1. **Create Database project\_movie\_data and deploy table data according to ER diagram.**

create database project\_movie\_data;

use project\_movie\_data;

1. **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 primary key auto\_increment,act\_fname varchar(45),

act\_lname varchar(45),act\_gender enum('M','F'))auto\_increment=101;

create table director(dir\_id int primary key auto\_increment,

dir\_fname varchar(45),dir\_lname varchar(45))auto\_increment=201;

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(act\_id) references actor(act\_id),

foreign key(mov\_id) references movie(mov\_id));

create table movie(mov\_id int primary key auto\_increment,

mov\_title varchar(50),mov\_year int not null,mov\_time int not null,

mov\_lang varchar(50) not null,mov\_dt\_rel date,mov\_rel\_country varchar(10))auto\_increment=901;

create table reviewer(rev\_id int primary key auto\_increment,

rev\_name varchar(30))auto\_increment=9001;

create table genres(gen\_id int primary key auto\_increment,

gen\_title varchar(20))auto\_increment=1001;

create table movie\_generes(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,foreign key(mov\_id) references movie(mov\_id),

foreign key(rev\_id) references reviewer(rev\_id) );

INSERT INTO director(dir\_fname,dir\_lname)

values('Alfred','Hitchcock'),('Jack','Clayton'),('David','Lean'),('Michael','Cimino'),('Milos','Forman'),

('Ridley','Scott'),('Stanley','Kubrick'),('Bryan','Singer'),('Roman','olanski'),('Paul','Thomas Anderson'),

('Woody','Allen'),('Hayao','Miyazaki'),('Frank','Darabont'),('Sam','Mendes'),('James','Cameron'),

('Gus',' Van Sant'),('John',' Boorman'),('Danny','Boyle'),('Christopher','Nolan'),('Richard','Kelly'),

('Kevin','Spacey'),('Andrei','Tarkovsky'),('Peter','Jackson');

insert into movie(mov\_title,mov\_year,mov\_time,mov\_lang,mov\_dt\_rel,mov\_rel\_country)

values('Vertigo',1958,128,'English','1958-08-24','UK'),('The Innocents',1961,100,'English','1962-02-19','SW'),

('Lawrence of Arabia',1962,216,'English','1962-12-11','UK'),('The Deer Hunter',1978,183,'English','1979-03-08','UK'),

('Amadeus',1984,160,'English','1985-01-07','UK'),('Blade Runner',1982,117,'English','1982-09-09','UK'),

('Eyes Wide Shut',1999,159,'English',null,'UK'),('The Usual Suspects',1995,106,'English','1995-08-09','UK'),

('Chinatown',1974,130,'English','1974-08-09','UK'),('Boogie Nights',1997,155,'English','1998-02-16','UK'),

('Annie Hall',1977,93,'English','1977-04-20','USA'),('Princess Mononoke',1997,134,'Japanese','2001-10-19','UK'),

('The Shawshank Redemption','1994','142','English',' 1995-02-17','UK'),

('American Beauty',1999,122,'English',null,'UK'),('Titanic',1997,194,'English','1998-01-23','UK'),

('Good Will Hunting',1997,126,'English','1998-06-03','UK'),('Deliverance',1972,109,'English','1982-10-05','UK'),

('Trainspotting',1996,94,'English','1996-02-23','UK'),('The Prestige',2006,130,'English','2006-11-10','UK'),

('Donnie Darko',2001,113,'English',null,'UK'),('Slumdog Millionaire',2008,120,'English','2009-01-09','UK'),

('Aliens',1986,137,'English','1986-08-29','UK'),('Beyond the Sea',2004,118,'English','2004-11-26','UK'),

('Avatar',2009,162,'English','2009-12-17','UK'),('Seven Samurai',1954,207,'Japanese','1954-04-26','JP'),

('Spirited Away',2001,125,'Japanese','2003-09-12','UK'),('Back to the Future',1985,116,'English','1985-12-04','UK'),

('Braveheart',1995,178,'English','1995-09-08','UK');

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 genres(gen\_title)

values('Action'),('Adventure'),('Animation'),('Biography'),('Comedy'),('Crime'),

('Drama'),('Horror'),('Music'),('Mystery'),('Romance'),('Thriller'),('War');

insert into actor(act\_fname,act\_lname,act\_gender)

values('James','Stewart','M'),('Deborah','Kerr','F'),('Peter','Otoole','M'),('Robert','DeNiro','M'),

('F.Murray','Abraham','M'),('Harrison','Ford','M'),('Nicole','Kidman','F'),('Stephen','Baldwin','M'),

('Jack','Nicholson','M'),('Mark','Wahlberg','M'),('Woody','Allen','M'),('Claire','Danes','F'),('Tim','Robbins','M'),

('jon','Voight','M'),('Kevin','Spacey','M'),('Kate','Winslet','F'),('Robin','Robbins','M'),('Ewan','McGregor','M'),

('Christian','Bale','M'),('Maggie','Gyllenhaal','F'),('Dev','Patel','M'),('Sigourney','Weaver','F'),

('David','Aston','M'),('Ali','Astin','F');

insert into movie\_cast(act\_id,mov\_id,role)

values(101,901,'John Scottie Ferguson'),(102,902,'Miss Giddens'),(103,903,'T.F.Lawrence'),(104,904,'Michael'),

(105,905,'Antonia 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 Dulresne'),(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 reviewer(rev\_name)

values('Righty sock'),('Jack Malven'),('Flagrant Malvern'),('Alec Shaw'),(null),

('Victor Woeltjen'),('Simon Wright'),('Neal Wruck'),('Paul Monks'),('Mike Salvati'),(null),

('Weasly S.Walker'),('Sasha Goldshtein'),('Josh Cates'),('Krug Stillo'),('Scott LeBrun'),('Hannah Steele'),

('Vincent Cadena'),('Brandt Sponseller'),('Richard Adams');

insert into movie\_generes(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),(914,1011),(906,1012),(904,1013);

insert into rating(mov\_id,rev\_id,rev\_stars,num\_o\_ratings)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),(915,9001,7.7,830095),

(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);

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

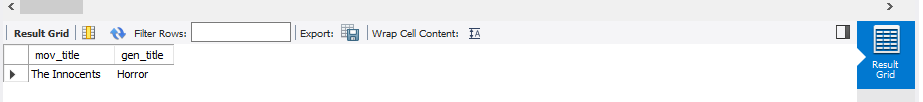
select mov\_title,gen\_title from movie

inner join movie\_generes on movie.mov\_id=movie\_generes.mov\_id

inner join genres on genres.gen\_id=movie\_generes.gen\_id

where genres.gen\_title='Horror';

**Output:-**



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

select rev\_name,rev\_stars from reviewer

inner join rating on reviewer.rev\_id=rating.rev\_id

where rev\_stars>=8;

**Output:-**

****

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

select act\_fname,act\_lname,act\_gender,mov\_title from actor

inner join movie\_cast on actor.act\_id=movie\_cast.act\_id

inner join movie on movie\_cast.mov\_id=movie.mov\_id

where movie.mov\_title='Deliverance';

**Output:-**

ms5.PNG

1. **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 distinct dir\_fname,dir\_lname from director

natural join movie\_direction

natural join movie\_cast

where act\_id in

(select act\_id from movie

natural join movie\_cast

natural join actor

where role is not null

and mov\_title='Eyes Wide Shut');

**Output:-**

ms6.PNG

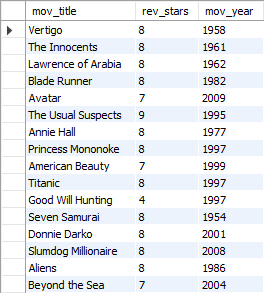
**8. Write a query in SQL to find all the years which produced at least one movie and that received a rating of more than 4 stars.**

select mov\_title,rev\_stars,mov\_year from movie

inner join rating on movie.mov\_id=rating.mov\_id

where rev\_stars>=4;

**Output:-**

****

**10. Write a query in SQL to find the name of movies who were directed by ‘David’**

select mov\_title,dir\_fname,dir\_lname from movie

inner join movie\_direction on movie.mov\_id=movie\_direction.mov\_id

inner join director on movie\_direction.dir\_id=director.dir\_id

where director.dir\_fname='David' or director.dir\_lname='David';

**Output:-**

ms10.PNG

**11. Write a query in SQL to list the first and last names of all the actors who were cast in the movie ‘Boogie Nights’, and the roles they played in that production.**

select act\_fname,act\_lname,mov\_title,role from actor

inner join movie\_cast on actor.act\_id=movie\_cast.act\_id

inner join movie on movie\_cast.mov\_id=movie.mov\_id

where movie.mov\_title='Boogie Nights';

**Output:-**

ms11.PNG

**12. Find the name of the actor who have worked in more than one movie.**

select mov\_title,act\_fname,act\_lname,role

from movie

join movie\_cast

on movie\_cast.mov\_id=movie.mov\_id

join actor

on movie\_cast.act\_id=actor.act\_id

where actor.act\_id in (

select act\_id from movie\_cast

group by act\_id

having count(\*)>1);

**Output:-**

