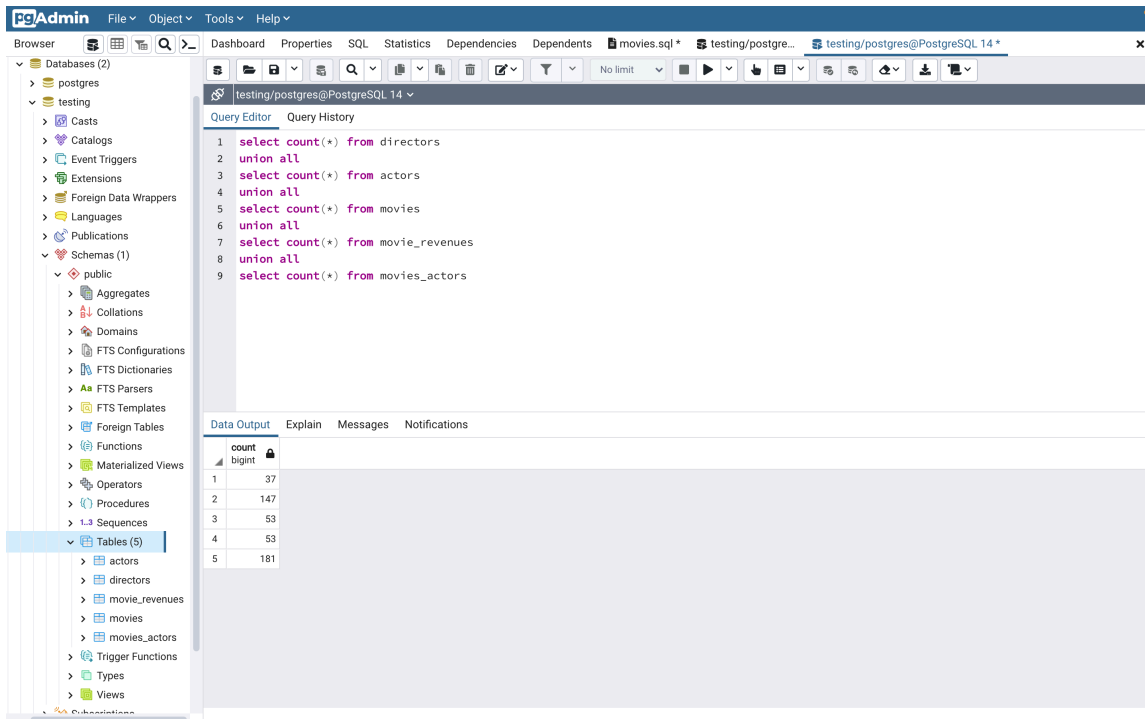


Part A. Run below query and show the result



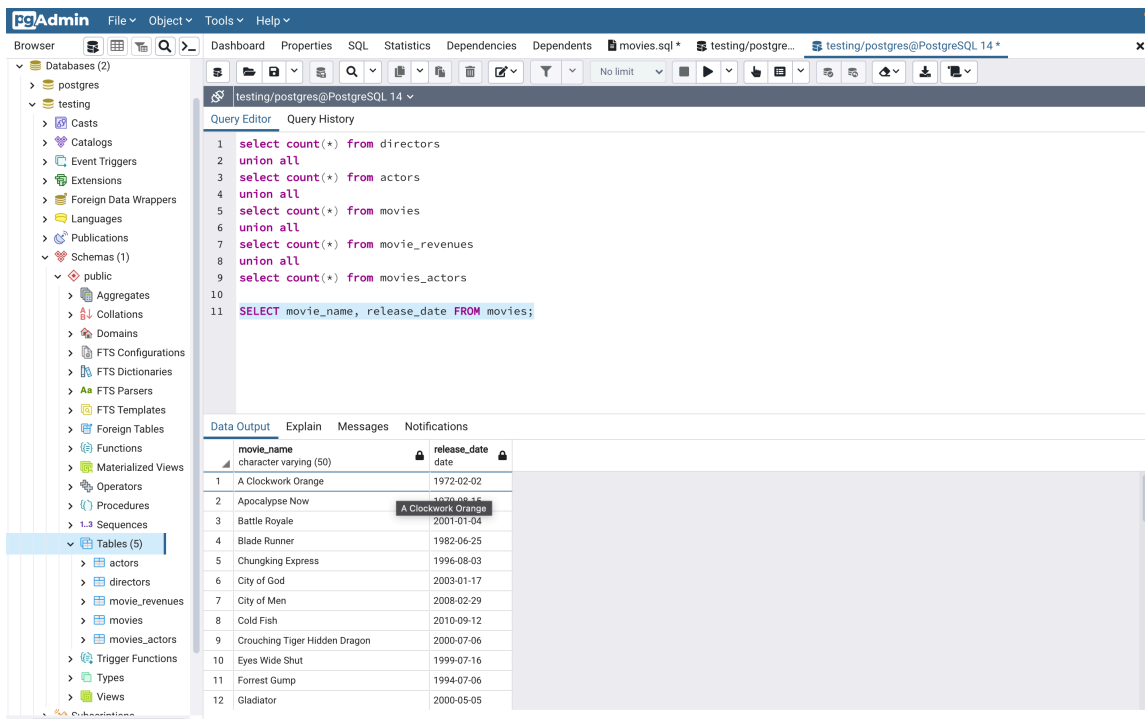
The screenshot shows the pgAdmin interface with a SQL query in the Query Editor. The query is a UNION ALL of five SELECT statements, each counting the number of rows in a specific table. The results are displayed in the Data Output tab.

```
1 select count(*) from directors
2 union all
3 select count(*) from actors
4 union all
5 select count(*) from movies
6 union all
7 select count(*) from movie_revenues
8 union all
9 select count(*) from movies_actors
```

	count	bigint
1	37	
2	147	
3	53	
4	53	
5	181	

Part B. Run below 4 queries and show the result

1.



The screenshot shows the pgAdmin interface with a SQL query in the Query Editor. The query is a UNION ALL of five SELECT statements, each counting the number of rows in a specific table. The results are displayed in the Data Output tab.

```
1 select count(*) from directors
2 union all
3 select count(*) from actors
4 union all
5 select count(*) from movies
6 union all
7 select count(*) from movie_revenues
8 union all
9 select count(*) from movies_actors
10
11 SELECT movie_name, release_date FROM movies;
```

movie_name	release_date
A Clockwork Orange	1972-02-02
Apocalypse Now	1979-09-15
Battle Royale	2001-01-04
Blade Runner	1982-06-25
Chungking Express	1996-08-03
City of God	2003-01-17
City of Men	2008-02-29
Cold Fish	2010-09-12
Crouching Tiger Hidden Dragon	2000-07-06
Eyes Wide Shut	1999-07-16
Forrest Gump	1994-07-06
Gladiator	2000-05-05

2.

The screenshot shows the pgAdmin interface with a SQL query executed in the Query Editor. The query is a UNION ALL of SELECT statements from various tables. The results are displayed in the Data Output tab.

```
1 select count(*) from directors
2 union all
3 select count(*) from actors
4 union all
5 select count(*) from movies
6 union all
7 select count(*) from movie_revenues
8 union all
9 select count(*) from movies_actors
10
11 SELECT movie_name, release_date FROM movies;
12 SELECT first_name, last_name from directors
13 WHERE nationality='American';
14
```

	first_name character varying (30)	last_name character varying (30)
1	Paul	Anderson
2	Wes	Anderson
3	James	Cameron
4	Victor	Fleming
5	Francis	Ford Coppola
6	Stanley	Kubrick
7	John	Lasseter
8	George	Lucas
9	Sam	Raimi
10	Mark	Romanek
11	Martin	Scorsese
12	Zack	Snyder

Successfully run. Total query runtime: 78 msec. 16 rows affected.

3.

The screenshot shows the pgAdmin interface with a SQL query executed in the Query Editor. The query is a UNION ALL of SELECT statements from various tables. The results are displayed in the Data Output tab.

```
1 select count(*) from directors
2 union all
3 select count(*) from actors
4 union all
5 select count(*) from movies
6 union all
7 select count(*) from movie_revenues
8 union all
9 select count(*) from movies_actors
10
11 SELECT movie_name, release_date FROM movies;
12 SELECT first_name, last_name from directors
13 WHERE nationality='American';
14 SELECT first_name, last_name, gender, date_of_birth FROM actors
15 WHERE gender='M' AND date_of_birth > '1970-1-1'
16
```

	first_name character varying (30)	last_name character varying (30)	gender character (1)	date_of_birth date
1	Adrien	Brody	M	1973-04-14
2	Chen	Chang	M	1976-10-14
3	Paddy	Considine	M	1973-09-05
4	Darian	Cunha	M	1988-07-26
5	Paul	Dano	M	1984-06-19
6	Leonardo	DiCaprio	M	1974-11-11
7	Hiroki	Doi	M	1999-08-10
8	Leandro	Firmino	M	1978-06-23
9	James	Franco	M	1978-04-19
10	Dillon	Freasier	M	1996-03-06
11	Tatsuya	Fujiwara	M	1982-05-15
12	Mason	Gamble	M	1986-01-16

Successfully run. Total query runtime: 62 msec. 31 rows affected.

4.

The screenshot shows the PgAdmin interface with a SQL query in the Query Editor. The query is a complex SELECT statement that joins data from several tables: movies, directors, movie_revenues, and movies_actors. It filters for American directors born after 1970 and English-language movies, then groups by movie name and filters for movies with a total length greater than 90 minutes.

```
4 union all
5 select count(*) from movies
6 union all
7 select count(*) from movie_revenues
8 union all
9 select count(*) from movies_actors
10
11 SELECT movie_name, release_date FROM movies;
12 SELECT first_name, last_name from directors
13 WHERE nationality='American';
14 SELECT first_name, last_name, gender, date_of_birth FROM actors
15 WHERE gender='M' AND date_of_birth > '1970-1-1'
16 SELECT movie_name, SUM (movie_length) FROM movies
17 WHERE (movie_lang) IN ('English')
18 GROUP BY movie_name
19 HAVING SUM (movie_length)>90
20
```

The Data Output tab shows the results of the query, displaying a table with two columns: movie_name and sum. The results list 12 movies and their corresponding sum values.

movie_name	sum
V for Vendetta	140
Star Wars: Return of the Jedi	139
Blade Runner	121
Raging Bull	132
Star Wars: Empire Strikes Back	150
Spider-Man 2	115
Grand Budapest Hotel	117
Rushmore	104
Life of Pi	129
Titanic	143
The Wizard of Oz	120
Watchmen	138

Part C. Run below 3 queries and show the result

1.

The screenshot shows the PgAdmin interface with a SQL query in the Query Editor. The query is a complex SELECT statement that joins data from several tables: movie_revenues, movies_actors, and movies. It filters for American directors born after 1970 and English-language movies, then groups by movie name and filters for movies with a total length greater than 90 minutes. The query also includes a WHERE clause to filter for movies with English, Spanish, or Korean language.

```
6 union all
7 select count(*) from movie_revenues
8 union all
9 select count(*) from movies_actors
10
11 SELECT movie_name, release_date FROM movies;
12 SELECT first_name, last_name from directors
13 WHERE nationality='American';
14 SELECT first_name, last_name, gender, date_of_birth FROM actors
15 WHERE gender='M' AND date_of_birth > '1970-1-1'
16 SELECT movie_name, SUM (movie_length) FROM movies
17 WHERE (movie_lang) IN ('English')
18 GROUP BY movie_name
19 HAVING SUM (movie_length)>90
20 SELECT movie_name, movie_lang FROM movies
21 WHERE movie_lang='English' OR movie_lang='Spanish' OR movie_lang='Korean';
22
```

The Data Output tab shows the results of the query, displaying a table with two columns: movie_name and movie_lang. The results list 12 movies and their corresponding language.

movie_name	movie_lang
A Clockwork Orange	English
Apocalypse Now	English
Blade Runner	English
Eyes Wide Shut	English
Forrest Gump	English
Gladiator	English
Gone with the Wind	English
Goodfellas	English
Grand Budapest Hotel	English
Jaws	English
Leon	English
Life of Brian	English

2.

The screenshot shows the pgAdmin 4 interface. On the left, the 'Browser' pane displays a tree view of the database structure, with 'movies' selected under the 'public' schema. The main pane is divided into two sections: 'Query Editor' and 'Data Output'.

Query Editor: The SQL query is as follows:

```
7 select count(*) from movie_revenues
8 union all
9 select count(*) from movies_actors
10
11 SELECT movie_name, release_date FROM movies;
12 SELECT first_name, last_name from directors
13 WHERE nationality='American';
14 SELECT first_name, last_name, gender, date_of_birth FROM actors
15 WHERE gender='M' AND date_of_birth > '1970-1-1'
16 SELECT movie_name, SUM (movie_length) FROM movies
17 WHERE (movie_lang) IN ('English')
18 GROUP BY movie_name
19 HAVING SUM (movie_length)>90
20 SELECT movie_name, movie_lang FROM movies
21 WHERE movie_lang='English' OR movie_lang='Spanish' OR movie_lang='Korean';
22 SELECT first_name, last_name FROM actors
23 WHERE last_name LIKE 'M%' AND date_of_birth BETWEEN '1940-1-1' AND '1969-12-31'
```

Data Output: The results are displayed in a table with two columns: 'first_name' and 'last_name'.

first_name	last_name
Francis	McDormand
Malcolm	McDowell
Alfred	Molina
Cathy	Moriarty
Ulrich	Muhe
Bill	Murray

A status bar at the bottom right indicates: 'Successfully run. Total query runtime: 39 msec. 6 rows affected.'

3.

The screenshot shows the pgAdmin 4 interface. On the left, the 'Browser' pane displays a tree view of the database structure, with 'movies' selected under the 'public' schema. The main pane is divided into two sections: 'Query Editor' and 'Data Output'.

Query Editor: The SQL query is as follows:

```
9 select count(*) from movies_actors
10
11 SELECT movie_name, release_date FROM movies;
12 SELECT first_name, last_name from directors
13 WHERE nationality='American';
14 SELECT first_name, last_name, gender, date_of_birth FROM actors
15 WHERE gender='M' AND date_of_birth > '1970-1-1'
16 SELECT movie_name, SUM (movie_length) FROM movies
17 WHERE (movie_lang) IN ('English')
18 GROUP BY movie_name
19 HAVING SUM (movie_length)>90
20 SELECT movie_name, movie_lang FROM movies
21 WHERE movie_lang='English' OR movie_lang='Spanish' OR movie_lang='Korean';
22 SELECT first_name, last_name FROM actors
23 WHERE last_name LIKE 'M%' AND date_of_birth BETWEEN '1940-1-1' AND '1969-12-31'
24 SELECT first_name, last_name from directors
25 WHERE nationality='British' OR nationality='French' OR nationality='German' AND date_of_birth BETWEEN '1950-1-1' AND '1980-12-31'
```

Data Output: The results are displayed in a table with two columns: 'first_name' and 'last_name'.

first_name	last_name
Richard	Ayoade
Luc	Besson
Florian	Henckel von Donnersmar...
Terry	Jones
Martin	McDonagh
Ridley	Scott
Tony	Scott
Robert	Stevenson

A status bar at the bottom right indicates: 'Successfully run. Total query runtime: 46 msec. 8 rows affected.'