EXPERIMENT 5: MOVIE 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)

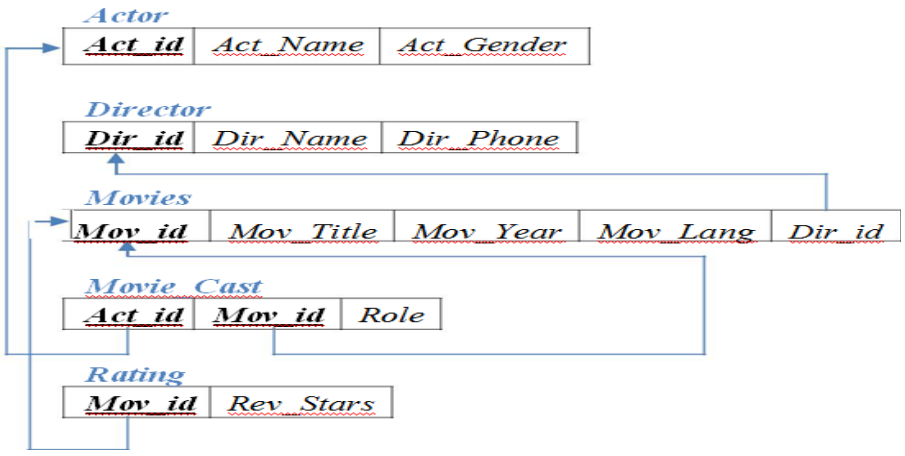
MOVIE_CAST (Act_id,Mov_id, Role)

RATING (Mov_id, Rev_Stars)

Write SQL queries to

1. **List the titles of all movies directed by 'Sanjay Leela Bansali'.**
2. **Find the movie names where one or more actors acted in two or more movies.**
3. **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.**
4. **Update rating of all movies directed by 'Ram Gopal Verma'to 5.**

Solution:



CREATE TABLE STATEMENTS

```
CREATE TABLE ACTOR
 (
        ACT_ID NUMBER (3) PRIMARY KEY,
        ACT_NAME VARCHAR (20),
        ACT_GENDER CHAR (1),
);
CREATE TABLE DIRECTOR
(
        DIR_ID NUMBER (3) PRIMARY KEY,
        DIR_NAME VARCHAR (20),
        DIR_PHONE NUMBER (10),
);
CREATE TABLE MOVIES
(
        MOV_ID NUMBER (4),
        MOV_TITLE VARCHAR (25),
        MOV_YEAR NUMBER (4),
        MOV_LANG VARCHAR (12),
        DIR_ID NUMBER (3),
        PRIMARY KEY (MOV_ID),
        FOREIGN KEY (DIR_ID) REFERENCES DIRECTOR (DIR_ID)
);
CREATE TABLE MOVIE_CAST
(
        ACT_ID NUMBER (3),
        MOV_ID NUMBER (4),
        ROLE VARCHAR (10),
        PRIMARY KEY (ACT_ID, MOV_ID),
        FOREIGN KEY (ACT_ID) REFERENCES ACTOR (ACT_ID),
        FOREIGN KEY (MOV_ID) REFERENCES MOVIES (MOV_ID)
);
CREATE TABLE RATING
 (
        MOV_ID NUMBER (4),
```

```
    REV_STARS VARCHAR (25),
    PRIMARY KEY (MOV_ID),
    FOREIGN KEY (MOV_ID) REFERENCES MOVIES (MOV_ID)
);
```

QUERIES

1. List the titles of all movies directed by ‘Sanjay Leela Bansali’.

```
SELECT MOV_TITLE
FROM MOVIES
WHERE DIR_ID IN (SELECT DIR_ID
FROM DIRECTOR
WHERE DIR_NAME = _SANJAY LELA BANSALI‘);
```

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

```
SELECT MOV_TITLE
FROM MOVIES M, MOVIE_CAST MV
WHERE M.MOV_ID=MV.MOV_ID AND ACT_ID IN (SELECT ACT_ID FROM MOVIE_CAST
GROUP BY ACT_ID HAVING COUNT (ACT_ID)>1)
GROUP BY MOV_TITLE
HAVING COUNT (*)>1;
```

3. 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 MOV_TITLE, MAX (REV_STARS)
FROM MOVIES
INNER JOIN RATING USING (MOV_ID)
GROUP BY MOV_TITLE
HAVING MAX (REV_STARS)>0
ORDER BY MOV_TITLE;
```

4. Update rating of all movies directed by ‘Ram GopalVerma’ to 5

```
UPDATE RATING SET REV_STARS=5
WHERE MOV_ID IN (SELECT MOV_ID FROM MOVIES
```

```
WHERE DIR_ID IN
(SELECT DIR_ID
FROM DIRECTOR
WHERE  DIR_NAME =
_RGV‘));
```

Learning Outcome of the Experiment

At the end of the session, students should be able to :

3. Design a Schema Diagram for a given application scenario [L4, CO 2, PO3]

5. Construct the database and Demonstrate the execution of Queries. [L5, CO 2, PO4]

Conclusions : The students learned the procedure to map the given scenerio to get the final Relational Schema. The entire Database complete in all respects is then used to create the database in Oracle 10g, populate them and test some queries.

Actor

Act_id	Act_Name	Act_Gender
1	Akshay Kumar	M
2	Salman Khan	M
3	Alia Bhat	F
4	Katrina Kaif	F
5	SRK	M

Director

Dir_id	Dir_Name	Dir_Phone
1	SLB	
2	RGV	
3	KJO	
4	Aditya Chopra	
5	Prabhu Deva	
6	Raghava L	
7	Jagan Shakti	
8	Tinu Desai	

Movies

Mov_id	Mov_Title	Mov_Year	Mov_Lang	Dir_id
1	Devdas		Hindi	1
2	Radhe		Hindi	5
3	DDLJ			4
4	Laxmi Bomb			6
5	Mission Mangal			7
6	Rustom			8

Movie_Cast

Actor_id	Movie_id	Role
1	4	Lead
1	5	
1	6	
2	2	
3	1	
3	3	

Rating

Mov_id	Rev_Stars
1	4
2	3
3	5
4	4
5	3
6	3