MAHANTESH GATTINA ~ 1BM19CS219

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'))

4

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'))

**5**