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1BM19CS230

CSE-4A

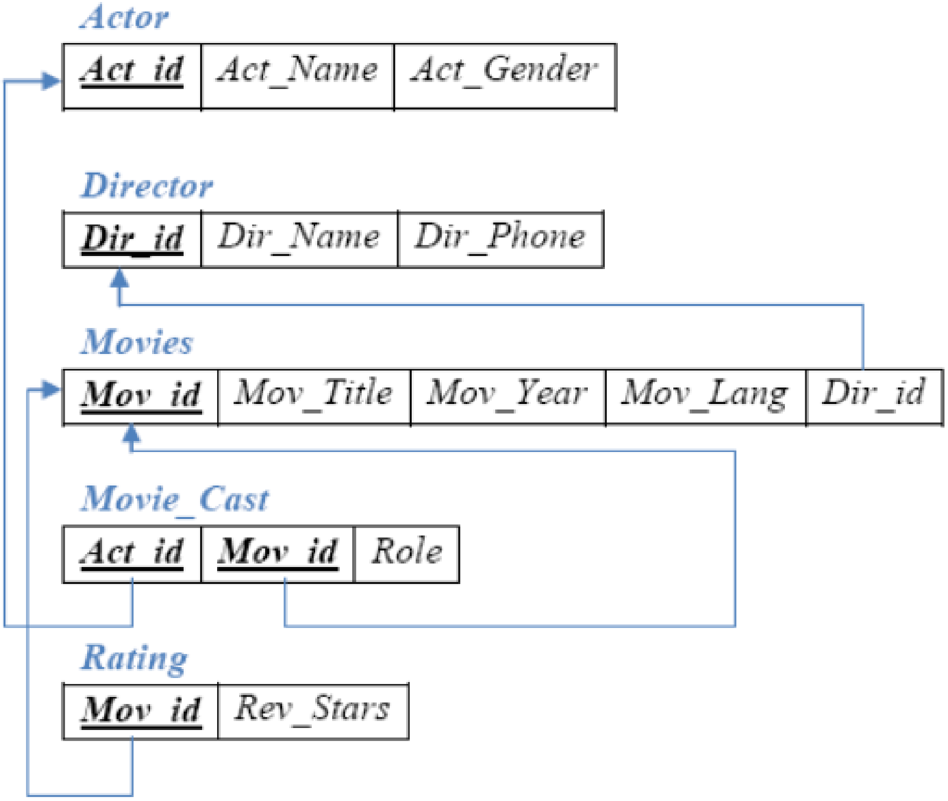
Program 9 - Movies Database

Consider the schema for Movie Database:

ACTOR (*Act_id, Act_Name, Act_Gender*)
DIRECTOR (*Dir_id, Dir_Name, Dir_Phone*)
MOVIES (*Mov_id, Mov_Title, Mov_Year, Mov_Lang, Dir_id*)
MOVIE_CAST (*Act_id, Mov_id, Role*)
RATING (*Mov_id, Rev_Stars*)
Write SQL queries to

1. List the titles of all movies directed by 'Hitchcock'.
2. Find the movie names where one or more actors acted in two or more movies.
3. List all actors who acted in a movie before 2000 and also in a movie after 2015 (use JOIN operation).
4. Find the title of movies and number of stars for each movie that has at least one rating and find the highest number of stars that movie received. Sort the result by movie title.
5. Update rating of all movies directed by 'Steven Spielberg' to 5.

Schema Diagram



Actor

Act_id | Act_Name | Act_Gender

Director

Dir_id | Dir_Name | Dir_Phone

Movies

Mov_id | Mov_Title | Mov_Year | Mov_Lang | Dir_id

Movie_Cast

Act_id | Mov_id | Role

Rating

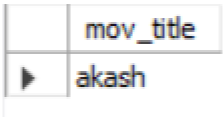
Mov_id | Rev_Stars

```
create database moviesDB;
use moviesDB;

create table Actor(
	act_id int not null,
	act_name varchar(20) not null,
	act_gender varchar(1) not null,
	primary key(act_id)
);

create table Director(
	dir_id int not null,
	dir_name varchar(20) not null,
	dir_phone varchar(10) not null,
    primary key(dir_id)
);

create table Movies(
    mov_id int not null,
    mov_title varchar(20) not null,
    mov_year year not null,
    mov_lang varchar(20) not null,
    dir_id int,
    primary key(mov_id),
    foreign key(dir_id) references Director(dir_id) on delete cascade
);

create table MovieCast(
    act_id int not null,
    mov_id int not null,
    role varchar(20) not null,
    primary key(act_id,mov_id),
    foreign key(act_id) references Actor(act_id) on delete cascade,
    foreign key(mov_id) references Movies(mov_id) on delete cascade
);

create table Rating(
    mov_id int not null,
    rev_stars int not null,
    primary key(mov_id),
    foreign key(mov_id) references Movies(mov_id) on delete cascade
);


insert into Actor(act_id,act_name,act_gender)
    values(301,'Anushka','F'),
        (302,'Prabhas','M'),
        (303,'Punith','M'),
        (304,'Jermy','M');
```

```
insert into Director(dir_id,dir_name,dir_phone)
        values(60,'Rajamouli','8751611001'),
                (61,'Hitchcock','7766138911'),
                (62,'Faran',9986776531),
                (63,'Steven Spielberg',8989776530);

insert into Movies(mov_id,mov_title,mov_year,mov_lang,dir_id)
        values(1001,'baahubali 2','2017','Telugu',60),
                (1002,'baahubali 1','2015','Telugu',60),
                (1003,'akash','2008','Kannada',61),
                (1004,'war horse','2011','English',63);

insert into MovieCast(act_id,mov_id,role)
        values(301,1002,'Heroine'),
                (301,1001,'Heroine'),
                (303,1003,'Hero'),
                (303,1002,'Guest'),
                (304,1004,'Hero');

insert into Rating(mov_id,rev_stars)
        values(1001,4),
                (1002,2),
                (1003,5),
                (1004,4);
```

-- List the titles of all movies directed by ‘Hitchcock’.

```
select mov_title from Movies,Director
where Movies.dir_id = Director.dir_id and dir_name like 'Hitchcock';
```

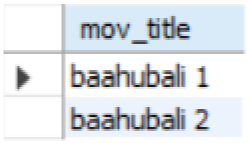


	mov_title
▶	akash

-- Find the movie names where one or more actors acted in two or more movies.

```
select distinct m.mov_title from Movies m,MovieCast mc
```

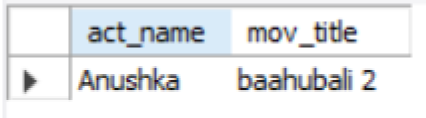
```
where m.mov_id = mc.mov_id
group by mc.act_id having count(mc.mov_id) >= 2;
```



mov_title
baahubali 1
baahubali 2

-- List all actors who acted in a movie before 2000 and also in a movie after 2015 (use JOIN operation).

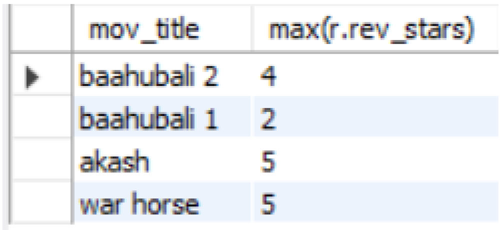
```
select a.act_name,m.mov_title from Actor a,Movies m,MovieCast mc
where m.mov_id = mc.mov_id and a.act_id = mc.act_id
and m.mov_year not between '2000' and '2015';
```



act_name	mov_title
Anushka	baahubali 2

-- Find the title of movies and number of stars for each movie that has at least one rating and find the highest number of stars that movie received. Sort the result by movie title.

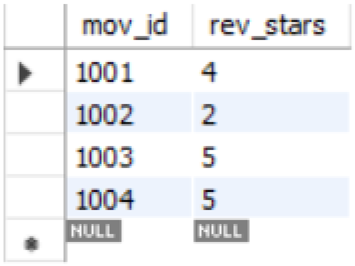
```
select m.mov_title,max(r.rev_stars) from Movies m,Rating r
where m.mov_id = r.mov_id group by r.mov_id;
```



mov_title	max(r.rev_stars)
baahubali 2	4
baahubali 1	2
akash	5
war horse	5

-- Update rating of all movies directed by 'Steven Spielberg' to 5.

```
update Rating
set rev_stars = 5
where mov_id = (select mov_id from Movies where dir_id = (select dir_id from Director
where dir_name = 'Steven Spielberg'));

select * from Rating;
```



	mov_id	rev_stars
▶	1001	4
	1002	2
	1003	5
	1004	5
*	NULL	NULL