SQL Assignment (SBA)

1. Create Database project_movie_data and deploy table data according to ER diagram.

```
create database project_movie;
use project_movie;
create table actor (act_id int not null,act_fname char(20),act_lname char(20),act_gender
char(1),primary key (act_id));
create table director (dir_id int not null,dir_fname varchar(20),dir_lname
varchar(20),primary key(dir_id));
create table movie (mov_id int not null,mov_title varchar(50),mov_year int not
null,mov_time int not null,mov_lang varchar(50),mov_dt_rel date,
mov_rel_country varchar(5),primary key (mov_id));
create table reviewer (rev_id int not null,rev_name varchar(30),primary key (rev_id));
create table genres(gen_id int not null,gen_title varchar(20),primary key(gen_id));
create table movie_cast (act_id int not null, mov_id int not null,role varchar(20),foreign
key(act_id) references actor(act_id),foreign key(mov_id)
references movie (mov_id));
create table movie_direction (dir_id int not null,mov_id int not null,foreign key(dir_id)
references director (dir_id),foreign key(mov_id) references
movie (mov_id));
create table movie_genres (mov_id int not null,gen_id int not null,foreign key (mov_id)
references movie(mov_id),foreign key (gen_id) references
genres (gen_id));
create table rating (mov_id int not null,rev_id int not null,rev_stars int not
null,num_o_rating int not null,foreign key (mov_id) references
movie (mov_id),foreign key(rev_id) references reviewer (rev_id));
```

2. Create 9 tables which are presented in ER model and load the data with their foreign key and primary key values.

```
insert into actor (act_id,act_fname,act_lname,act_gender) values
(101,'james','stewart','M'),(102,'Deborah','kerr','F'),(103,'Peter','OToole','M'),
(104,'Robert','De
Niro','M'),(105,'F.Murray','Abraham','M'),(106,'Harrison','Ford','M'),(107,'Nicole','Kidman','F'),(10
8,'Stephen','Baldwin','M'),
(109,'Jack','Nicholson','M'),(110,'Mark','Wahlberg','M'),(111,'Woody','Allen','M'),(112,'Clarie','Da
nes','F'),(113,'Tim','Robbins','M'),
```

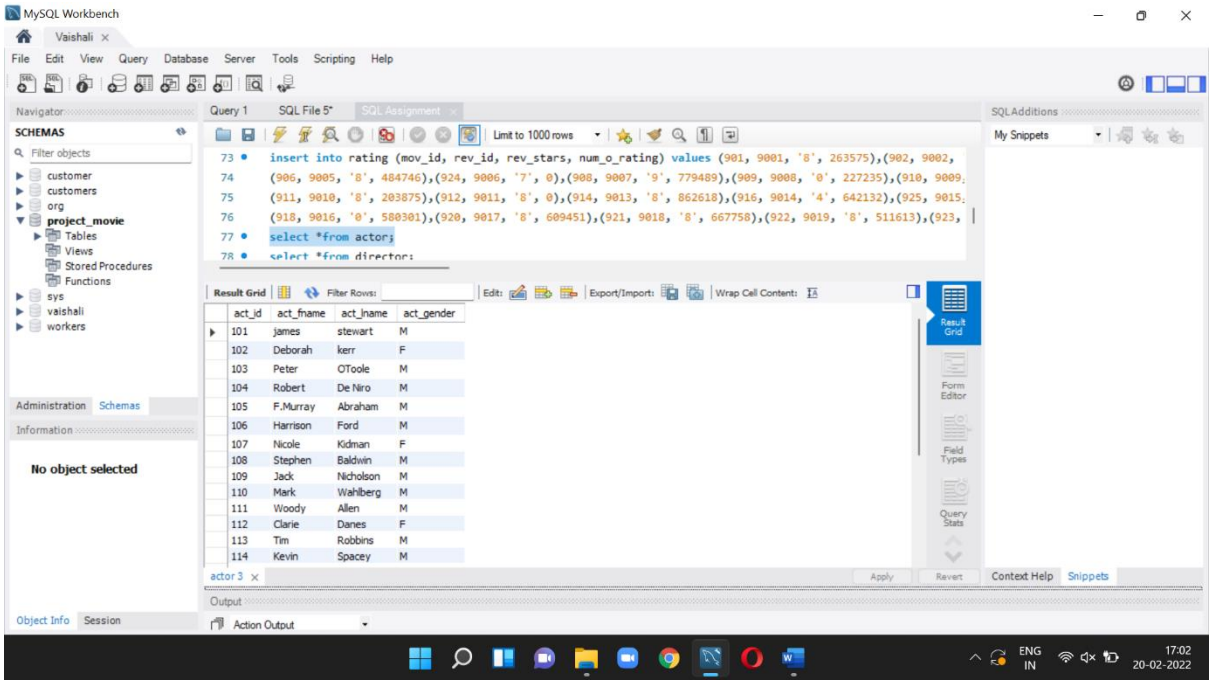
(114,'Kevin','Spacey','M'),(115,'Kate','Winslet','M'),(116,'Robin','Williams','M'),(117,'Jon','Voight','M'),(118,'Ewan','McGregor','M'),
(119,'Christian','Bale','M'),(120,'Maggie','Gyllenhaal','F'),(121,'Dev','Patel','M'),(122,'Sigourney','Weaver','F'),(123,'David','Aston','M'),
(124,'Ali','Astin','F');
insert into director (dir_id, dir_fname, dir_lname)values (201, 'Alfred', 'Hitchcock'),(202, 'Jack', 'Clayton'),(203, 'David', 'Lean'),(204, 'Michael', 'Cimino'),(205, 'Milos', 'Forman'),(206, 'Ridley', 'Scott'),
(207, 'Stanley', 'Kubrick'),(208, 'Bryan', 'Singer'),(209, 'Roman', 'Polanski'),(210, 'Paul', 'Thomas Anderson'),(211, 'Woody', 'Allen'),(212, 'Hayao', 'Miyazaki'),
(213, 'Frank', 'Darabont'),(214, 'Sam', 'Mendes'),(215, 'James', 'Cameron'),(216, 'Gus', 'Van Sant'),(217, 'John', 'Boorman'),(218, 'Danny', 'Boyle'),
(219, 'Christoph', 'Nolan'),(220, 'Richard', 'Kelly'),(221, 'Kevin', 'Spacey'),(222, 'Andrei','Tarkovsky'),(223, 'Peter', 'Jackson');

insert into
movie(mov_id,mov_title,mov_year,mov_time,mov_lang,mov_dt_rel,mov_rel_country)values
(901, 'Vertigo', 1958, 128, ' English ', '1958-08-24', ' UK'),
(902, 'The Innocents', 1961, 100, ' English ', '1962-02-19', ' SW'),
(903, 'Lawrence of Arabia', 1962, 216, ' English ', '1962-12-11', ' UK'),
(904, 'The Deer Hunter', 1978, 183, ' English ', '1979-03-08', ' UK'),
(905, 'Amadeus', 1984, 160, ' English ', '1985-01-07', ' UK'),
(906, 'Blade Runner', 1982, 117, ' English ', '1982-09-09', ' UK'),
(907, 'Eyes Wide Shut', 1999, 159, ' English ', null, ' UK'),
(908, 'The Usual Suspects', 1995, 106, ' English ', '1995-08-25', ' UK'),
(909, 'Chinatown', 1974, 130, ' English ', '1974-08-09', ' UK'),
(910, 'Boogie Nights', 1997, 155, ' English ', '1998-02-16', ' UK'),
(911, 'Annie Hall', 1977, 93, ' English ', '1977-04-20', ' USA'),
(912, 'Princess Mononoke', 1997, 134, ' Japanese ', '2001-10-19', ' UK'),
(913, 'The Shawshank Redem', 1994, 142, ' English ', '1995-02-17', ' UK'),
(914, 'American Beauty', 1999, 122, ' English ', null, ' UK'),
(915, 'Titanic', 1997, 194, ' English ', '1998-01-23', ' UK'),
(916, 'Good Will Hunting', 1997, 126, ' English ', '1998-06-03', ' UK'),
(917, 'Deliverance', 1972, 109, ' English ', '1982-10-05', ' UK'),
(918, 'Trainspotting', 1996, 94, ' English ', '1996-02-23', ' UK'),
(919, 'The Prestige', 2006, 130, ' English ', '2006-11-10', ' UK'),
(920, 'Donnie Darko', 2001, 113, ' English ', null, ' UK'),
(921, 'Slumdog Millionaire', 2008, 120, ' English ', '2009-01-09', ' UK'),
(922, 'Aliens', 1986, 137, ' English ', '1986-08-29', ' UK'),
(923, 'Beyond the Sea', 2004, 118, ' English ', '2004-11-26', ' UK'),
(924, 'Avatar', 2009, 162, ' English ', '2009-12-17', ' UK'),
(925, 'Braveheart', 1995, 178, ' English ', '1995-09-08', ' UK'),
(926, 'Seven Samurai', 1954, 207, ' Japanese ', '1954-04-26', ' JP'),
(927, 'Spirited Away', 2001, 125, ' Japanese ', '2003-09-12', ' UK'),
(928, 'Back to the Future', 1985, 116, ' English ', '1985-12-04', ' UK');

```
insert into reviewer(rev_id,rev_name)values(9001,'Righty Sock'),(9002,'Jack
Malvern'),(9003,'Flagrant Baronessa'),
(9005,null),(9006,'Alec Shaw'),(9007,'Simon Wright'),(9008,'Neal Wruck'),(9009,'Paul
Monks'),(9010,'Mike Salvati'),(9011,null),
(9012,'Wesley S.Walker'),(9013,'Sasha Goldshtein'),(9014,'Josh Cates'),(9015,'Krug
Stillo'),(9016,'Scott LeBrun'),
(9017,'Hannah Steele'),(9018,'Vincent Cadena'),(9019,'Brandt Sponseller'),(9020,'Richard
Adams');
insert into genres (gen_id, gen_title) values (1001, 'Action'),(1002, 'Adventure'),(1003,
'Animation'),(1004, 'Biography'),(1005, 'Comedy'),
(1006, 'Crime'),(1007, 'Drama'),(1008, 'Horror'),(1009, 'Music'),(1010, 'Mystery'),(1011,
'Romance'),(1012, 'Thriller'),(1013, 'War');
insert into movie_cast (act_id, mov_id, role) values(101, 901, 'John Scottie Fergus'),(102, 902,
'Miss Giddens'),(103, 903, 'T.E. Lawrence'),(104, 904, 'Michael'),(105, 905, 'Antonio Salieri'),
(106, 906, 'Rick Deckard'),(107, 907, 'Alice Harford'),(108, 908, 'McManus'),(110, 910, 'Eddie
Adams'),(111, 911, 'Alvy Singer'),
(112, 912, 'San'),(113, 913, 'Andy Dufresne'),(114, 914, 'Lester Burnham'),(115, 915, 'Rose
DeWitt Bukater'),(116, 916, 'Sean Maguire'),
(117, 917, 'Ed'),(118, 918, 'Renton'),(120, 920, 'Elizabeth Darko'),(121, 921, 'Older Jamal'),(122,
922, 'Ripley'),
(114, 923, 'Bobby Darin'),(109, 909, 'J.J. Gittes'),(119, 919, 'Alfred Borden');
insert into movie_direction (dir_id, mov_id) values (201, 901),(202, 902),(203, 903),(204,
904),(205, 905),(206, 906),(207, 907),
(208, 908),(209, 909),(210, 910),(211, 911),(212, 912),(213, 913),(214, 914),(215, 915),(216,
916),(217, 917),
(218, 918),(219, 919),(220, 920),(218, 921),(215, 922),(221, 923);
insert into movie_genres (mov_id, gen_id) values (922, 1001),(917, 1002),(903, 1002),(912,
1003),
(911, 1005),(908, 1006),(913, 1006),(926, 1007),(928, 1007),(918, 1007),(921, 1007),(902, 1008),
(923, 1009),(907, 1010),(927, 1010),(901, 1010),(914, 1010),(906, 1012),(904, 1013);
insert into rating (mov_id, rev_id, rev_stars, num_o_rating) values (901, 9001, '8', 263575),(902,
9002, '8', 20207),(903, 9003, '8', 202778),
(906, 9005, '8', 484746),(924, 9006, '7', 0),(908, 9007, '9', 779489),(909, 9008, '0', 227235),(910,
9009, '3', 195961),
(911, 9010, '8', 203875),(912, 9011, '8', 0),(914, 9013, '8', 862618),(916, 9014, '4', 642132),(925,
9015, '8', 81328),
(918, 9016, '0', 580301),(920, 9017, '8', 609451),(921, 9018, '8', 667758),(922, 9019, '8',
511613),(923, 9020, '7', 13091);
```

Output after inserting elements into the table:

Table 1: Actors


MySQL Workbench
Vaishali
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
customer
customers
org
project_movie
Tables
Views
Stored Procedures
Functions
sys
vaishali
workers
Administration Schemas
Information
No object selected
Object Info Session
Query 1 SQL File 5* SQL Assignment
Limit to 1000 rows
SQLAdditions
My Snippets
73 insert into rating (mov_id, rev_id, rev_stars, num_o_rating) values (901, 9001, '8', 263575),(902, 9002,
74 (906, 9005, '8', 484746),(924, 9006, '7', 0),(908, 9007, '9', 779489),(909, 9008, '0', 227235),(910, 9009,
75 (911, 9010, '8', 203875),(912, 9011, '8', 0),(914, 9013, '8', 862618),(916, 9014, '4', 642132),(925, 9015,
76 (918, 9016, '0', 580301),(920, 9017, '8', 609451),(921, 9018, '8', 667758),(922, 9019, '8', 511613),(923,
77 select *from actor;
78 select *from director;
Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:
act_id act_fname act_lname act_gender
101 james stewart M
102 Deborah kerr F
103 Peter OToole M
104 Robert De Niro M
105 F.Murray Abraham M
106 Harrison Ford M
107 Nicole Kidman F
108 Stephen Baldwin M
109 Jack Nicholson M
110 Mark Wahlberg M
111 Woody Allen M
112 Clarie Danes F
113 Tim Robbins M
114 Kevin Spacey M
Result Grid
Form Editor
Field Types
Query Stats
actor 3
Apply Revert
Context Help Snippets
Output
Action Output
ENG IN
17:02
20-02-2022

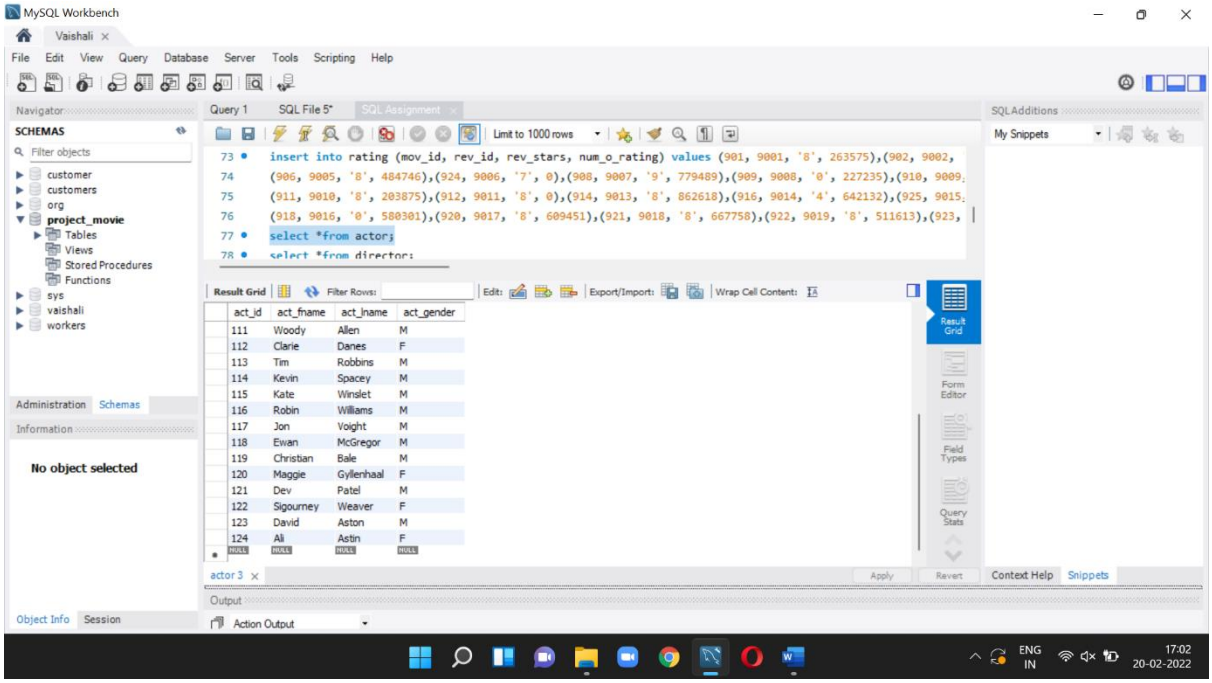
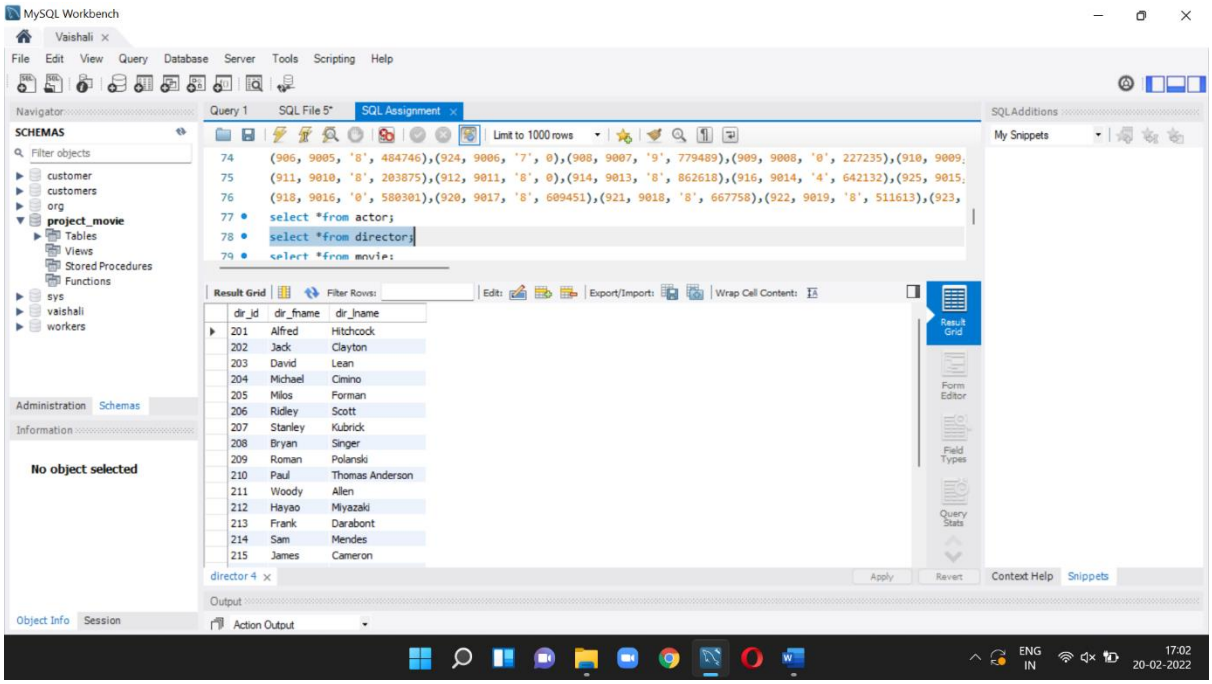

MySQL Workbench
Vaishali
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
customer
customers
org
project_movie
Tables
Views
Stored Procedures
Functions
sys
vaishali
workers
Administration Schemas
Information
No object selected
Object Info Session
Query 1 SQL File 5* SQL Assignment
Limit to 1000 rows
SQLAdditions
My Snippets
73 insert into rating (mov_id, rev_id, rev_stars, num_o_rating) values (901, 9001, '8', 263575),(902, 9002,
74 (906, 9005, '8', 484746),(924, 9006, '7', 0),(908, 9007, '9', 779489),(909, 9008, '0', 227235),(910, 9009,
75 (911, 9010, '8', 203875),(912, 9011, '8', 0),(914, 9013, '8', 862618),(916, 9014, '4', 642132),(925, 9015,
76 (918, 9016, '0', 580301),(920, 9017, '8', 609451),(921, 9018, '8', 667758),(922, 9019, '8', 511613),(923,
77 select *from actor;
78 select *from director;
Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:
act_id act_fname act_lname act_gender
111 Woody Allen M
112 Clarie Danes F
113 Tim Robbins M
114 Kevin Spacey M
115 Kate Winslet M
116 Robin Williams M
117 Jon Voight M
118 Ewan McGregor M
119 Christian Bale M
120 Maggie Gyllenhaal F
121 Dev Patel M
122 Sigourney Weaver F
123 David Aston M
124 Ali Astin F
Result Grid
Form Editor
Field Types
Query Stats
actor 3
Apply Revert
Context Help Snippets
Output
Action Output
ENG IN
17:02
20-02-2022

Table 2: Directors



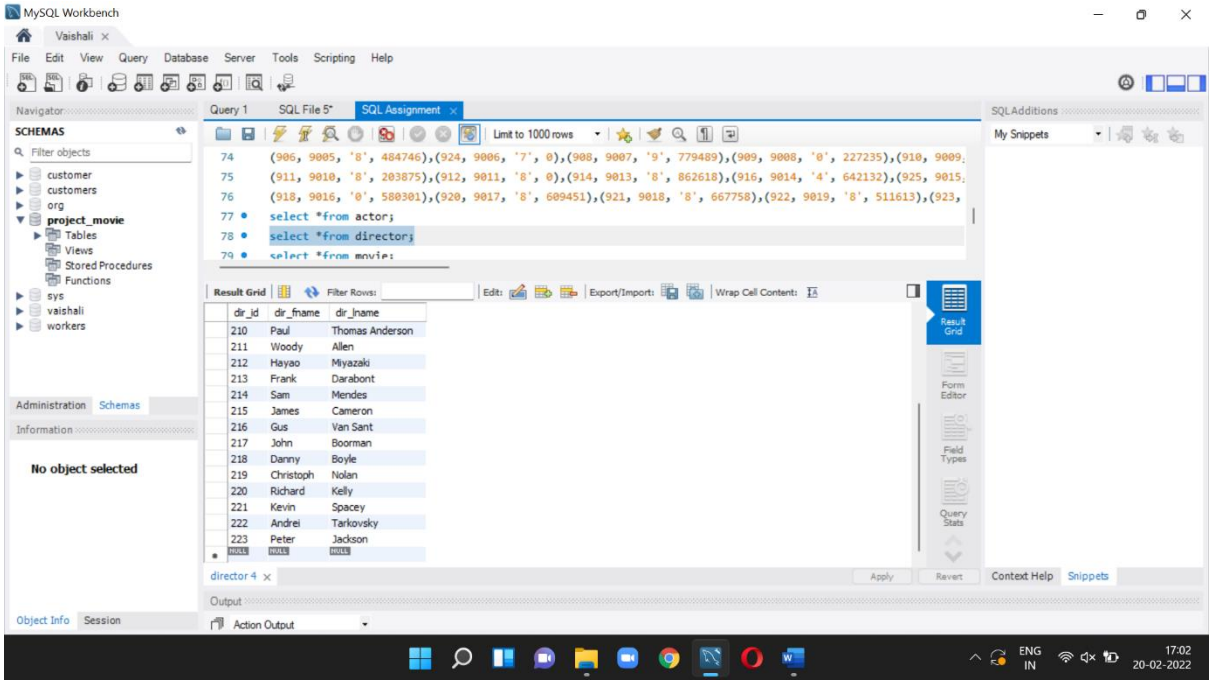
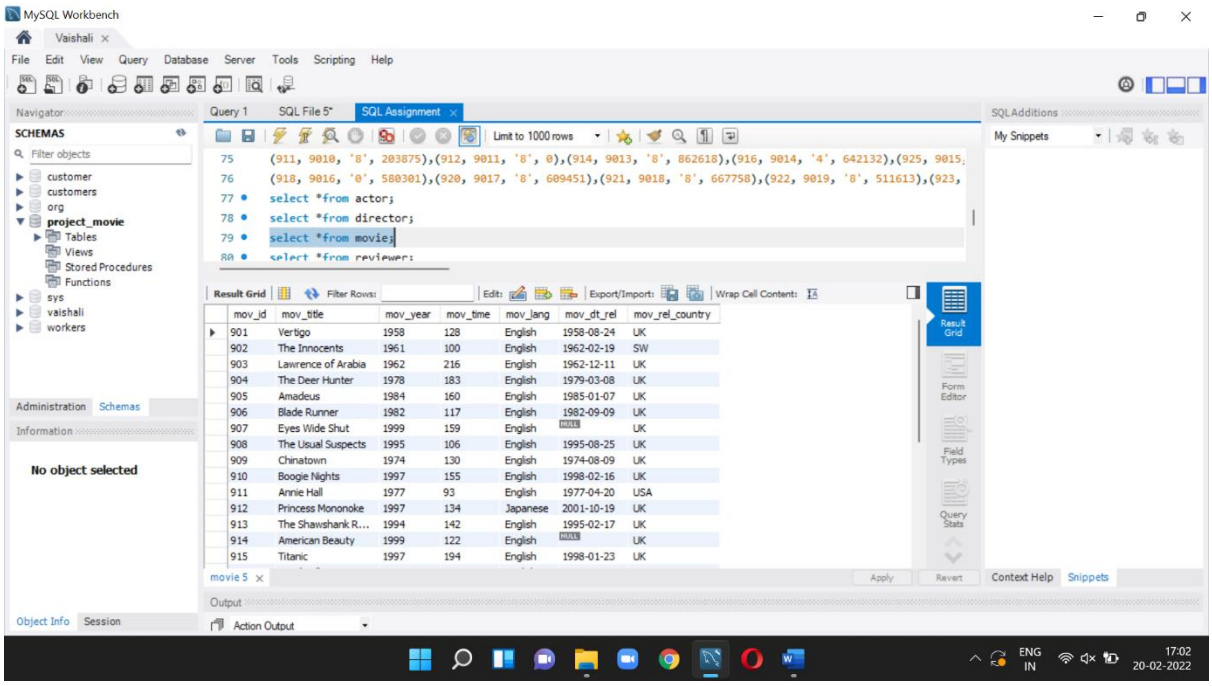


Table 3: Movies



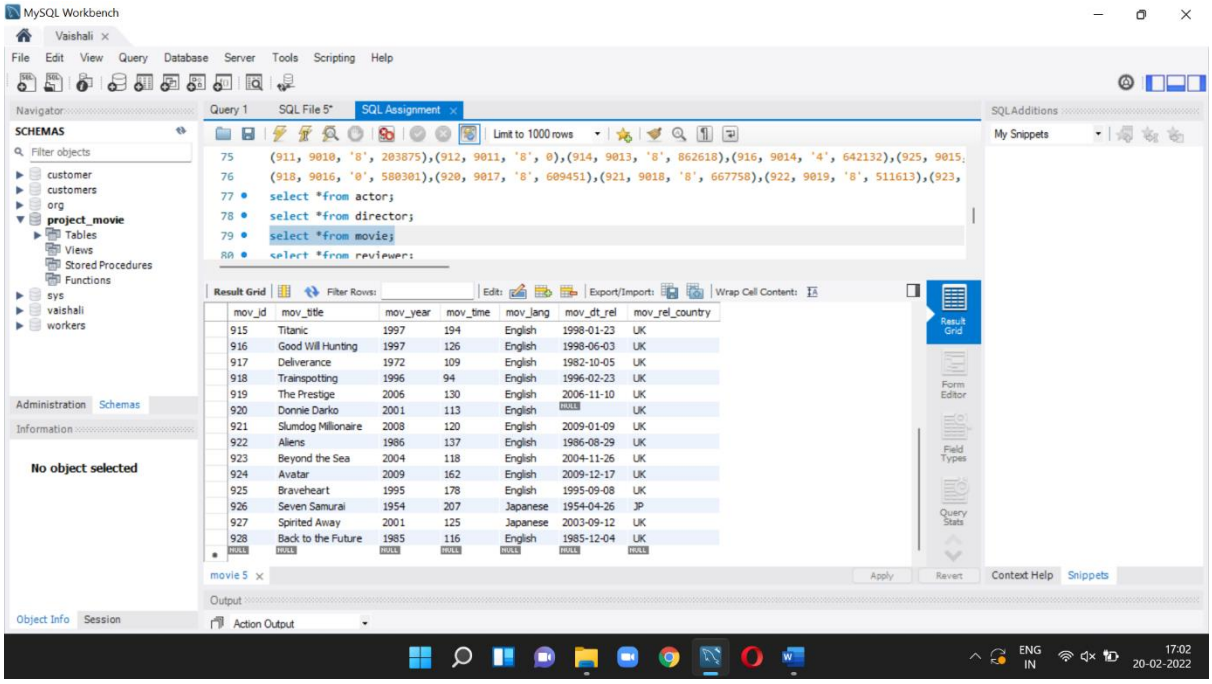
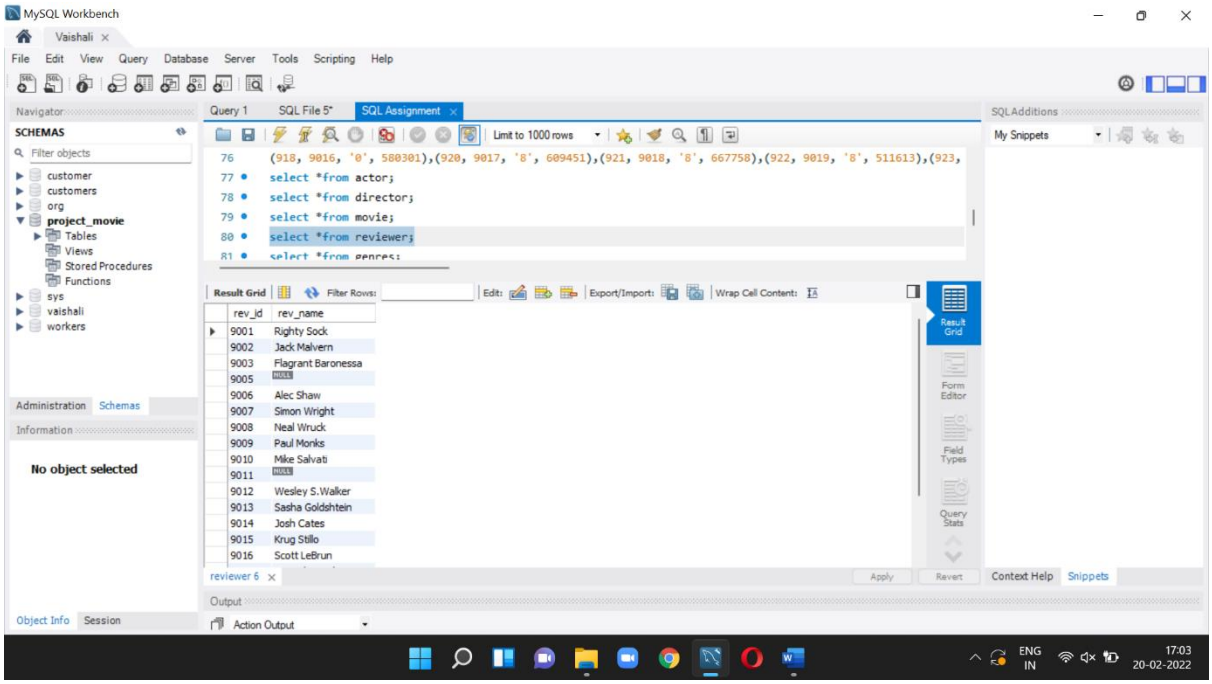


Table 4: Reviewer



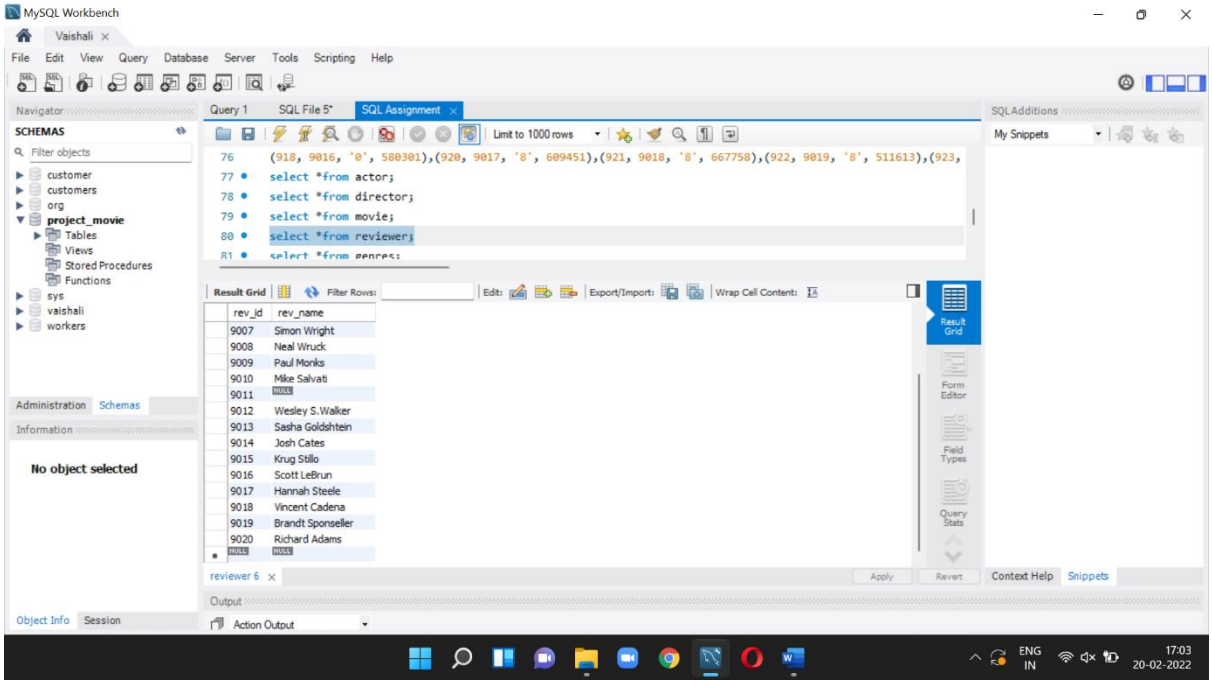


Table 5: Genres

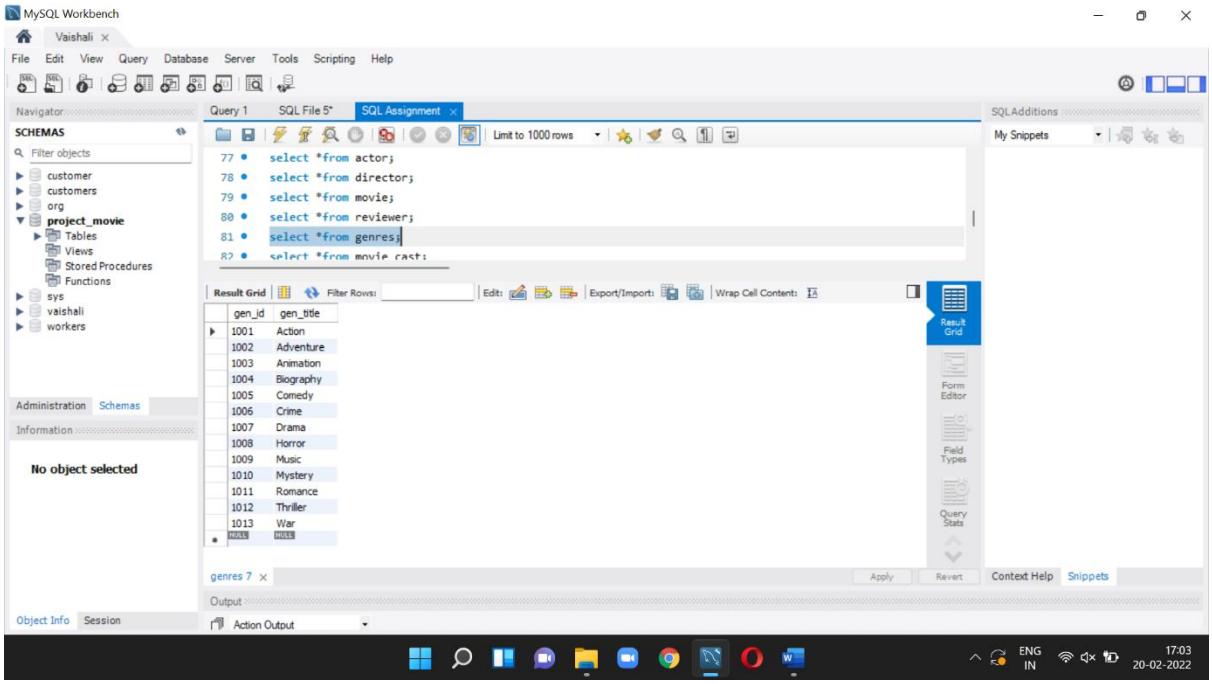
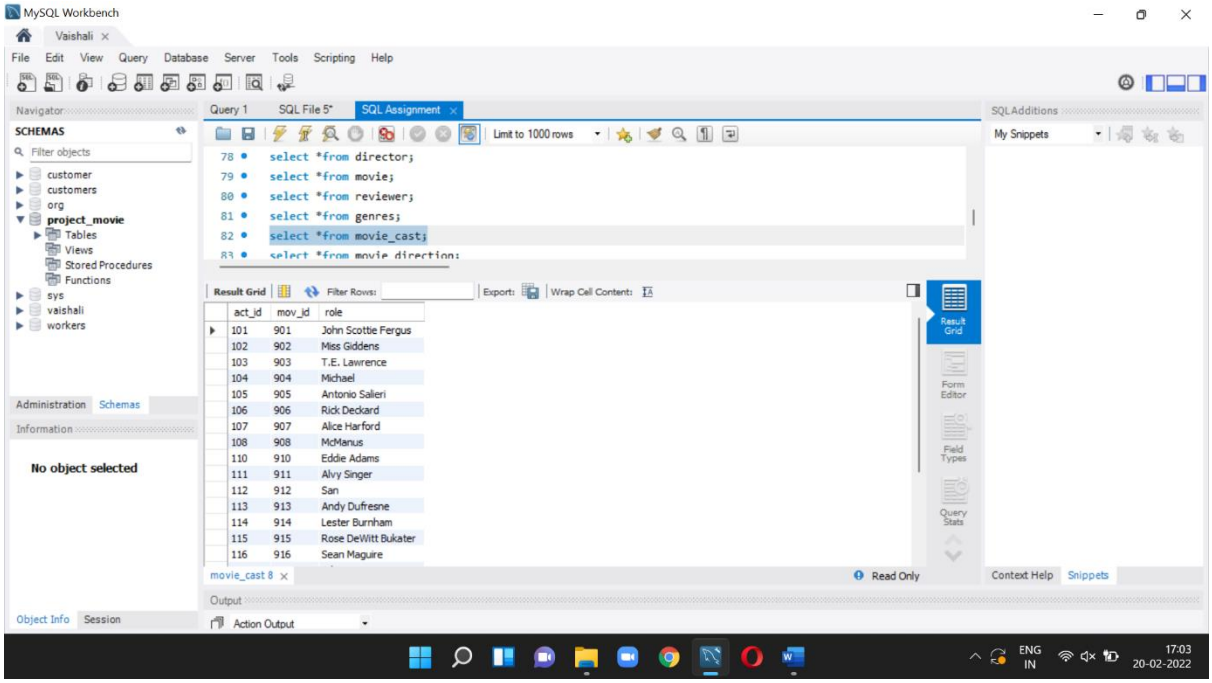


Table 6: Movie cast



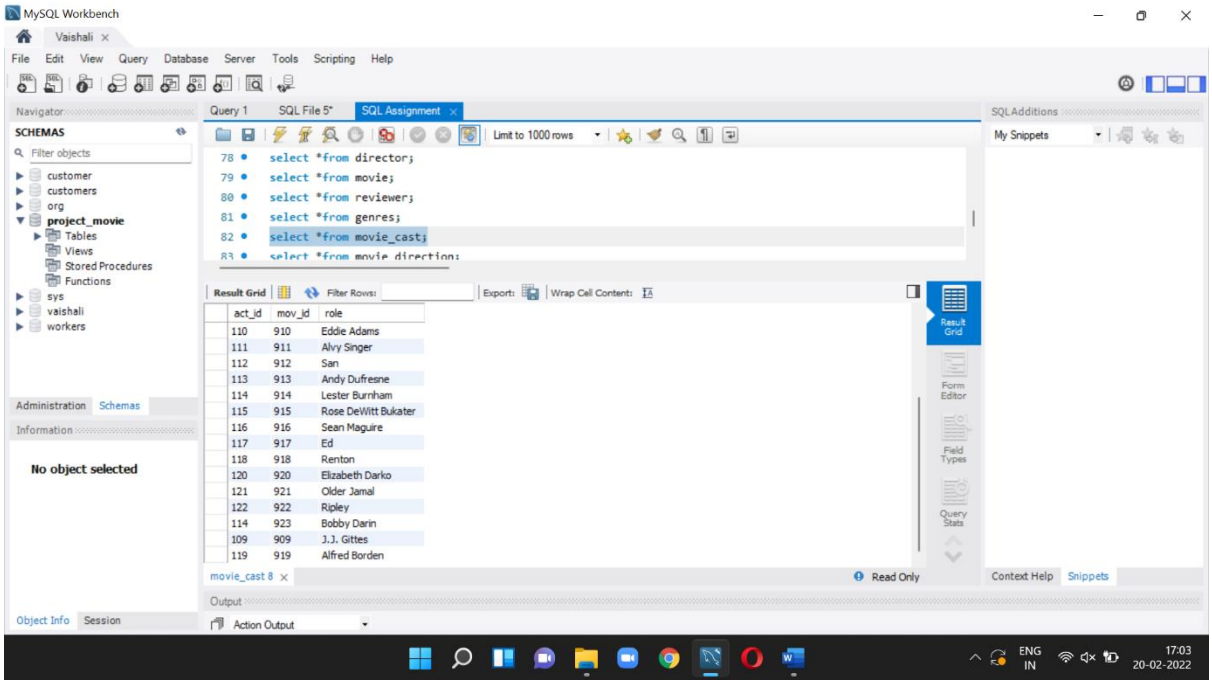
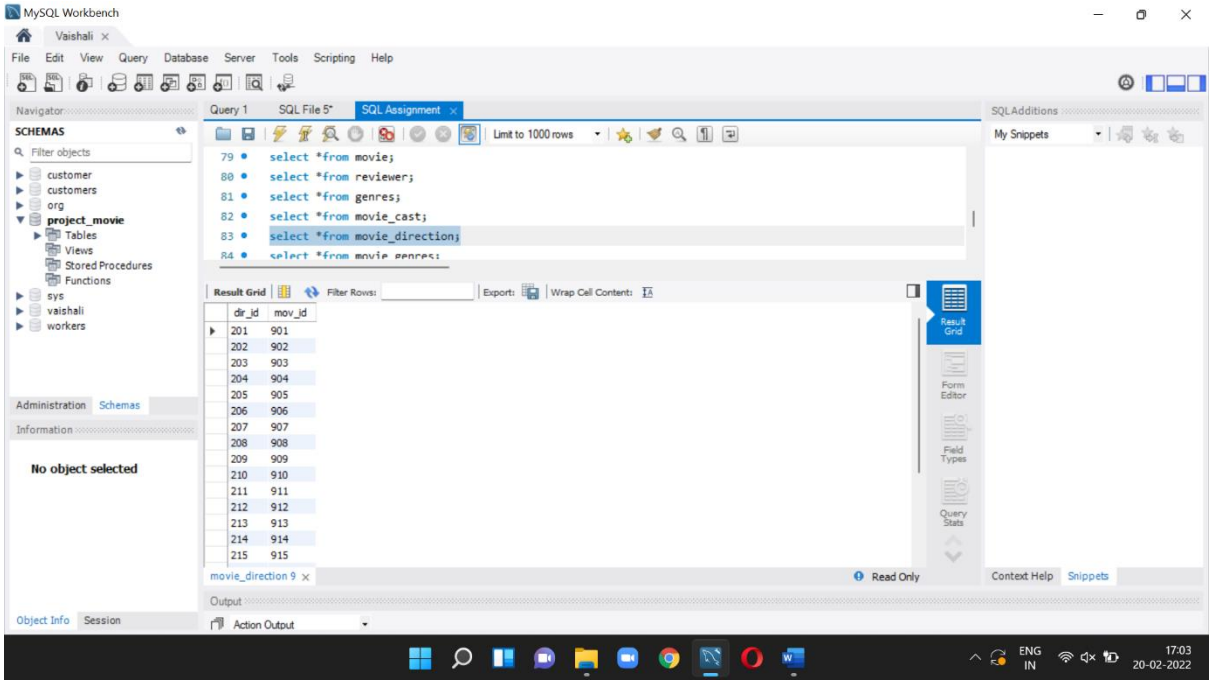


Table 7: Movie Direction



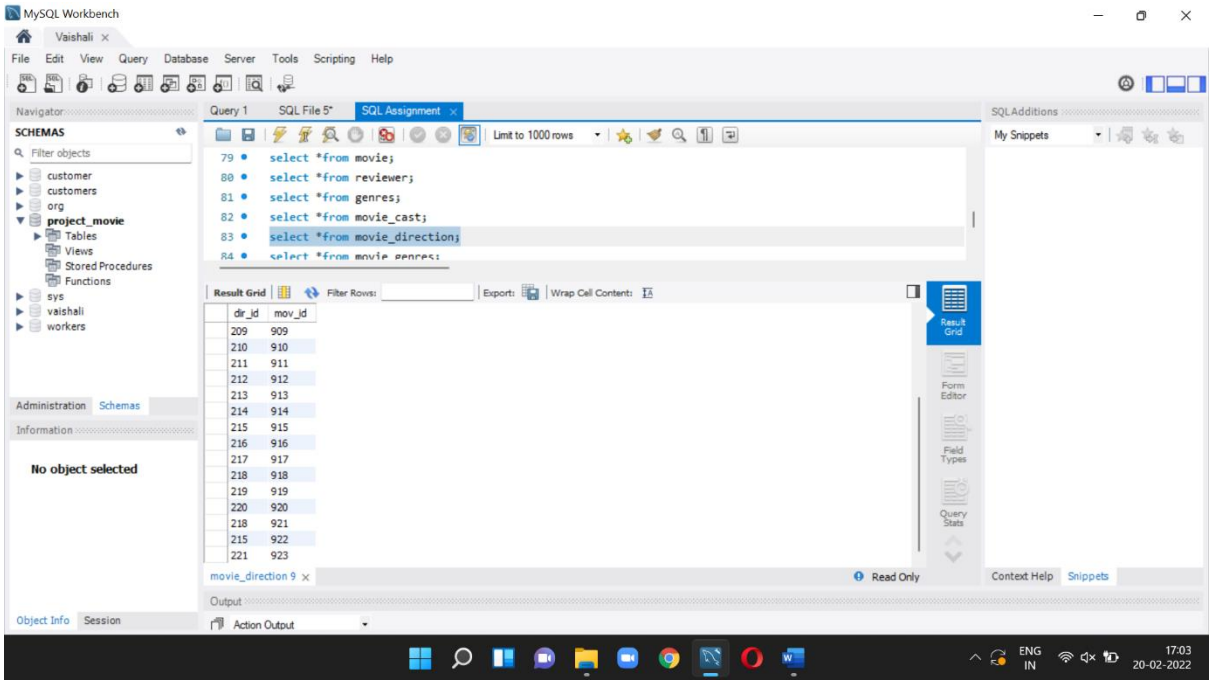
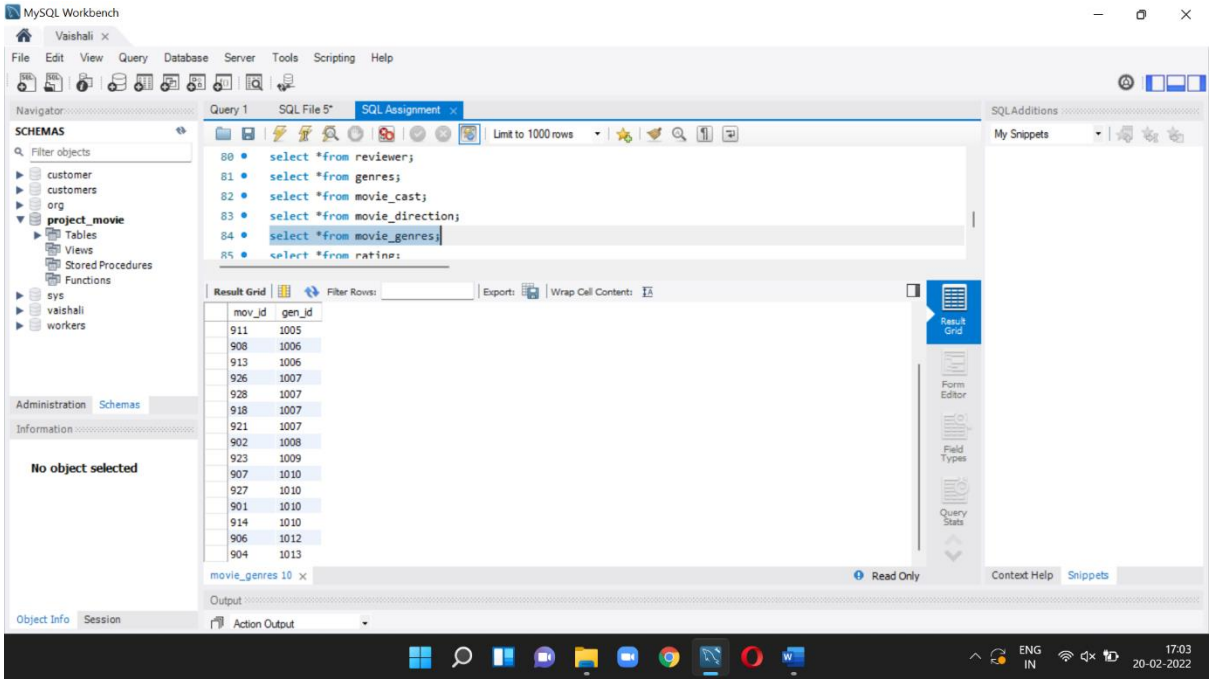


Table 8: Movie Genres



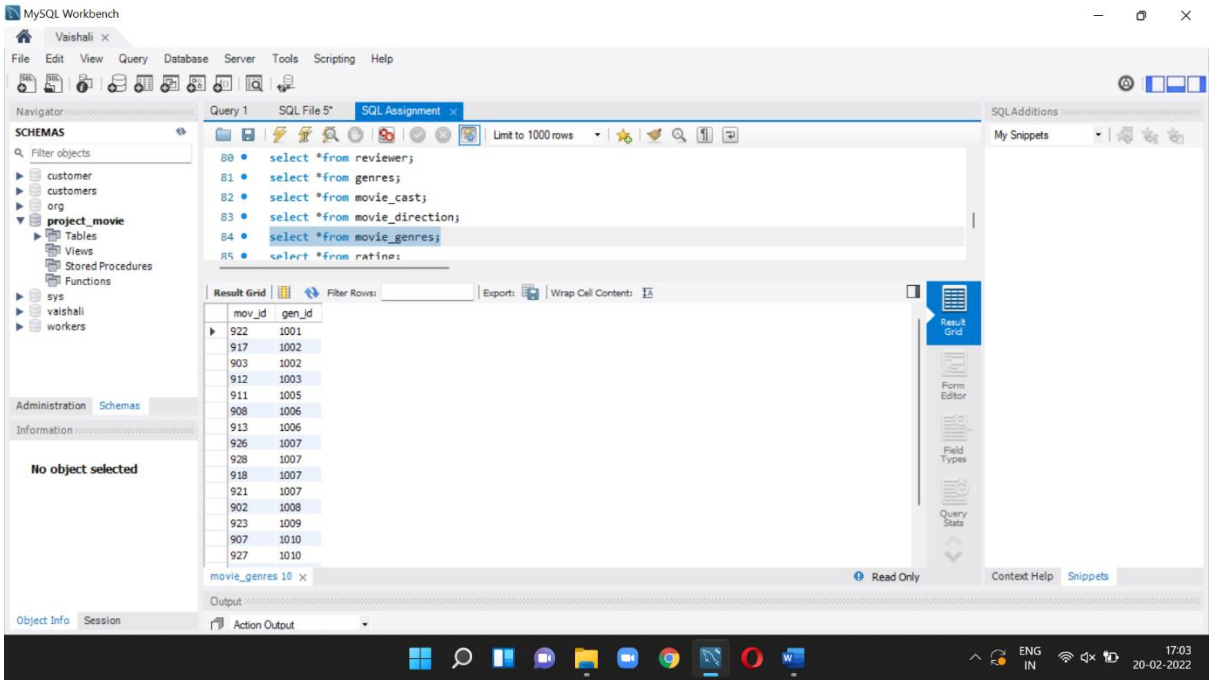
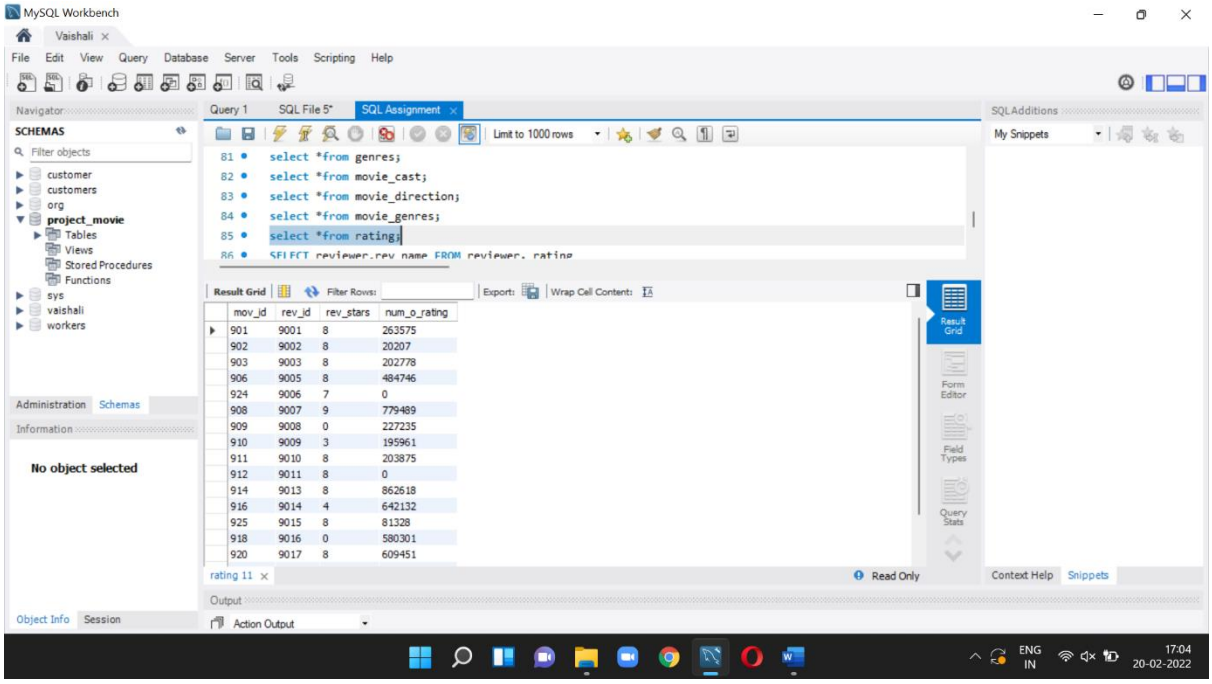
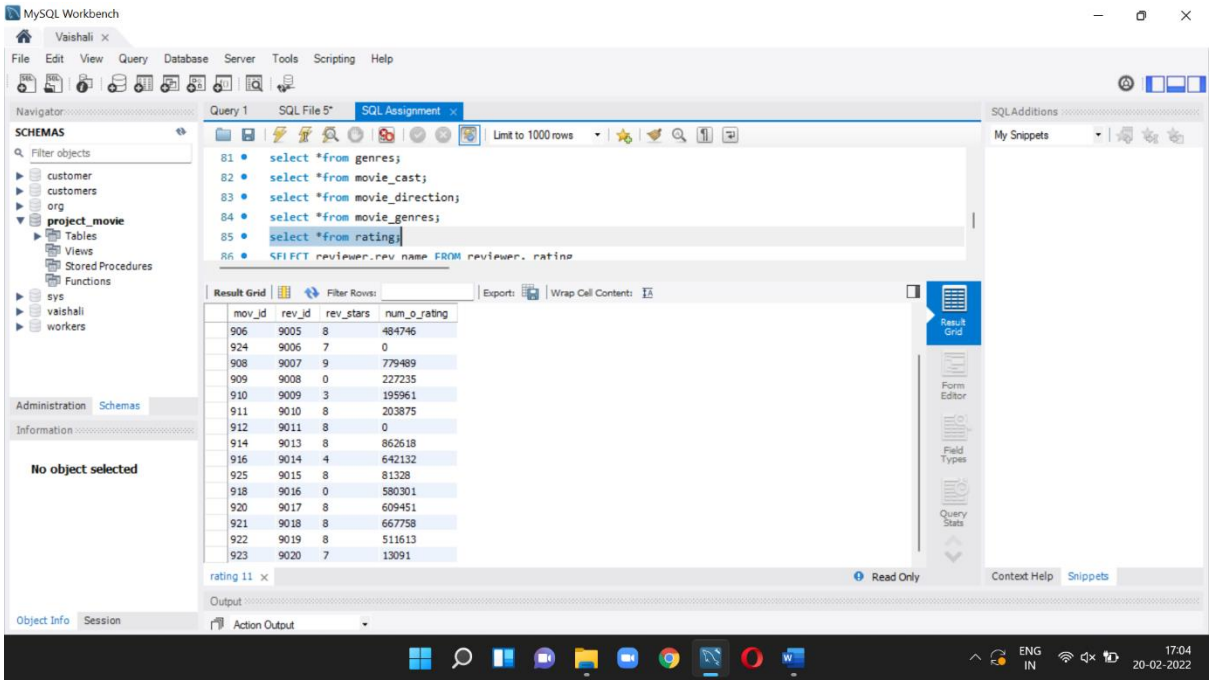


Table 9: Rating

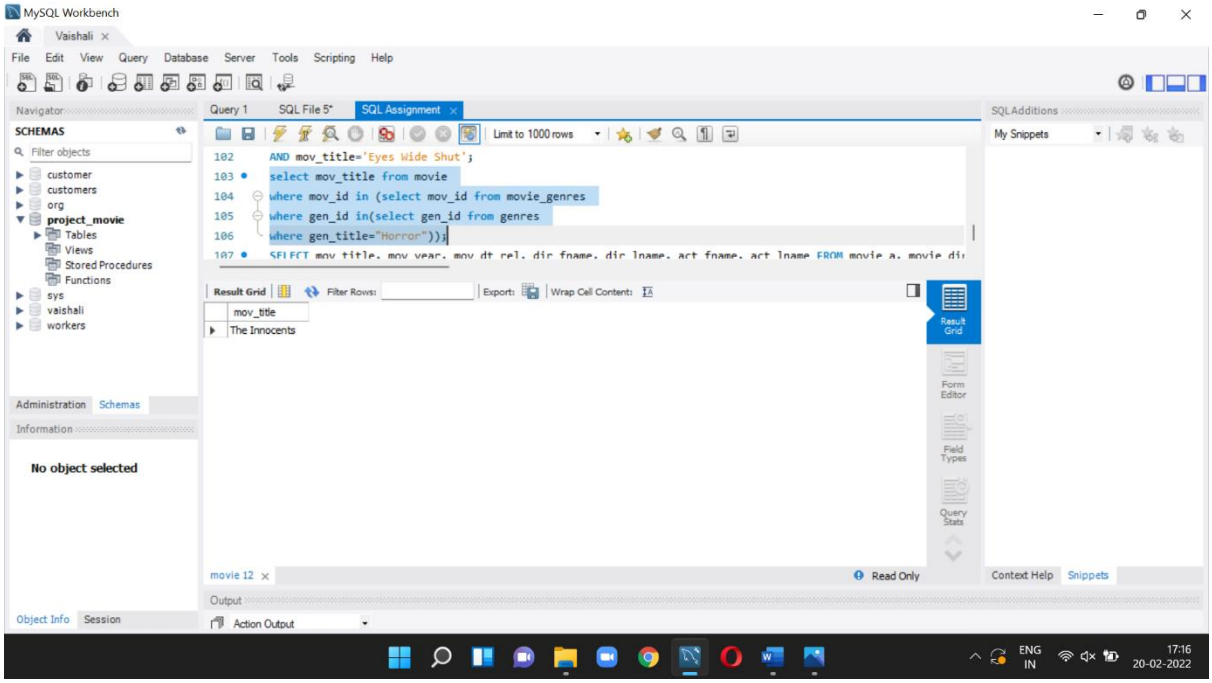




3. Write a query in SQL to list the Horror movies?

```
select mov_title from movie
where mov_id in (select mov_id from movie_genres
where gen_id in(select gen_id from genres
where gen_title="Horror"));
```

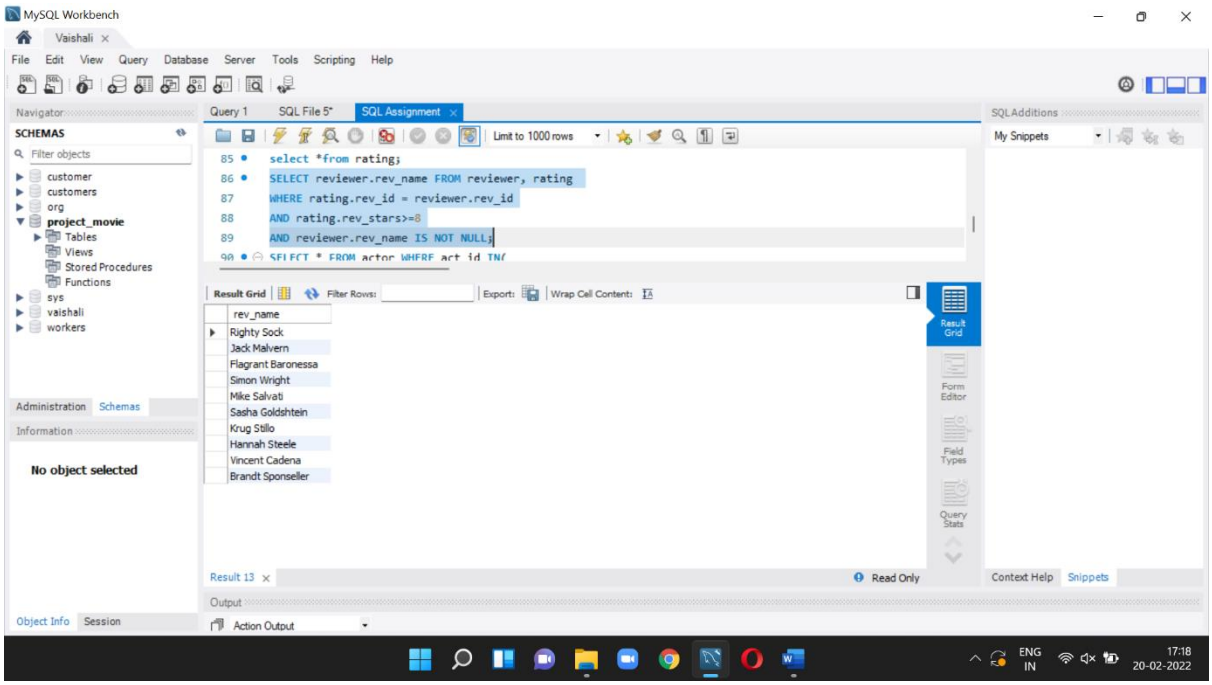
Output:



4. Write a query in SQL to find the name of all reviewers who have rated 8 or more stars?

```
SELECT reviewer.rev_name FROM reviewer, rating
WHERE rating.rev_id = reviewer.rev_id
AND rating.rev_stars>=8
AND reviewer.rev_name IS NOT NULL;
```

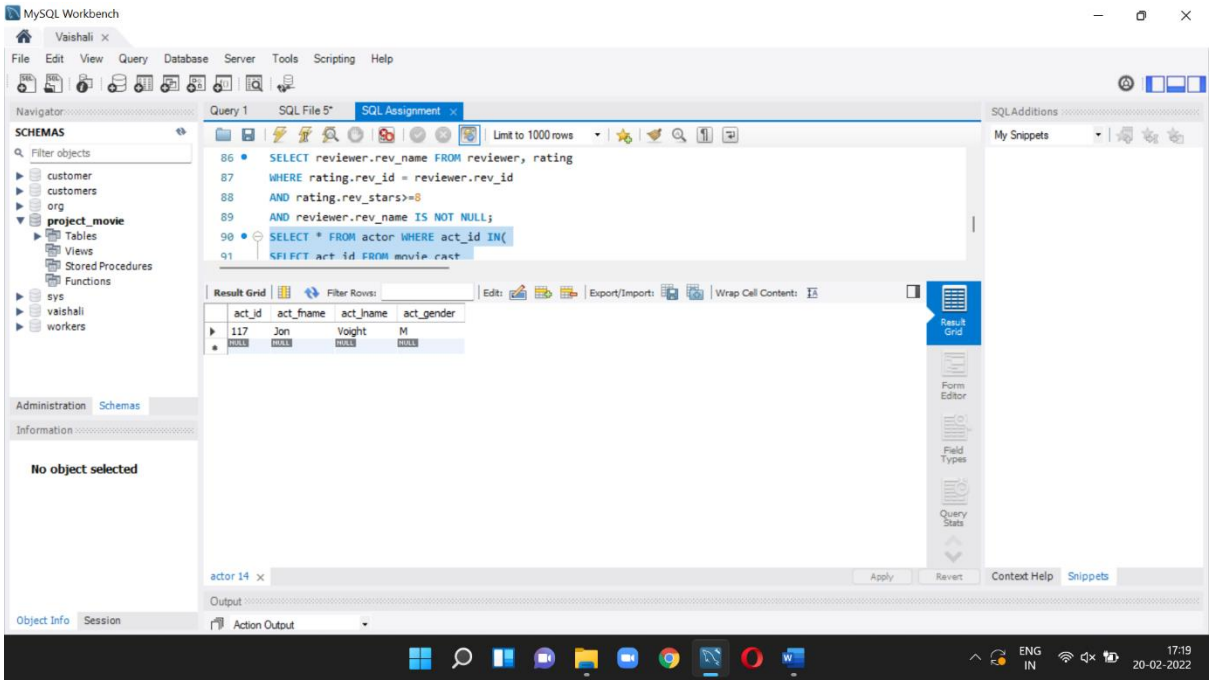
Output:



5. Write a query in SQL to list all the information of the actors who played a role in the movie ‘Deliverance’

```
SELECT * FROM actor WHERE act_id IN(
SELECT act_id FROM movie_cast
WHERE mov_id IN (
SELECT mov_id FROM movie
WHERE mov_title='Deliverance'
));
```

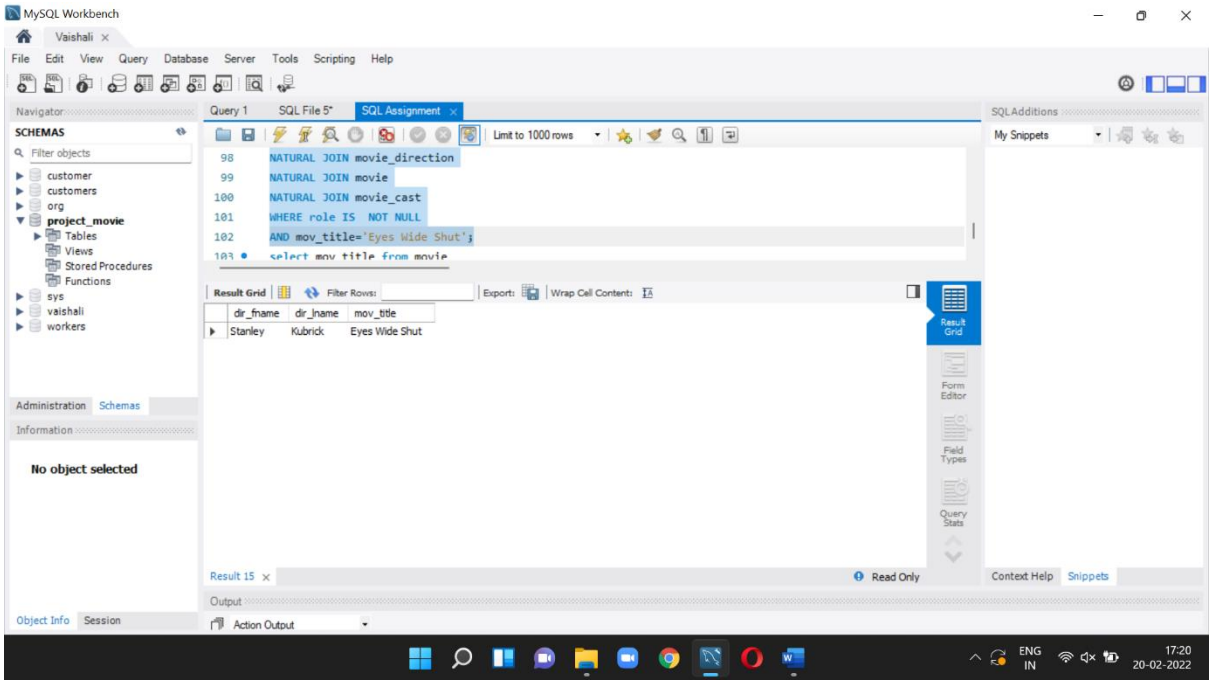
Output:



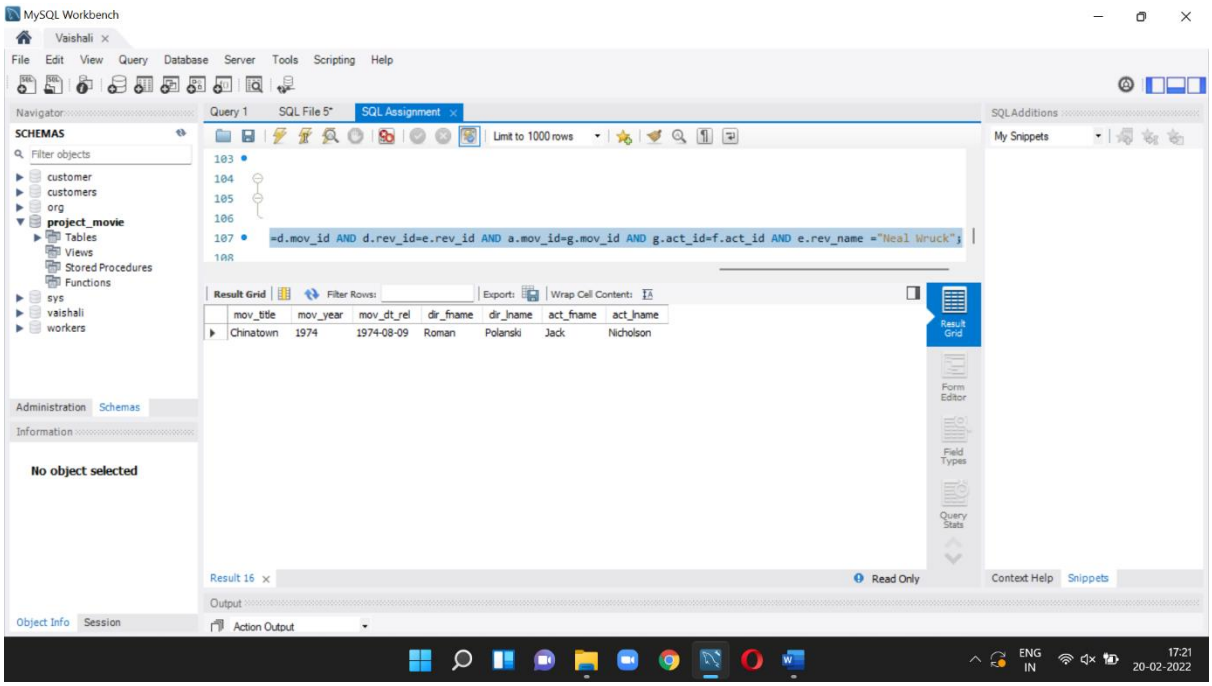
6. Write a query in SQL to find the name of the director (first and last names) who directed a movie that casted a role for ‘Eyes Wide Shut’. (using subquery)

```
SELECT dir_fname, dir_lname, mov_title
FROM  director
NATURAL JOIN movie_direction
NATURAL JOIN movie
NATURAL JOIN movie_cast
WHERE role IS  NOT NULL
AND mov_title='Eyes Wide Shut';
```

Output:



7. Write a query in SQL to find the movie title, year, date of release, director and actor for those movies which reviewer is ‘Neal Wruck’

SELECT mov_title, mov_year, mov_dt_rel, dir_fname, dir_lname, act_fname, act_lname FROM movie a, movie_direction b, director c, rating d, reviewer e, actor f, movie_cast g WHERE a.mov_id=b.mov_id AND b.dir_id=c.dir_id AND a.mov_id=d.mov_id AND d.rev_id=e.rev_id AND a.mov_id=g.mov_id AND g.act_id=f.act_id AND e.rev_name ="Neal Wruck";

Output: