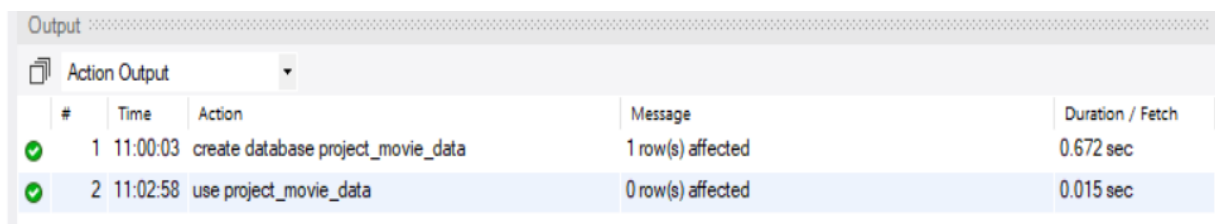## Section A

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

   create database project_movie_data;
   use project_movie_data;

#	Time	Action	Message	Duration / Fetch
✓	1 11:00:03	create database project_movie_data	1 row(s) affected	0.672 sec
✓	2 11:02:58	use project_movie_data	0 row(s) affected	0.015 sec

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

   create table actor
   (act_id int not null,act_fname varchar(20),
   act_lname varchar(20),
   act_gender varchar(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),

```sql
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_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_cast
(act_id int not null,
mov_id int not null,
role varchar(30),
foreign key(mov_id)references movie(mov_id),
foreign key(act_id)references actor(act_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,
num_o_ratings int,
```

```sql
foreign key(mov_id)references movie(mov_id),
primary key(rev_id));


insert into actor 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'),
(108,'Stephen','Baldwin','M'),
(109,'Jack','Nicholson','M'),
(110,'Mark','Wahlberg','M'),
(111,'Woody','Allen','M'),
(112,'Claire','Danes','F'),
(113,'Tim','Robbins','M'),
(114,'Kevin','Spacey','M'),
(115,'Kate','Winslet','F'),
(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 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,'Jon','Boorman'),
(218,'Danny','Boyle'),
(219,'Christopher','Nolan'),
(220,'Richard','Kelly'),
(221,'Kevin','Spacey'),
(222,'Andrei','Tarkovsky'),
(223,'Peter','Jackson');
insert into genres 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 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 Redemption',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'),
(926,'Seven Samurai',1954,207,'Japanese','1954-04-26','JP'),
(927,'Spirited Away',2001,125,'English','2003-09-12','UK'),
(928,'Back to the Future',1985,116,'English','1985-12-04','UK'),
(925,'Braveheart',1995,178,'English','1995-09-08','UK');

insert into movie_cast values
(101,901,'John Scottie Ferguson'),
(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,'Andy Dufresne'),
(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 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 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),
(914,1011),
(906,1012),
(904,1013);

insert into rating values
(901,9001,8.4,263575),
(902,9002,7.9,20207),
(903,9003,8.3,202778),
(906,9005,8.2,484746),
(924,9006,7.3,null),
(908,9007,8.6,779489),
(909,9008,null,227235),
(910,9009,3,195961),
(911,9010,8.1,203875),
(912,9011,8.4,null),
(914,9013,7,862618),
```

```
(915,9004,7.7,830095),
(916,9014,4,642132),
(925,9015,7.7,81328),
(918,9016,null,580301),
(920,9017,8.1,609451),
(921,9018,8,667758),
(922,9019,8.4,511613),
(923,9020,6.7,13091);

insert into reviewer values
(9001,'Right Sock'),
(9002,'Jack Malvern'),
(9003,'Flagrant Baronessa'),
(9004,'Alec Shaw'),
(9005,null),
(9006,'Victor Woeltjen'),
(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');
```

#	Time	Action	Message	Duration / Fetch
✓	1 23:03:40	create database project_movie_data	1 row(s) affected	0.188 sec
✓	2 23:03:43	use project_movie_data	0 row(s) affected	0.000 sec
✓	3 23:03:45	create table actor(act_id int not null,act_fname varchar...	0 row(s) affected	1.250 sec
✓	4 23:03:47	create table director(dir_id int not null,dir_fname varcha...	0 row(s) affected	0.578 sec
✓	5 23:03:51	create table movie(mov_id int not null,mov_title varcha...	0 row(s) affected	2.047 sec
✓	6 23:03:54	create table reviewer(rev_id int not null,rev_name varc...	0 row(s) affected	0.515 sec
✓	7 23:03:57	create table genres(gen_id int not null,gen_title varcha...	0 row(s) affected	0.969 sec
✓	8 23:04:01	create table movie_direction(dir_id int not null,mov_id i...	0 row(s) affected	1.313 sec
✓	9 23:04:06	create table movie_cast(act_id int not null,mov_id int n...	0 row(s) affected	1.906 sec
✓	10 23:04:10	create table movie_genres(mov_id int not null,gen_id i...	0 row(s) affected	1.016 sec
✓	11 23:04:14	create table rating(mov_id int not null,rev_id int not null...	0 row(s) affected	0.640 sec
✓	12 23:04:24	insert into actor values(101,'James','Stewart','M'),(102,'...	24 row(s) affected Records: 24 Duplicates: 0 Warnin...	0.234 sec
✓	13 23:04:30	insert into director values(201,'Alfred','Hitchcock'),(202,...	23 row(s) affected Records: 23 Duplicates: 0 Warnin...	0.109 sec
✓	14 23:04:35	insert into genres values(1001,'Action'),(1002,'Adventu...	13 row(s) affected Records: 13 Duplicates: 0 Warnin...	0.157 sec
✓	15 23:04:43	insert into movie values(901,'Vertigo',1958,128,'English...	28 row(s) affected Records: 28 Duplicates: 0 Warnin...	0.187 sec
✓	16 23:04:48	insert into movie_cast values(101,901,'John Scottie Fe...	23 row(s) affected Records: 23 Duplicates: 0 Warnin...	0.281 sec
✓	17 23:04:52	insert into movie_direction values(201,901),(202,902),(...	23 row(s) affected Records: 23 Duplicates: 0 Warnin...	0.360 sec
✓	18 23:04:56	insert into movie_genres values(922,1001),(917,1002),...	19 row(s) affected Records: 19 Duplicates: 0 Warnin...	0.188 sec
✓	19 23:05:01	insert into rating values(901,9001,8.4,263575),(902,90...	19 row(s) affected Records: 19 Duplicates: 0 Warnin...	0.282 sec
✓	20 23:05:07	insert into reviewer values(9001,'Right Sock'),(9002,'Ja...	20 row(s) affected Records: 20 Duplicates: 0 Warnin...	0.109 sec

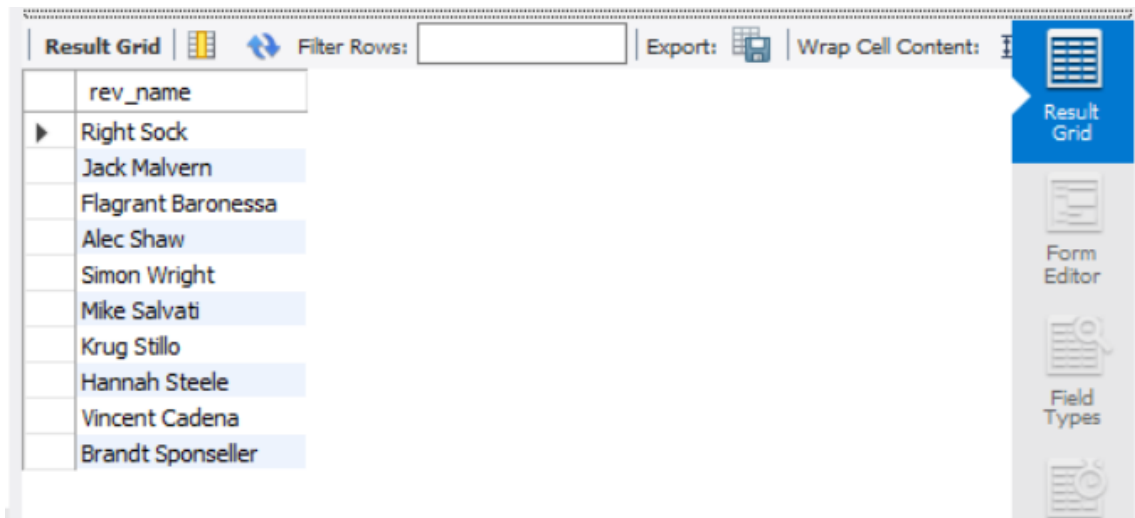3. Write a query in SQL to list the Horror movies?

```
select movie.mov_title
from movie,movie_genres,genres
where movie.mov_id=movie_genres.mov_id
and  genres.gen_id=movie_genres.gen_id
and genres.gen_title="Horror";
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

mov_title
The Innocents

Result Grid

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;

rev_name
Right Sock
Jack Malvern
Flagrant Baronessa
Alec Shaw
Simon Wright
Mike Salvati
Krug Stillo
Hannah Steele
Vincent Cadena
Brandt Sponseller

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'
));

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
    from director
    where dir_id in (
    select dir_id
    from movie_direction
    where mov_id in(
    select mov_id
    from movie_cast where role = any (
    select role
    from movie_cast
    where mov_id in (
    select mov_id
    from movie
    where mov_title='Eyes Wide Shut'))));

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";

mov_title	mov_year	mov_dt_rel	dir_fname	dir_lname	act_fname	act_lname
Chinatown	1974	1974-08-09	Roman	Polanski	Jack	Nicholson