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MOVIE DATABASE

```
CREATE DATABASE MOVIE;

CREATE TABLE ACTOR(
    ACT_ID INT NOT NULL,
    ACT_NAME VARCHAR(20) NOT NULL,
    ACT_GENDER CHAR(7) NOT NULL,
    PRIMARY KEY(ACT_ID)
    );

    CREATE TABLE DIRECTOR(
        DIR_ID INT NOT NULL,
        DIR_NAME INT NOT NULL,
        DIR_PHONE INT 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 NOT NULL,
        PRIMARY KEY(MOV_ID),
        FOREIGN KEY(DIR_ID) REFERENCES DIRECTOR(DIR_ID) ON DELETE
CASCADE ON UPDATE CASCADE
        );

    CREATE TABLE MOVIE_CAST(
        ACT_ID INT NOT NULL,
        MOV_ID INT NOT NULL,
        ROLE VARCHAR(20) NOT NULL,
        FOREIGN KEY(ACT_ID) REFERENCES ACTOR(ACT_ID) ON DELETE
CASCADE ON UPDATE CASCADE,
        FOREIGN KEY(MOV_ID) REFERENCES MOVIES(MOV_ID) ON DELETE
CASCADE ON UPDATE CASCADE
        );

    CREATE TABLE RATING(
        MOV_ID INT NOT NULL,
        REV_STARS INT NOT NULL,
    FOREIGN KEY(MOV_ID) REFERENCES MOVIES(MOV_ID)
    );


INSERT INTO ACTOR VALUES (301,'ANUSHKA','F');
INSERT INTO ACTOR VALUES (302,'PRABHAS','M');
INSERT INTO ACTOR VALUES (303,'PUNITH','M');
INSERT INTO ACTOR VALUES (304,'JERMY','M');


ALTER TABLE DIRECTOR
DROP COLUMN DIR_PHONE;

ALTER TABLE DIRECTOR
ADD COLUMN PHONE_NO INT(11) NOT NULL;

ALTER TABLE DIRECTOR
DROP COLUMN DIR_NAME;

ALTER TABLE DIRECTOR
ADD COLUMN DIR_NAME VARCHAR(20) NOT NULL;

ALTER TABLE DIRECTOR
MODIFY COLUMN PHONE_NO BIGINT NOT NULL;

INSERT INTO DIRECTOR VALUES (60,'RAJAMOULI', 8751611001);
INSERT INTO DIRECTOR VALUES (61,'HITCHCOCK', 7766138911);
INSERT INTO DIRECTOR VALUES (62,'FARAN', 9986776531);
INSERT INTO DIRECTOR VALUES (63,'STEVEN SPIELBERG', 8989776530);

INSERT INTO MOVIES VALUES (1001,'BAHUBALI-2', 2017, '‗TELAGU', 60);
INSERT INTO MOVIES VALUES (1002,'BAHUBALI-1', 2015, '‗TELAGU', 60);
INSERT INTO MOVIES VALUES (1003,'AKASH', 2008, '‗KANNADA', 61);
INSERT INTO MOVIES VALUES (1004,'WAR HORSE', 2011, '‗ENGLISH', 63);

INSERT INTO MOVIE_CAST VALUES (301, 1002, '‗HEROINE');
INSERT INTO MOVIE_CAST VALUES (301, 1001, '‗HEROINE');
INSERT INTO MOVIE_CAST VALUES (303, 1003, '‗HERO');
INSERT INTO MOVIE_CAST VALUES (303, 1002, '‗GUEST');
INSERT INTO MOVIE_CAST VALUES (304, 1004, '‗HERO');

INSERT INTO RATING VALUES (1001, 4);
INSERT INTO RATING VALUES (1002, 2);
INSERT INTO RATING VALUES (1003, 5);
INSERT INTO RATING VALUES (1004, 4);

SELECT * FROM ACTOR


ACT_ID  ACT_NAME  ACT_GENDER
301 ANUSHKA    F
302 PRABHAS    M
303 PUNITH M
304 JERMY   M


SELECT * FROM DIRECTOR


DIR_ID  DIR_NAME   PHONE_NO
60   RAJAMOULI  8751611001
61   HITCHCOCK 7766138911
62   FARAN  9986776531
63   STEVEN SPIELBERG 8989776530

SELECT * FROM MOVIES


MOV_ID MOV_TITLE  MOV_YEAR  MOV_LANG  DIR_ID
1001     BAHUBALI-2      2017    _TELAGU      60
1002     BAHUBALI-1      2015    _TELAGU      60
1003     AKASH  2008    _KANNADA  61
1004     WAR HORSE       2011    _ENGLISH     63



SELECT * FROM MOVIE_CAST


ACT_ID  MOV_ID ROLE
301 1002    _HEROINE
301 1001    _HEROINE
303 1003    _HERO
303 1002    _GUEST
304 1004    _HERO
```

```
SELECT * FROM RATING
```

```
MOV_ID REV_STARS
1001    4
1002    2
1003    5
1004    4
```

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

```
SELECT MOV_TITLE FROM MOVIES WHERE DIR_ID = (SELECT DIR_ID FROM
DIRECTOR WHERE DIR_NAME = 'HITCHCOCK')
```

```
AKASH
```

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

```
SELECT MOV_TITLE FROM MOVIES WHERE MOV_ID IN (SELECT MOV_ID
FROM MOVIE_CAST WHERE ACT_ID IN (SELECT ACT_ID FROM MOVIE_CAST
GROUP BY ACT_ID HAVING COUNT(ACT_ID) > 1) GROUP BY MOV_ID HAVING
COUNT(MOV_ID) > 1)
```

```
BAHUBALI-1
```

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

```
INSERT INTO MOVIES VALUES
(1005,'FORREST GUMP',1995,'_ENGLISH',60);
INSERT INTO MOVIE_CAST VALUES
(301,1005,'_HEROINE');
```

APPROACH 1 WITHOUT USING JOIN:

```
SELECT ACT_NAME FROM ACTOR WHERE ACT_ID IN (SELECT ACT_ID FROM
MOVIE_CAST WHERE MOV_ID IN (SELECT MOV_ID FROM MOVIES WHERE
MOV_YEAR NOT BETWEEN '2000' AND '2015'))
```

```
ANUSHKA
```

APPROACH 2 WITH USING JOIN:

```
SELECT DISTINCT A.ACT_NAME FROM ACTOR A JOIN MOVIE_CAST M ON
A.ACT_ID = M.ACT_ID AND M.MOV_ID IN (SELECT MOV_ID FROM MOVIES WHERE
MOV_YEAR NOT BETWEEN '2000' AND '2015')
```

```
ANUSHKA
```

iv. 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 HAVING MAX(R.REV_STARS) > 0
ORDER BY M.MOV_TITLE
```

```
MOV_TITLE       MAX(R.REV_STARS)
AKASH  5
BAHUBALI-1      2
BAHUBALI-2      4
WAR HORSE       4
```

v. Update rating of all movies directed by ‘Steven Spielberg’ to 5.

```
SELECT REV_STARS FROM RATING WHERE MOV_ID IN (SELECT MOV_ID
FROM MOVIES WHERE DIR_ID = (SELECT DIR_ID FROM DIRECTOR WHERE
```

DIR_NAME = 'STEVEN SPIELBERG'))

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UPDATE RATING
SET REV_STARS = 5 WHERE MOV_ID IN (SELECT MOV_ID FROM MOVIES WHERE DIR_ID = (SELECT DIR_ID FROM DIRECTOR WHERE DIR_NAME = 'STEVEN SPIELBERG'))

SELECT REV_STARS FROM RATING WHERE MOV_ID IN (SELECT MOV_ID FROM MOVIES WHERE DIR_ID = (SELECT DIR_ID FROM DIRECTOR WHERE DIR_NAME = 'STEVEN SPIELBERG'))

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