1972),
moviesdb-# (4, 'Inception', 'Sci-Fi', 2010),
moviesdb-# (5, 'The Shawshank Redemption', 'Drama', 1994);
INSERT 0 4
moviesdb=# select * from movie
;
 movieid |           name           | genre  | releaseyear
---------+--------------------------+--------+-------------
       1 | Forrest Grump            | Drama  |        1994
       2 | The Matrix               | Sci-Fi |        1999
       3 | The Godfather            | Crime  |        1972
       4 | Inception                | Sci-Fi |        2010
       5 | The Shawshank Redemption | Drama  |        1994
(5 rows)

moviesdb=# insert into actor (actorid, movieid, name, age)
moviesdb-# values (2, 2, 'Keanu Reeves', 59),
moviesdb-# (4, 3, 'Marlon Brando', 80),
moviesdb-# (5, 4, 'Leonardo DiCaprio', 46),
moviesdb-# (6, 5, 'Morgan Freeman', 87);
INSERT 0 4
moviesdb=# select * from actor
moviesdb-# ;
 actorid | movieid |       name        | age
---------+---------+-------------------+-----
       3 |       1 | Tom Hanks         |  64
       2 |       2 | Keanu Reeves      |  59
       4 |       3 | Marlon Brando     |  80
       5 |       4 | Leonardo DiCaprio |  46
       6 |       5 | Morgan Freeman    |  87
(5 rows)
```

Question 4



```
moviesdb=# alter table movie
moviesdb-# add rating integer default 5;
ALTER TABLE
moviesdb=# select * from movie
moviesdb-# ;
 movieid |           name           | genre  | releaseyear | rating
---------+--------------------------+--------+-------------+--------
       1 | Forrest Grump            | Drama  |        1994 |      5
       2 | The Matrix               | Sci-Fi |        1999 |      5
       3 | The Godfather            | Crime  |        1972 |      5
       4 | Inception                | Sci-Fi |        2010 |      5
       5 | The Shawshank Redemption | Drama  |        1994 |      5
(5 rows)

moviesdb=# update movie set rating = 4 where movieid in (1,3);
UPDATE 2
moviesdb=# update movie set rating = 3 where movieid = 2;
UPDATE 1
moviesdb=# select * from movie;
 movieid |           name           | genre  | releaseyear | rating
---------+--------------------------+--------+-------------+--------
       4 | Inception                | Sci-Fi |        2010 |      5
       5 | The Shawshank Redemption | Drama  |        1994 |      5
       1 | Forrest Grump            | Drama  |        1994 |      4
       3 | The Godfather            | Crime  |        1972 |      4
       2 | The Matrix               | Sci-Fi |        1999 |      3
(5 rows)
```

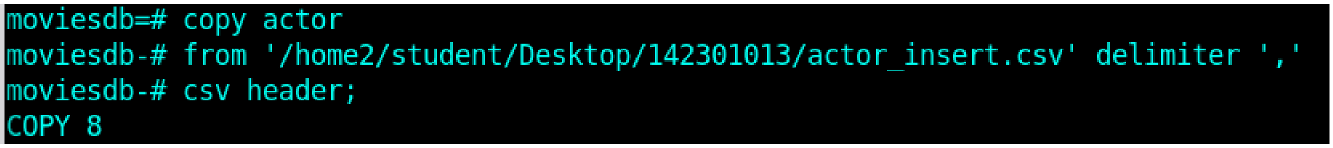
Question 5



```
moviesdb=# insert into actor
moviesdb-# values (3, 1, 'John Doe', 35);
ERROR:  duplicate key value violates unique constraint "actor_pkey"
DETAIL:  Key (actorid)=(3) already exists.
```

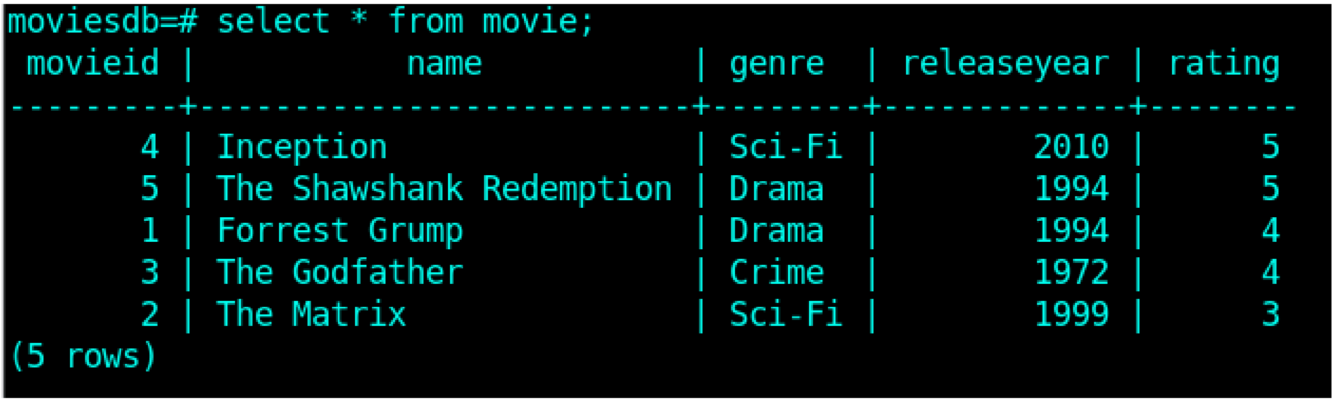
When we try to insert the actor John Doe we get an error this is because he has the same ActorID as that of Tom Hanks and the column ActorID is set to have unique values, thus we get an error and we won’t be able to insert.

Question 6



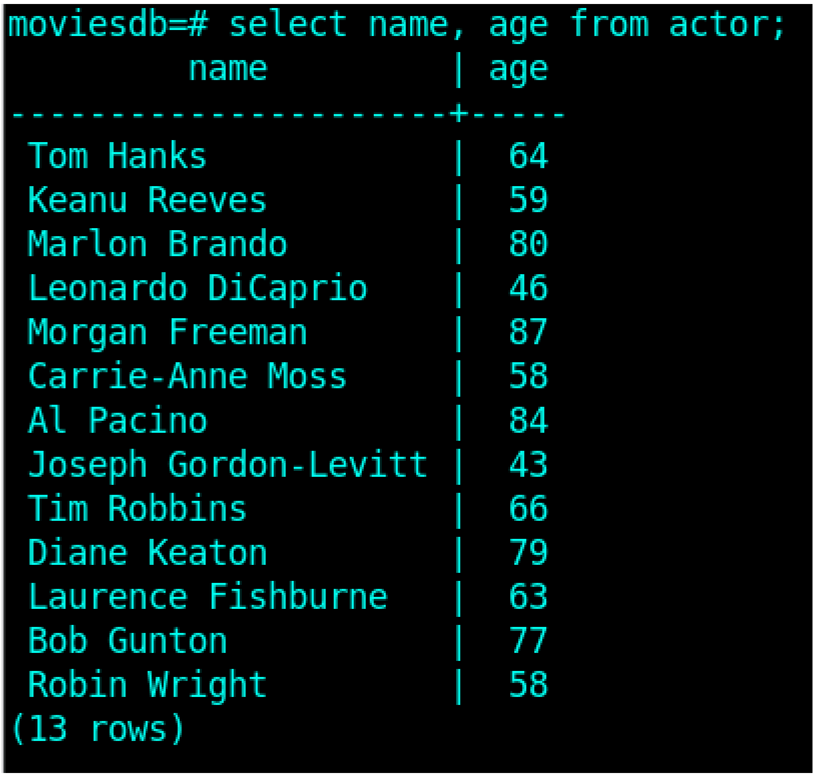
```
moviesdb=# copy actor
moviesdb-# from '/home2/student/Desktop/142301013/actor_insert.csv' delimiter ','
moviesdb-# csv header;
COPY 8
```

Question 7



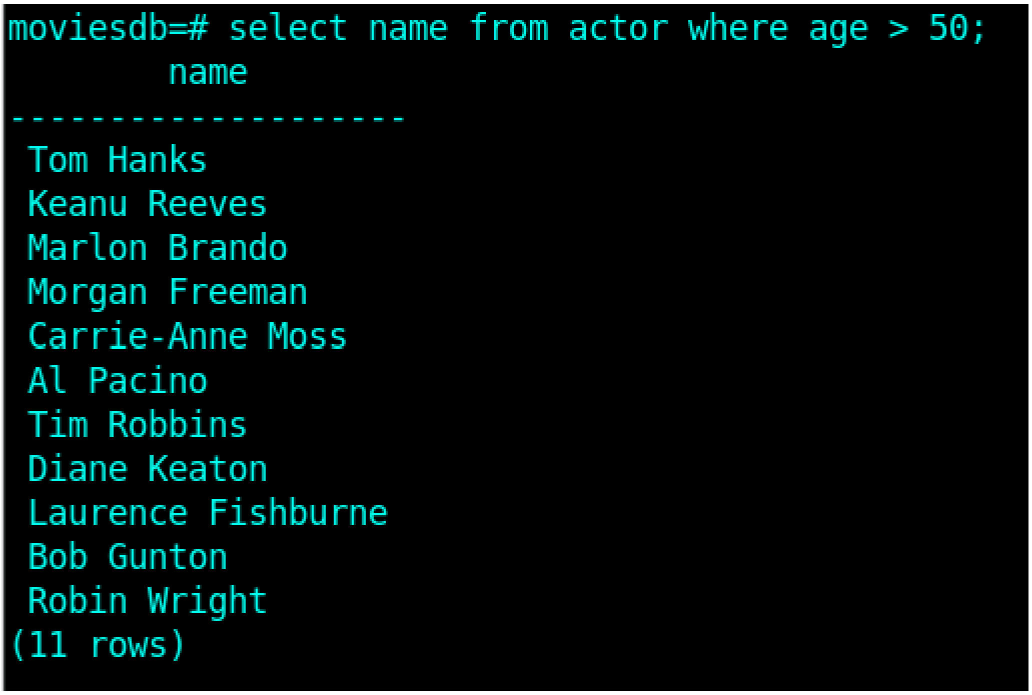
```
moviesdb=# select * from movie;
 movieid |           name           | genre  | releaseyear | rating
---------+--------------------------+--------+-------------+--------
       4 | Inception                | Sci-Fi |        2010 |      5
       5 | The Shawshank Redemption | Drama  |        1994 |      5
       1 | Forrest Grump            | Drama  |        1994 |      4
       3 | The Godfather            | Crime  |        1972 |      4
       2 | The Matrix               | Sci-Fi |        1999 |      3
(5 rows)
```

Question 8



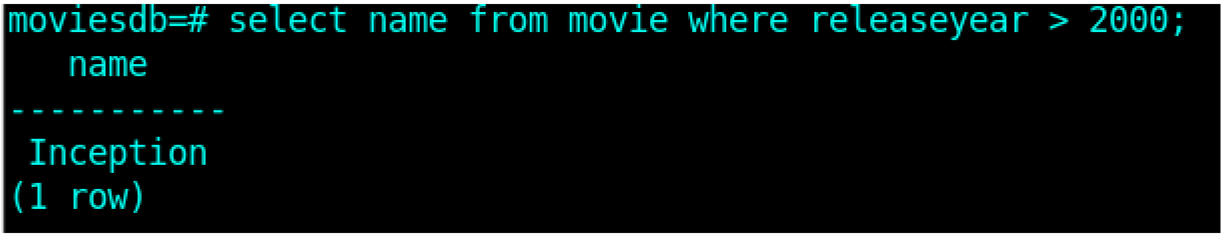
```
moviesdb=# select name, age from actor;
         name         | age
----------------------+-----
 Tom Hanks            |  64
 Keanu Reeves         |  59
 Marlon Brando        |  80
 Leonardo DiCaprio    |  46
 Morgan Freeman       |  87
 Carrie-Anne Moss     |  58
 Al Pacino            |  84
 Joseph Gordon-Levitt |  43
 Tim Robbins          |  66
 Diane Keaton         |  79
 Laurence Fishburne   |  63
 Bob Gunton           |  77
 Robin Wright         |  58
(13 rows)
```

Question 9



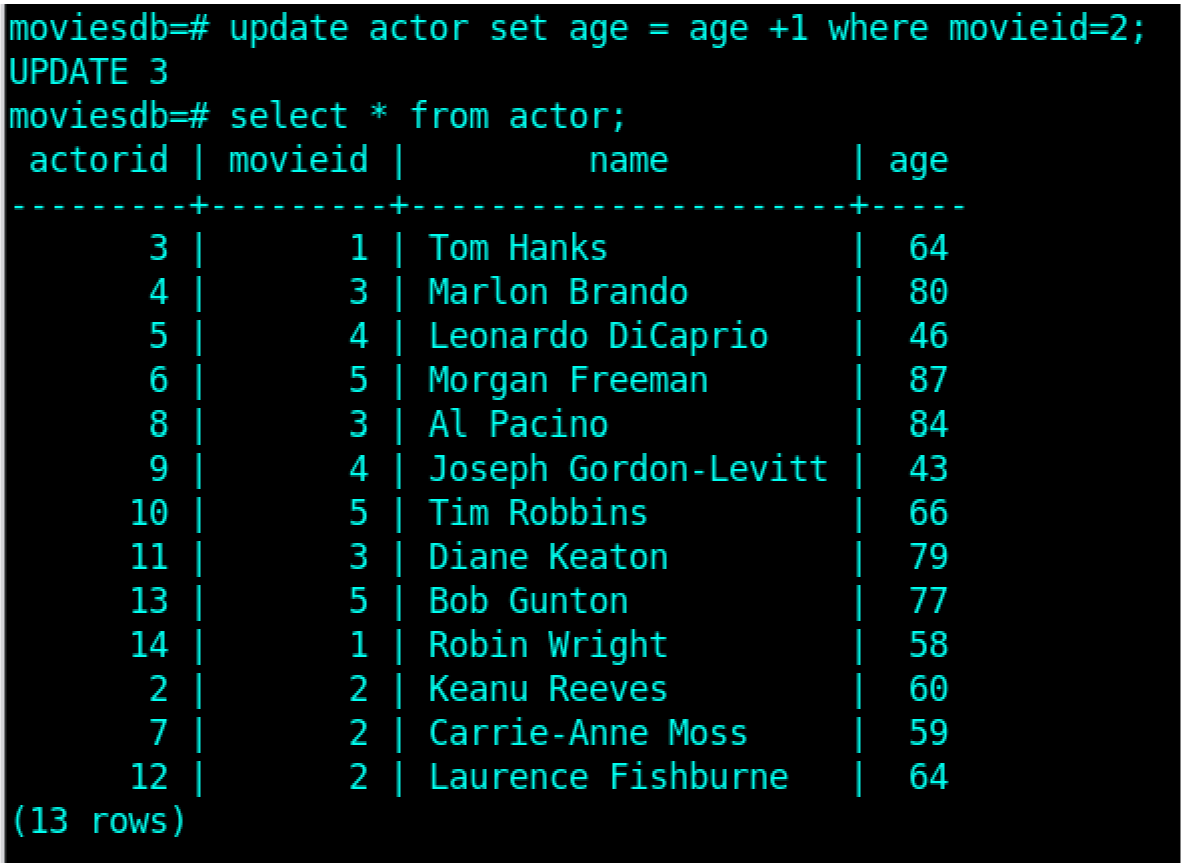
```
moviesdb=# select name from actor where age > 50;
        name
--------------------
 Tom Hanks
 Keanu Reeves
 Marlon Brando
 Morgan Freeman
 Carrie-Anne Moss
 Al Pacino
 Tim Robbins
 Diane Keaton
 Laurence Fishburne
 Bob Gunton
 Robin Wright
(11 rows)
```

Question 10



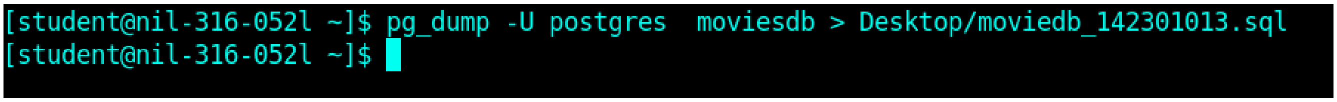
```
moviesdb=# select name from movie where releaseyear > 2000;
   name
-----------
 Inception
(1 row)
```

Question 11



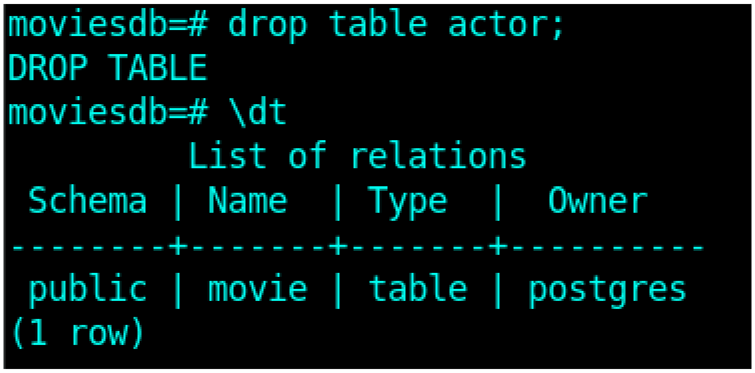
```
moviesdb=# update actor set age = age +1 where movieid=2;
UPDATE 3
moviesdb=# select * from actor;
 actorid | movieid |         name          | age
---------+---------+-----------------------+-----
       3 |       1 | Tom Hanks             |  64
       4 |       3 | Marlon Brando         |  80
       5 |       4 | Leonardo DiCaprio     |  46
       6 |       5 | Morgan Freeman        |  87
       8 |       3 | Al Pacino             |  84
       9 |       4 | Joseph Gordon-Levitt  |  43
      10 |       5 | Tim Robbins           |  66
      11 |       3 | Diane Keaton          |  79
      13 |       5 | Bob Gunton            |  77
      14 |       1 | Robin Wright          |  58
       2 |       2 | Keanu Reeves          |  60
       7 |       2 | Carrie-Anne Moss      |  59
      12 |       2 | Laurence Fishburne    |  64
(13 rows)
```

Question 12



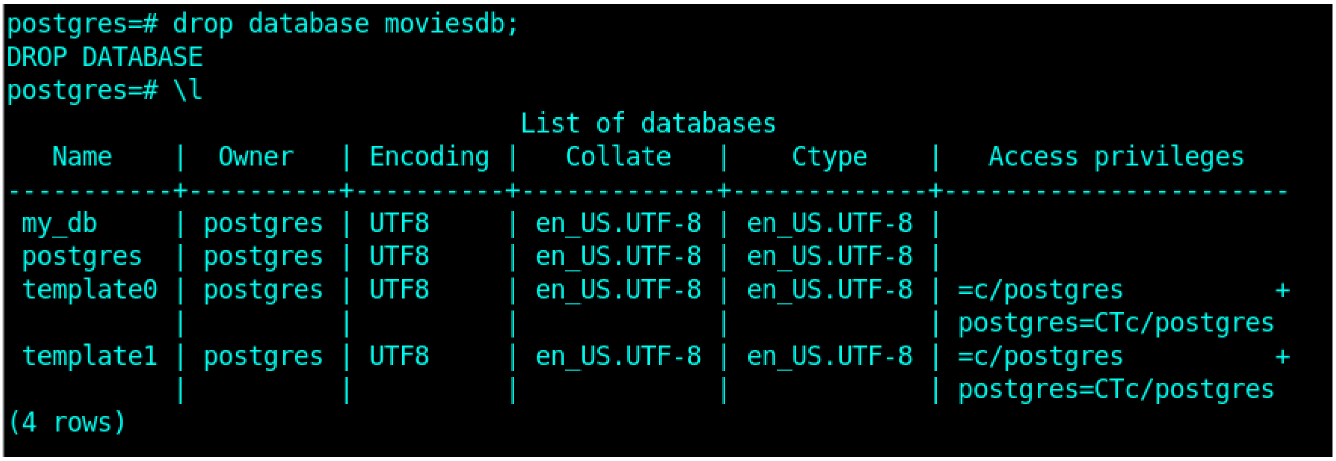
```
[student@nil-316-052l ~]$ pg_dump -U postgres  moviesdb > Desktop/moviedb_142301013.sql
[student@nil-316-052l ~]$ 
```

Question 13



```
moviesdb=# drop table actor;
DROP TABLE
moviesdb=# \dt
         List of relations
 Schema | Name  | Type  |  Owner
--------+-------+-------+----------
 public | movie | table | postgres
(1 row)
```

Question 14



```
postgres=# drop database moviesdb;
DROP DATABASE
postgres=# \l
                                  List of databases
   Name    |  Owner   | Encoding |   Collate   |    Ctype    |   Access privileges
-----------+----------+----------+-------------+-------------+-----------------------
 my_db     | postgres | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 postgres  | postgres | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 template0 | postgres | UTF8     | en_US.UTF-8 | en_US.UTF-8 | =c/postgres          +
           |          |          |             |             | postgres=CTc/postgres
 template1 | postgres | UTF8     | en_US.UTF-8 | en_US.UTF-8 | =c/postgres          +
           |          |          |             |             | postgres=CTc/postgres
(4 rows)
```