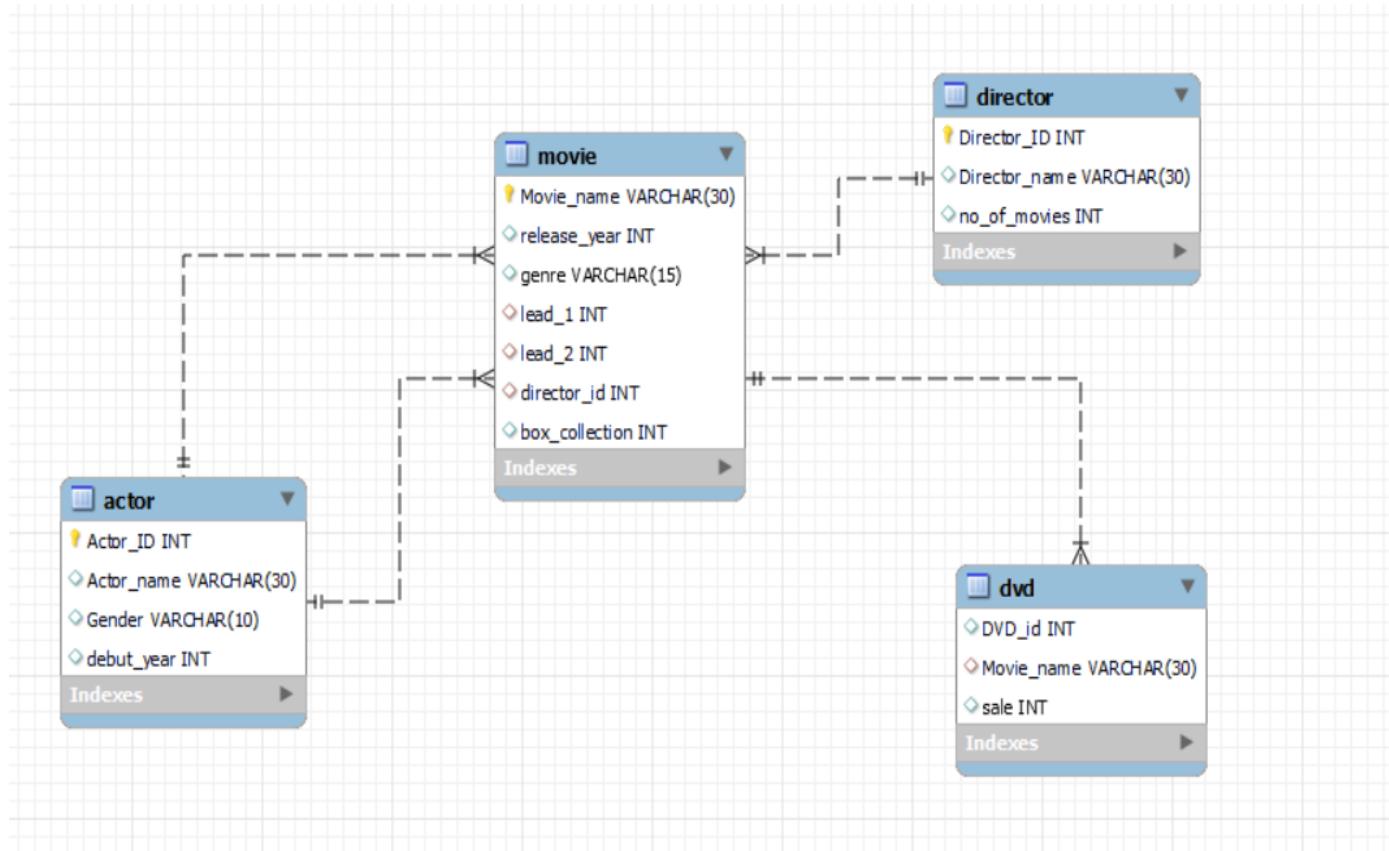


SQL Group By assignment

Database Schema



Initial queries for database, table creation and inserting values

Create and use database

```
create database grpby;
use grpby;
```

Create Tables

```
CREATE TABLE Actor(Actor_ID int,Actor_name varchar(30),Gender
varchar(10),debut_year int);

CREATE TABLE Director(Director_ID int,Director_name
varchar(30),no_of_movies int);

CREATE TABLE Movie(Movie_name varchar(30),release_year int,genre
varchar(15),lead_1 int,lead_2 int,director_id int,box_collection int );

CREATE TABLE DVD(DVD_id int,Movie_name varchar(30),sale int);
```

Inserting Values

```
insert into actor values(1, 'Aamir Khan', 'male', 1988);
insert into actor values(2, 'Shahrukh Khan', 'male', 1992);
insert into actor values(3, 'Kareena Kapoor', 'female', 2000);
insert into actor values(4, 'Kajol', 'female', 1992);
insert into actor values(5, 'Anushka Sharma', 'female', 2008);
insert into actor values(6, 'Ranbir Kapoor', 'male', 2007);
insert into actor values(7, 'Alia Bhatt', 'female', 2012);
insert into actor values(8, 'Ranveer Singh', 'male', 2010);
insert into actor values(9, 'Deepika Padukone', 'female', 2006);
insert into actor values(10, 'Shahid Kapoor', 'male', 2003);
insert into actor values(11, 'Katrina Kaif', 'female', 2003);
insert into actor values(12, 'Varun Dhawan', 'male', 2012);

insert into director values(1, 'Rajkumar Hirani', 10);
insert into director values(2, 'Sanjay Leela Bhansali', 8);
insert into director values(3, 'Aditya Chopra', 6);
insert into director values(4, 'Zoya Akhtar', 3);
insert into director values(5, 'Imtiaz Ali', 5);
insert into director values(6, 'Ayan Mukerji', 4);
insert into director values(7, 'Santosh Sivan', 9);
insert into director values(8, 'Farah Khan', 4);

insert into movie values('3 Idiots', 2009, 'comedy', 1, 3, 1, 989600000);
insert into movie values('PK', 2014, 'satire', 1, 5, 1, 789600000);
insert into movie values('Bajirao Mastani', 2015, 'historic', 8, 9, 2, 68960000);
insert into movie values('Rab ne bana di jodi', 2008, 'romance', 2, 5, 3, 48960000);

insert into movie values('Gully boy', 2019, 'Musical drama', 8, 7, 4, 28950000);
insert into movie values('Jab we met', 2007, 'romance', 10, 3, 5, 18980000);
insert into movie values('Padmavat', 2018, 'historic', 8, 9, 2, 38460000);
insert into movie values('Yeh jawani hai deewani', 2013, 'romance', 6, 9, 6, 581600000);

insert into movie values('Ashoka', 2001, 'historic', 2, 3, 7, 8796000);
insert into movie values('Happy new year', 2014, 'comedy', 2, 9, 8, 68960000);

insert into DVD values(1, '3 Idiots', 8890);
insert into DVD values(2, 'PK', 8790);
```

```
insert into DVD values(3, 'Bajirao Mastani', 6810);
insert into DVD values(4, 'Rab ne bana di jodi', 7920);
insert into DVD values(5, 'Gully boy', 870);
insert into DVD values(6, 'Jab we met', 4792);
insert into DVD values(7, 'Padmavat', 590);
insert into DVD values(8, 'Yeh jawani hai deewani', 2890);
insert into DVD values(9, 'Ashoka', 730);
insert into DVD values(10, 'Happy new year', 1690);
```

Assignment Questions

Q1. Display the count of actors and actresses.

```
select gender, count(gender) as number
from actor
group by gender;
```

Output:-

	gender	number
1	female	6
2	male	6

Q2. Display the count of movies of each genre.

```
select genre, count(genre) as count
from movie
group by genre;
```

Output:-

	genre	count
1	comedy	2
2	historic	3
3	Musical drama	1
4	romance	3
5	satire	1

Q3. Calculate the oldest released movie of each genre.

```
select genre, min(release_year) as 'oldest release'  
from movie  
group by genre;
```

Output:-

	genre	oldest release
1	comedy	2009
2	historic	2001
3	Musical drama	2019
4	romance	2007
5	satire	2014

Q4. Calculate the total box office collection for movies of each genre.

```
select genre,sum(box_collection) as 'total box office  
collection'  
from movie  
group by genre;
```

Output :-

	genre	total box office collection
1	comedy	1058560000
2	historic	116216000
3	Musical drama	28950000
4	romance	649540000
5	satire	789600000

Q5. Display the name of director, current count of movies and total count of movies directed by him/her.

Output :-

```
select d.Director_name,  
count(m.Movie_name) as 'current count',  
d.no_of_movies as 'total count'  
from director as d  
left join movie as m  
on d.Director_id=m.director_id  
group by  
d.Director_ID,d.Director_name,d.no_of_movies;
```

	director_name	current count	total count
1	Rajkumar Hirani	2	10
2	Sanjay Leela Bhansali	2	8
3	Aditya Chopra	1	6
4	Zoya Akhtar	1	3
5	Imtiaz Ali	1	5
6	Ayan Mukerji	1	4
7	Santosh Sivan	1	9
8	Farah Khan	1	4

Q6. Display the name of lead_1 actors, their count of movies and their total DVD sales.

```

select m.lead_1,
count(m.Movie_name) as 'no.of.movies',
sum(d.sale) as 'total sales'
from actor as a
left join movie as m
on a.Actor_ID=m.lead_1
left join DVD as d
on m.Movie_name=d.Movie_name
where m.Movie_name is not null
group by m.lead_1;

```

Output:-

	lead_1	no. of movies	total sales
1	1	2	17680
2	2	3	10340
3	6	1	2890
4	8	3	8270
5	10	1	4792

Q7. Show the release year and number of movies released in each year only if

more than 1 movie is released each year.

```
select release_year,
       count(Movie_name) as 'no. of movies'
  from movie
 group by release_year
 having count(Movie_name)>1;
```

Output :-

	release_year	no. of movies
1	2014	2

Q8. Display the director name and their total box office collection which should be greater than 50 crores.

```
select d.Director_name,
       sum(m.box_collection) as 'total box office collection'
  from director as d
 left join movie as m
    on d.Director_ID=m.director_id
```

```
group by d.Director_name  
having sum(m.box_collection)>500000000;
```

Output:-

	director_name	total box collection
1	Rajkumar Hirani	1779200000
2	Ayan Mukerji	581600000

Q9. Give the count of movies of each genre in decreasing order of count.

```
select genre,count(Movie_name) as 'count of movie'  
from movie  
group by genre  
order by count(Movie_name) desc;
```

Output:-

	genre	count of movie
1	historic	3
2	romance	3
3	comedy	2
4	satire	1
5	Musical drama	1

Q10. Sort the movie names based on director names.

Output:-

```
select d.Director_name,m.Movie_name
```

from director as d

left join movie as m

on d.Director_ID=m.director_id

group by d.Director_name,m.Movie_name

order by d.Director_name;

	director_name	movie_name
1	Aditya Chopra	Rab ne bana di jodi
2	Ayan Mukerji	Yeh jawani hai deewani
3	Farah Khan	Happy new year
4	Imtiaz Ali	Jab we met
5	Rajkumar Hirani	3 Idiots
6	Rajkumar Hirani	PK
7	Sanjay Leela Bhansali	Bajirao Mastani
8	Sanjay Leela Bhansali	Padmavat
9	Santosh Sivan	Ashoka
10	Zoya Akhtar	Gully boy