```
create view vlocation as(select * from pratip_Movie natural join
pratip_M_Location natural join pratip_Location);
create view vlanguage as(select * from pratip_Movie natural join
pratip_M_Language natural join pratip_Language);
create view vcast as(select * from pratip_Movie natural join
pratip_M_Cast natural join pratip_Person);
create view vproducer as(select * from pratip_Movie natural join
pratip_M_Producer natural join pratip_Person);
create view vdirector as(select * from pratip_Movie natural join
pratip_M_Director natural join pratip_Person);
create view vgenre as(select * from pratip_Movie natural join
pratip_M_Genre natural join pratip_Genre);
```

1. Query set - 1..

(a) List all the directors who directed a ’Comedy’ movie in a leap year. (You need to check that the genre is ’Comedy’ and year is divisible by 4.) Your query should return director name, the movie name, and the year.

```
select distinct Name from vdirector where MID in (select distinct
MID from vgenre where Name = 'Comedy' and year % 4 = 0);
```

(b) List the names of all the actors who played in the movie ’Anand’ (1971).

```
select distinct Name from vcast where title = 'Anand' and year =
1971;
```

(c) List all the actors who acted in a film before 1970 and also in a film after 1990. (That is: < 1970 and > 1990.)

```
select distinct Name from vcast where year < 1970 and PID in
(select PID from vcast where year > 1990);
```

(d) List all directors who directed 10 movies or more, in descending order of the number of movies they directed. Return the directors’ names and the number of movies each of them directed.

```
select distinct Name , count(*) as no_of_movies from vdirector
group by Name having no_of_movies > 10 order by no_of_movies desc;
```

(e)

i. For each year, count the number of movies in that year that had only female actors.

```
1) create view fem as(select distinct title,year from vcast as T
where not exists (select PID from vcast as S where S.MID=T.MID and PID
not in(select PID from vcast as P where P.MID=S.MID and
P.Gender='female')));
2)select distinct S.year,(select count(*) from fem where year =
S.year) as no_of_movies from pratip_Movie as S;
```

ii. Now include a small change: report for each year the percentage of movies in that year with only

female actors, and also the total number of movies made that year. For example, one answer
will be: 1990 31.81 13522

1)create view fem as(select distinct title,year from vcast as T where not exists (select PID from vcast as S where S.MID=T.MID and PID not in(select PID from vcast as P where P.MID=S.MID and P.Gender='female')));
2)select year ,no_of_movies*100/no as percentage, no as no_of_movies_in_that_year from (select S.year,count(*) as no,(select count(*) from fem where year = S.year) as no_of_movies from pratip_Movie as S group by year) as a;

meaning that in 1990 there were 13,522 movies, and 31.81need to round your answer.
(f) Find the film(s) with the largest cast. Return the movie title and the size of the cast. By ”cast size”
we mean the number of distinct actors that played in that movie: if an actor played multiple roles,
or if it simply occurs multiple times in casts we still count her/him only once.
1)create view cs1 as(select MID,title,Name from vcast);
2)create view cs as (select title,count(*) as cast_size from cs1 group by title);
3)select title,cast_size from cs where cast_size in (select max(cast_size)from cs);

(g) A decade is a sequence of 10 consecutive years. For example say in your database you have movie
information starting from 1965. Then the first decade is 1965, 1966, ..., 1974; the second one is 1967,
1968, ..., 1976 and so on. Find the decade D with the largest number of films and the total number
of films in D.
1)create view ye as (select distinct year as year1,year+10 as year2,(select count(*) from pratip_Movie where year between year1 and year2) as a from pratip_Movie);
2)select year1 as year_start,year2 as year_end ,a as no_of_movies from ye where a in (select max(a) from ye);

(h) Find the actors that were never unemployed for more than 3 years at a stretch. (Assume that the
actors remain unemployed between two consecutive movies).
1)create view unemploy as (select distinct P.PID from pratip_Movie M natural join pratip_M_Cast natural join pratip_Person P where not exists(select * from pratip_M_Cast natural join pratip_Movie where PID = P.PID and year > M.year and year < M.year + 4) and exists(select * from pratip_M_Cast natural join pratip_Movie where PID = P.PID and year >= M.year + 4));
2)select distinct PID, Name from pratip_M_Cast natural join pratip_Person where PID not in (select PID from unemploy);

(i) Find all the actors that made more movies with Yash Chopra than any other director.
1)create view yash as (select Name ,PID, count(*) as no_of_movies from vcast where MID in (select MID from vdirector where Name = 'Yash Chopra') group by PID);
2)create view yash_cast as(select distinct PID from vcast where MID in (select MID from vdirector where Name = 'Yash Chopra'));

3)create view cast_dir as(select S.PID as cast_pid,S.Name as cast_name,T.Name as dir_name,count(*) as no_of_movies from vcast as S,vdirector as T where S.PID in (select PID from yash_cast) and S.MID = T.MID group by S.PID,T.PID order by no_of_movies desc);

4)select distinct Name from yash where PID not in (select S.cast_pid from cast_dir as S,yash as T where S.cast_pid = T.PID and S.dir_name != 'Yash Chopra' and S.no_of_movies > T.no_of_movies);

(j) The Shahrukh number of an actor is the length of the shortest path between the actor and Shahrukh
Khan in the ”co-acting” graph. That is, Shahrukh Khan has Shahrukh number 0; all actors who
acted in the same film as Shahrukh have Shahrukh number 1; all actors who acted in the same
film as some actor with Shahrukh number 1 have Shahrukh number 2, etc. Return all actors whose
Shahrukh number is 2.

1)create view srk1 as (select distinct PID from vcast where MID in(select MID from vcast where Name = 'Shah Rukh Khan'));

2)create view srk2 as (select MID from vcast where PID in(select distinct PID from srk1));

3)select distinct PID,Name from vcast where MID in (select MID from srk2) and PID not in (select PID from srk1);

2. Query set - 2..

(a) List the title of 1970 films by order of cast list size.

select title,cast_size from (select title,year,count(*) as cast_size from vcast group by MID) as a where year = 1970 order by cast_size desc;

(b) List the name of actors featured in at least 13 films released after 1990.

select Name from (select distinct Name ,count(*) as no_of_movies from(select * from vcast where year >1990) as a group by PID having no_of_movies > 13) as d;

(c) List the name pair of actors who have worked together in more than 10 films.

select S.Name ,T.Name ,count(*) as no_of_movies from vcast as S,vcast as T where S.MID = T.MID and S.PID != T.PID group by S.PID,T.PID having no_of_movies > 10 and strcmp(S.Name,T.Name) =1;

(d) List the title pair of movies which have the same lead star actor. Restrict result to movies with
names starting with ’A’ or ’S’.

1)create view sa as (select * from vcast where title like 'A%' or title like 'S%' group by MID);

2)select S.title,T.title from sa as S , sa as T where S.MID != T.MID and S.Name = T.Name;

(e) Which were the busiest years for ’Amitabh Bachhan’. Busiest means that the actor performed in the
maximum number of movies.

1)create view amit as(select year,count(*)as no_of_movies from vcast where Name like 'Amitabh Bachchan' group by year);

2)select year from amit where no_of_movies in (select max(no_of_movies) from amit);

(f) List the name of all actors who have worked with ’Om Puri’.

```
      select distinct Name from vcast where MID in(select MID from vcast
where Name = 'Om Puri') and Name != 'Om Puri';

(g) List the actor who has done the maximum number of movies from a
      (a) single director and
            1) create view vdir as (select count(*)as no_of_movies from
vcast as S,vdirector as T where S.MID = T.MID group by S.PID,T.PID order
by no_of_movies desc limit 1);
            2)select S.Name from vcast as S,vdirector as T where S.MID =
T.MID group by S.PID,T.PID having count(*) in (select no_of_movies from
vdir);

      (b) a single production house.
            1)create view vpro as (select count(*)as no_of_movies from
vcast as S,vproducer as T where S.MID = T.MID group by S.PID,T.PID order
by no_of_movies desc limit 1);
            2)select S.Name from vcast as S,vproducer as T where S.MID =
T.MID group by S.PID,T.PID having count(*) in (select no_of_movies from
vpro);

(h) List names of actors who acted in every movie with titles starting
with 'Dhoom'.
      select distinct S.Name from pratip_Person as S where not exists(
select distinct title from pratip_Movie where title like 'Dhoom%' and
title not in (select distinct title from vcast where Name = S.Name));
```