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USN : 1BM19CS070
DATE : 09/06/21

DBMS LAB PROGRAM - 6

MOVIE DATABASE

QUESTION :

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

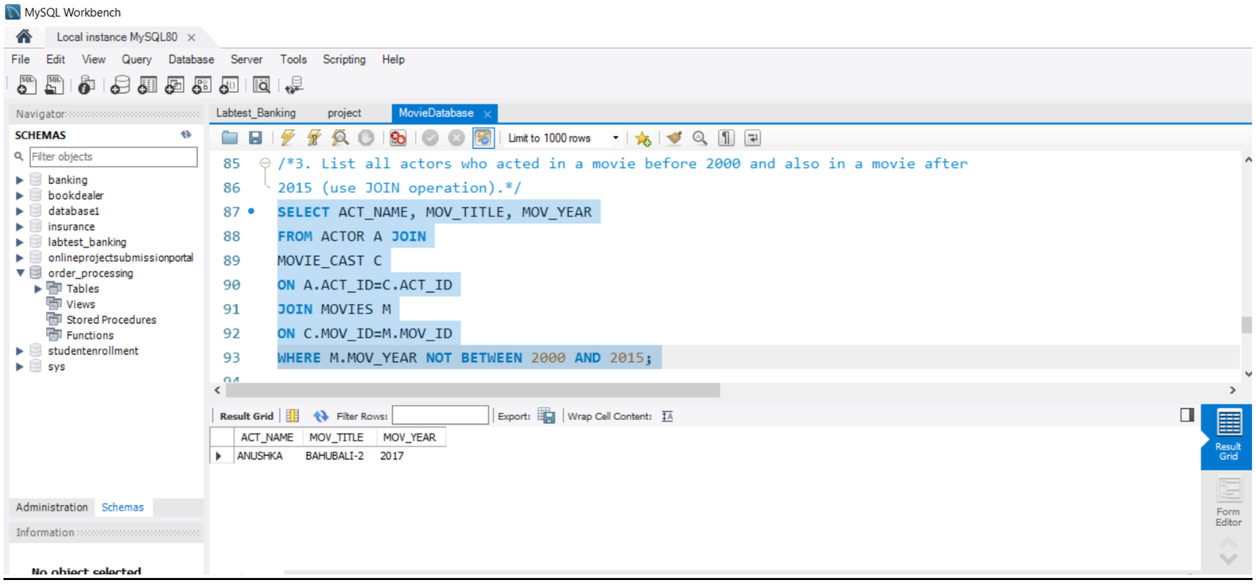
NUMBER OF STARS THAT MOVIE RECEIVED. SORT THE RESULT BY MOVIE TITLE.

5. UPDATE RATING OF ALL MOVIES DIRECTED BY 'STEVEN SPIELBERG' TO 5.

PROGRAM CODE :

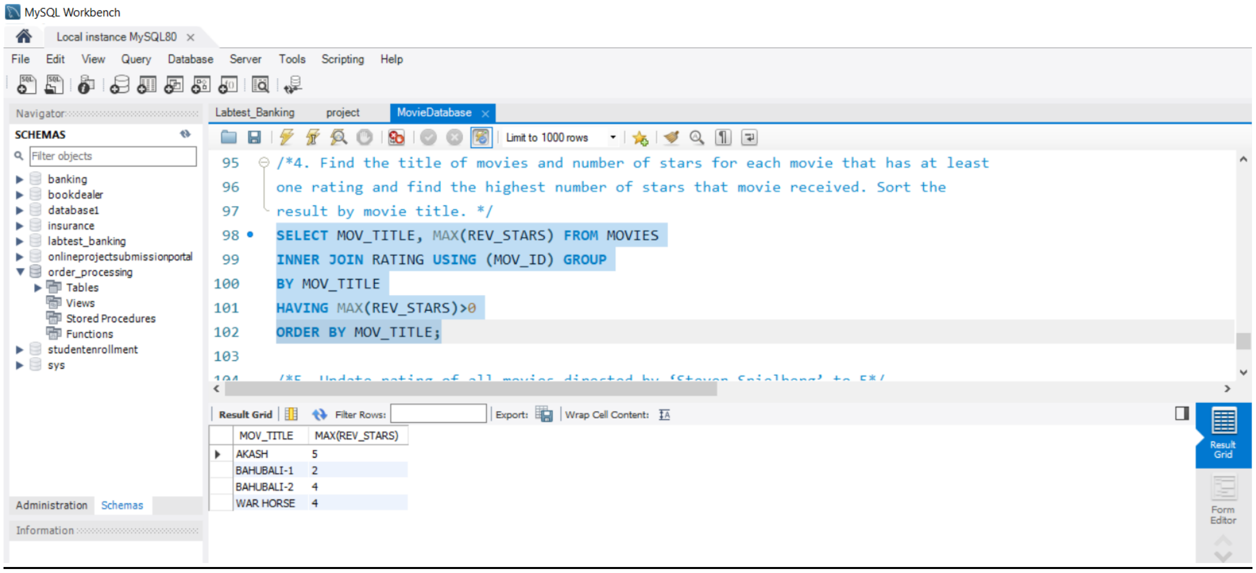
```
CREATE DATABASE MOVIE;
USE MOVIE;
CREATE TABLE ACTOR (
ACT_ID INT,
ACT_NAME VARCHAR (20),
ACT_GENDER CHAR (1),
PRIMARY KEY (ACT_ID));

CREATE TABLE DIRECTOR (
DIR_ID INT,
DIR_NAME VARCHAR (20),
DIR_PHONE REAL,
PRIMARY KEY (DIR_ID));

CREATE TABLE MOVIES (
MOV_ID INT,
MOV_TITLE VARCHAR (25),
MOV_YEAR INT,
MOV_LANG VARCHAR (12),
DIR_ID INT,
PRIMARY KEY (MOV_ID),
FOREIGN KEY (DIR_ID) REFERENCES DIRECTOR (DIR_ID));

CREATE TABLE MOVIE_CAST (
ACT_ID INT,
MOV_ID INT,
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 INT,
REV_STARS VARCHAR (25),
PRIMARY KEY (MOV_ID),
FOREIGN KEY (MOV_ID) REFERENCES MOVIES (MOV_ID));
SHOW TABLES;

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');
SELECT * FROM ACTOR;

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);
SELECT * FROM DIRECTOR;

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

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');
SELECT * FROM MOVIE_CAST;

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 RATING;

/*1. LIST THE TITLES OF ALL MOVIES DIRECTED BY‘HITCHCOCK’.*/
SELECT MOV_TITLE
FROM MOVIES
WHERE DIR_ID IN (SELECT DIR_ID
FROM DIRECTOR
WHERE DIR_NAME = 'HITCHCOCK');

/*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(MOV_TITLE)>1;

/*3. LIST ALL ACTORS WHO ACTED IN A MOVIE BEFORE 2000 AND ALSO IN A MOVIE AFTER
2015 (USE JOIN OPERATION).*/
SELECT ACT_NAME, MOV_TITLE, MOV_YEAR
FROM ACTOR A JOIN
MOVIE_CAST C
ON A.ACT_ID=C.ACT_ID
JOIN MOVIES M
ON C.MOV_ID=M.MOV_ID
WHERE M.MOV_YEAR NOT BETWEEN 2000 AND 2015;

/*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. */
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;

/*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;
```

SCREENSHOTS OF THE PROGRAM OUTPUT :



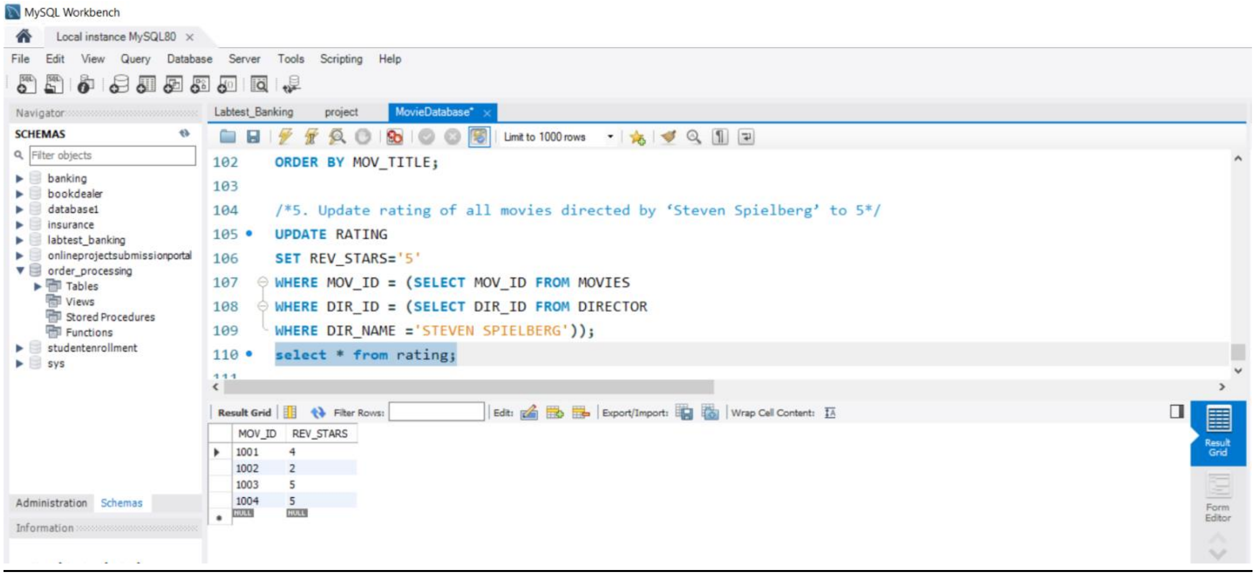
```
/*3. List all actors who acted in a movie before 2000 and also in a movie after
2015 (use JOIN operation).*/
SELECT ACT_NAME, MOV_TITLE, MOV_YEAR
FROM ACTOR A JOIN
MOVIE_CAST C
ON A.ACT_ID=C.ACT_ID
JOIN MOVIES M
ON C.MOV_ID=M.MOV_ID
WHERE M.MOV_YEAR NOT BETWEEN 2000 AND 2015;
```

ACT_NAME	MOV_TITLE	MOV_YEAR
ANUSHKA	BAHUBALI-2	2017



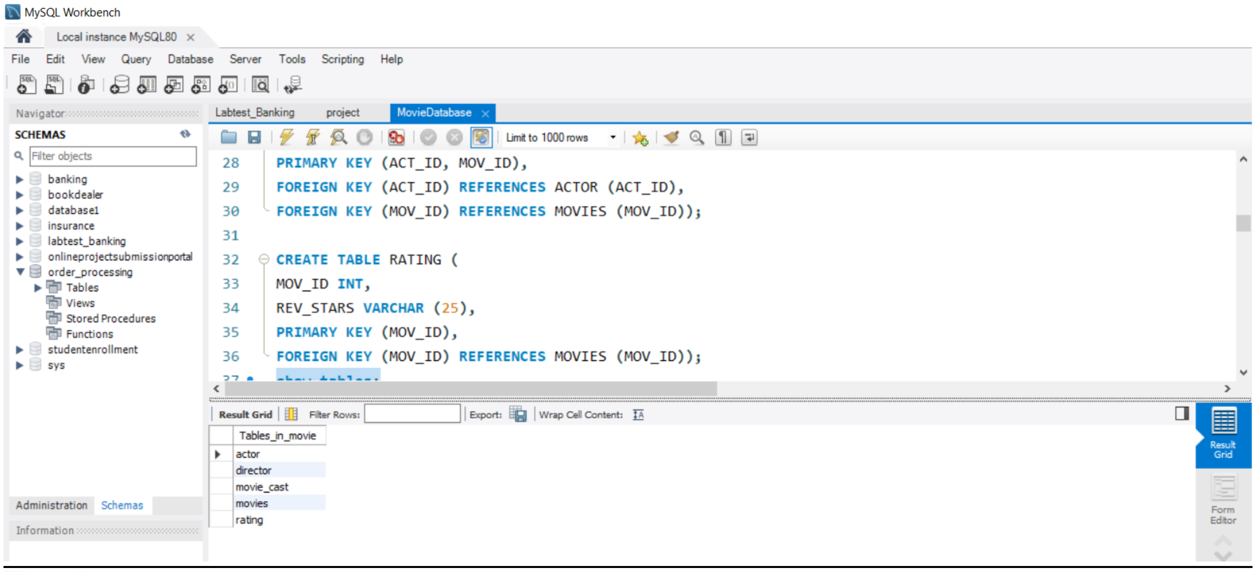
```
/*4. Find the title of movies and number of stars for each movie that has at least
one rating and find the highest number of stars that movie received. Sort the
result by movie title. */
SELECT MOV_TITLE, MAX(REV_STARS) FROM MOVIES
INNER JOIN RATING USING (MOV_ID) GROUP
BY MOV_TITLE
HAVING MAX(REV_STARS)>0
ORDER BY MOV_TITLE;

/*5. Update rating of all movies directed by 'Steven Spielberg' to 5*/
```

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



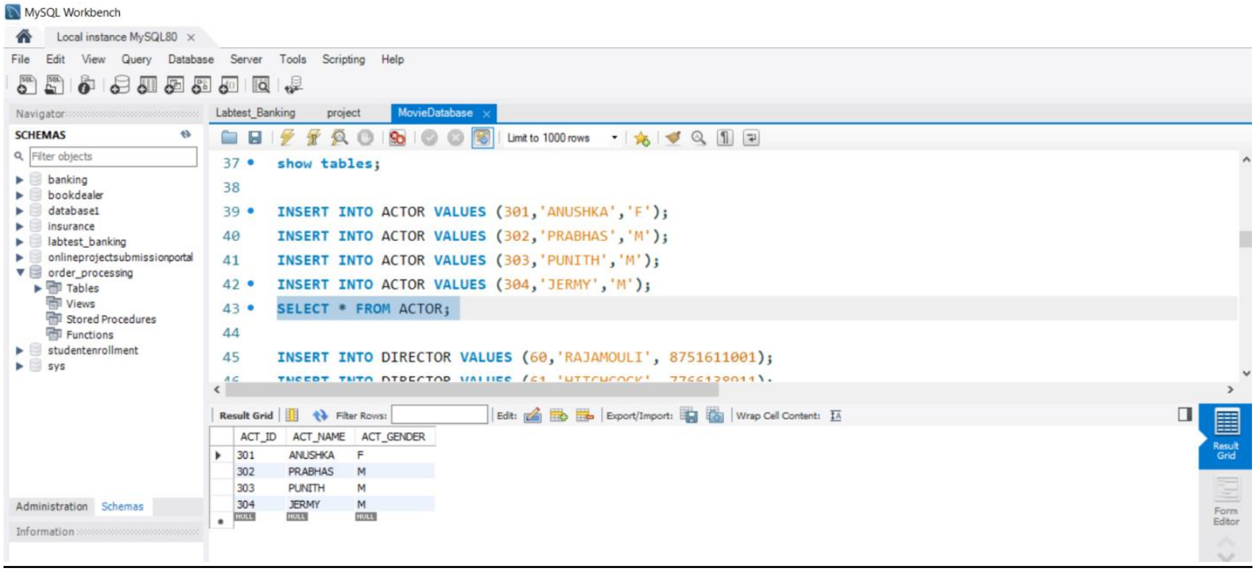
```
ORDER BY MOV_TITLE;

/*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



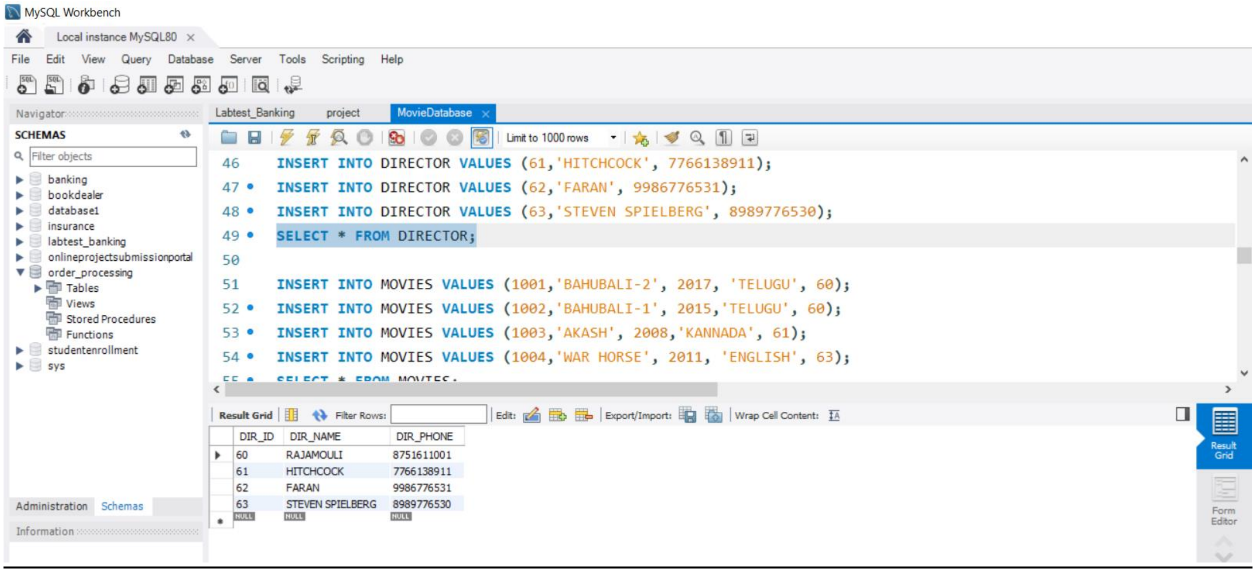
```
PRIMARY KEY (ACT_ID, MOV_ID),
FOREIGN KEY (ACT_ID) REFERENCES ACTOR (ACT_ID),
FOREIGN KEY (MOV_ID) REFERENCES MOVIES (MOV_ID));

CREATE TABLE RATING (
MOV_ID INT,
REV_STARS VARCHAR (25),
PRIMARY KEY (MOV_ID),
FOREIGN KEY (MOV_ID) REFERENCES MOVIES (MOV_ID));
```

Tables_in_movie
actor
director
movie_cast
movies
rating



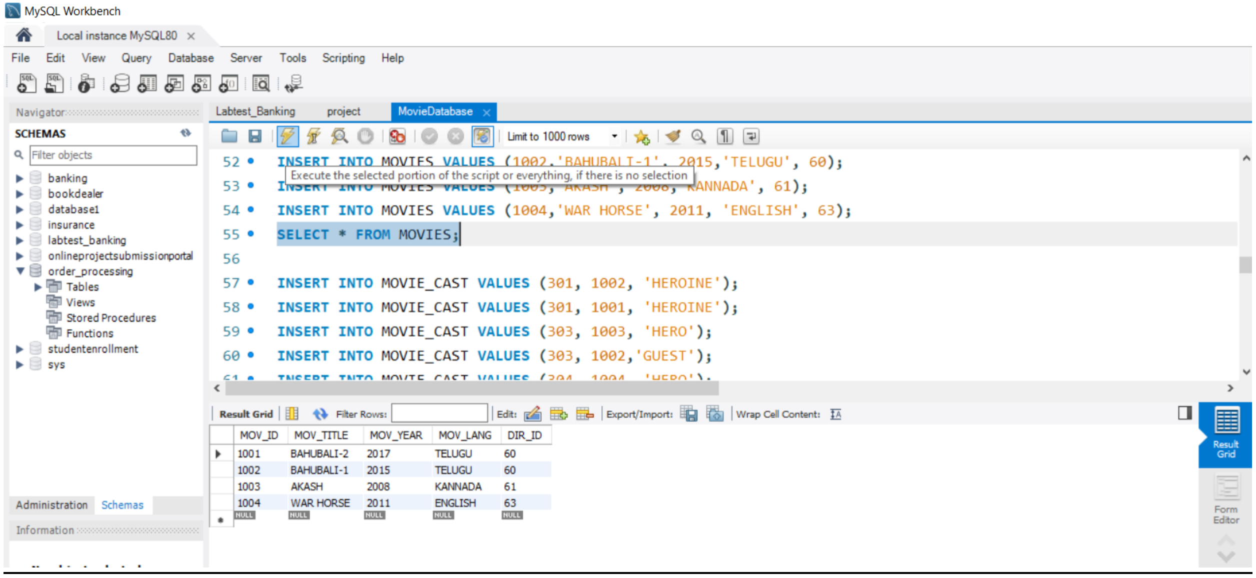
```
show tables;

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');
SELECT * FROM ACTOR;

INSERT INTO DIRECTOR VALUES (60,'RAJAMOULI', 8751611001);
```

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



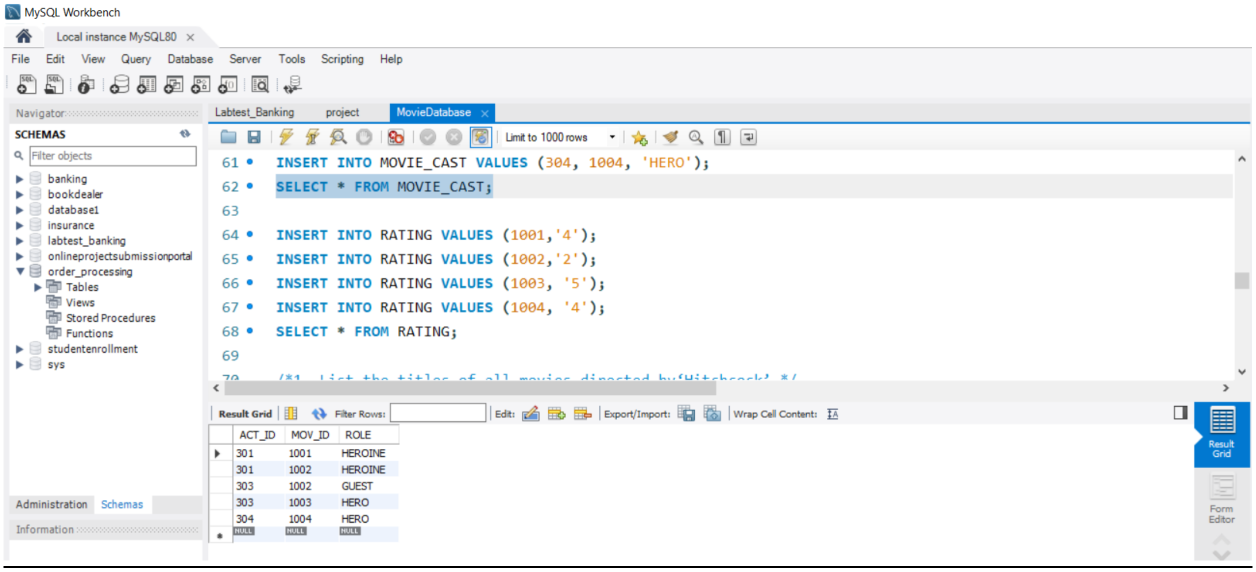
```
INSERT INTO DIRECTOR VALUES (61,'HITCHCOCK', 7766138911);
INSERT INTO DIRECTOR VALUES (62,'FARAN', 9986776531);
INSERT INTO DIRECTOR VALUES (63,'STEVEN SPIELBERG', 8989776530);
SELECT * FROM DIRECTOR;

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

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


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
banking
bookdealer
database1
insurance
labtest_banking
onlineprojectsubmissionportal
order_processing
Tables
Views
Stored Procedures
Functions
studentenrollment
sys
Administration Schemas
Information
Labtest_Banking project MovieDatabase
Limit to 1000 rows
Execute the selected portion of the script or everything, if there is no selection
Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:
Result Grid
Form Editor

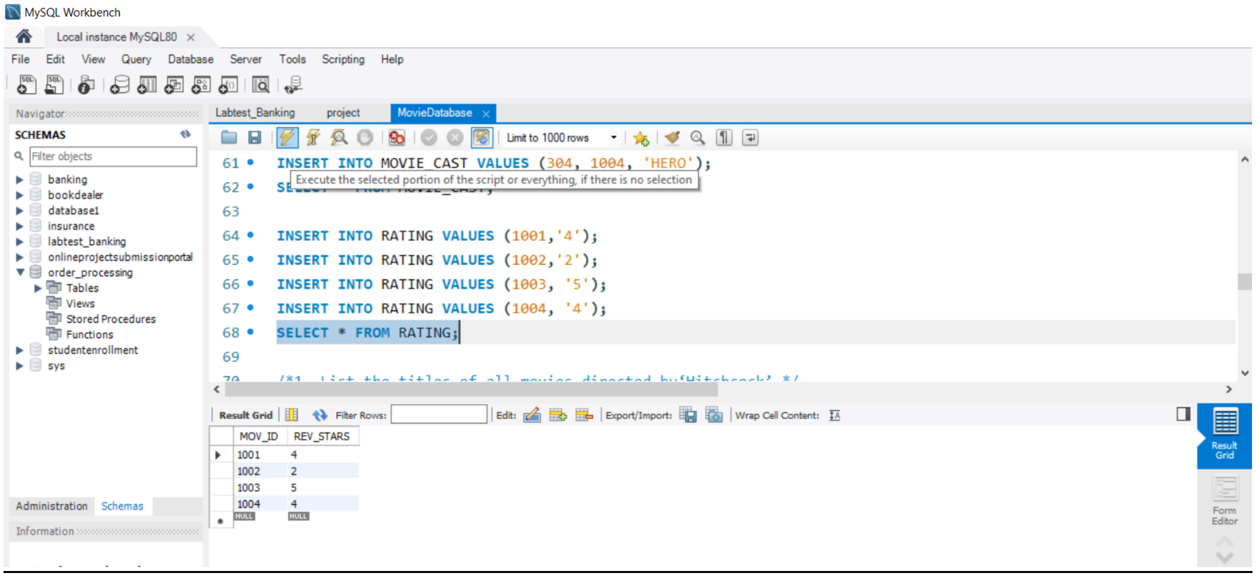
```
INSERT INTO MOVIES VALUES (1002,'BAHUBALI-1', 2015,'TELUGU', 60);
INSERT INTO MOVIES VALUES (1003,'AKASH', 2008,'KANNADA', 61);
INSERT INTO MOVIES VALUES (1004,'WAR HORSE', 2011, 'ENGLISH', 63);
SELECT * FROM MOVIES;

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');
```

MOV_ID	MOV_TITLE	MOV_YEAR	MOV_LANG	DIR_ID
1001	BAHUBALI-2	2017	TELUGU	60
1002	BAHUBALI-1	2015	TELUGU	60
1003	AKASH	2008	KANNADA	61
1004	WAR HORSE	2011	ENGLISH	63
NULL	NULL	NULL	NULL	NULL



```
INSERT INTO MOVIE_CAST VALUES (304, 1004, 'HERO');
SELECT * FROM MOVIE_CAST;

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 RATING;

/*1. List the titles of all movies directed by'Hitchcock' */
```

ACT_ID	MOV_ID	ROLE
301	1001	HEROINE
301	1002	HEROINE
303	1002	GUEST
303	1003	HERO
304	1004	HERO
NULL	NULL	NULL


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Labtest_Banking project MovieDatabase
Limit to 1000 rows
SCHEMAS
banking
bookdealer
database1
insurance
labtest_banking
onlineprojectsubmissionportal
order_processing
Tables
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Functions
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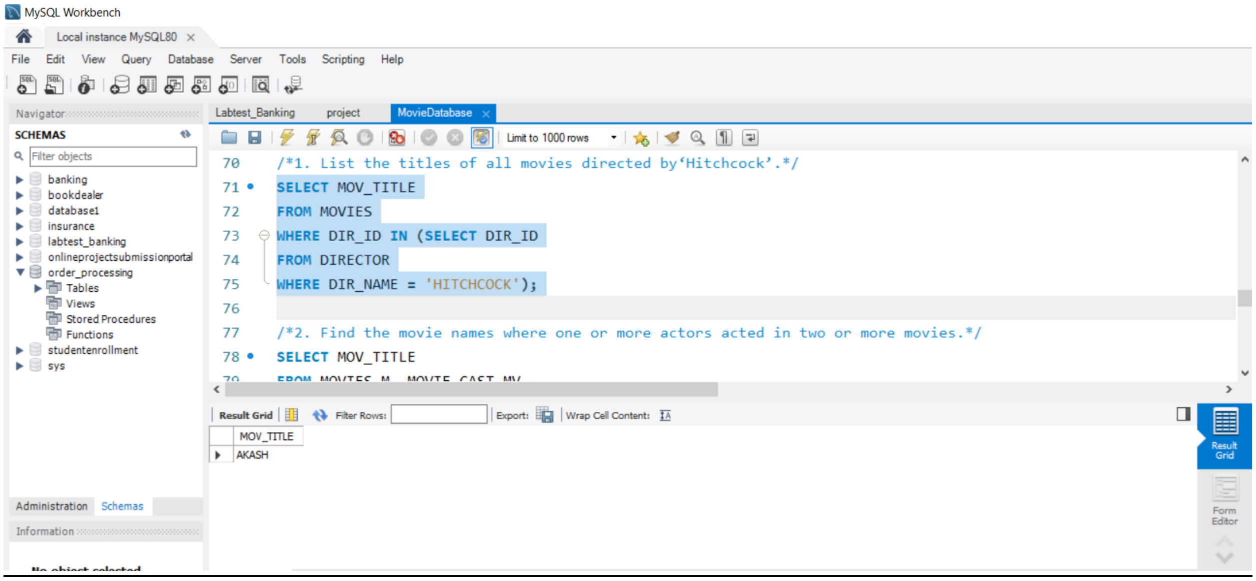
Administration Schemas
Information
Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:
Result Grid
Form Editor
Execute the selected portion of the script or everything, if there is no selection

```
INSERT INTO MOVIE_CAST VALUES (304, 1004, 'HERO');
SELECT * FROM MOVIE_CAST;

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 RATING;

/*1. List the titles of all movies directed by'Hitchcock'.*/
```

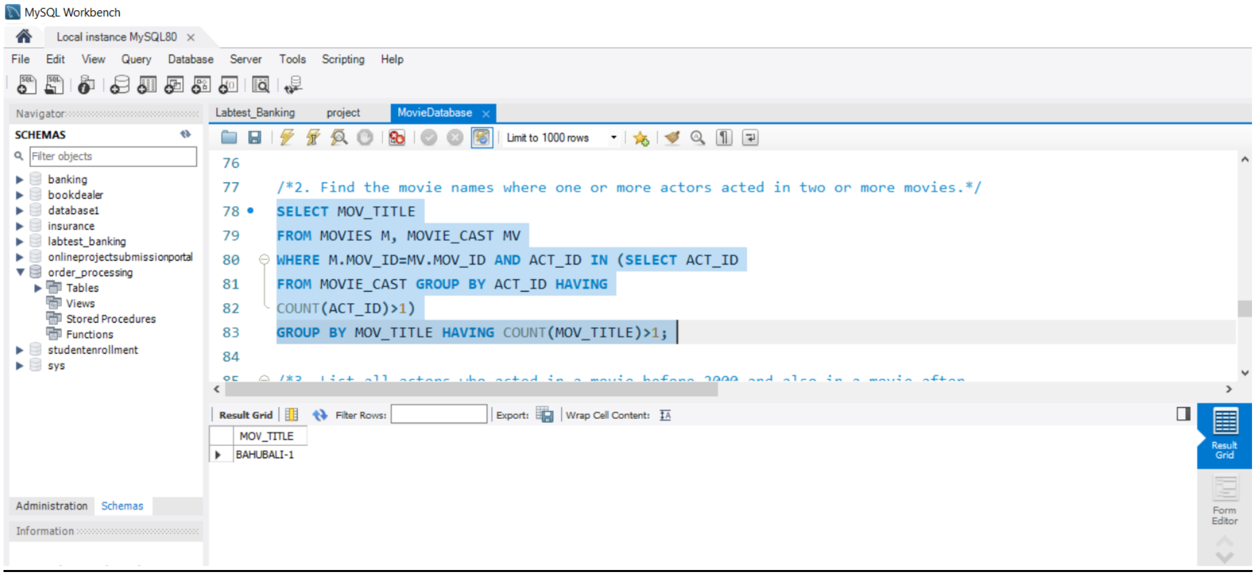
MOV_ID	REV_STARS
1001	4
1002	2
1003	5
1004	4
NULL	NULL


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Labtest_Banking project MovieDatabase
Limit to 1000 rows
SCHEMAS
Administration Schemas
Information
No object selected
Result Grid Filter Rows: Export: Wrap Cell Content:
Result Grid
Form Editor

```
/*1. List the titles of all movies directed by'Hitchcock'.*/
SELECT MOV_TITLE
FROM MOVIES
WHERE DIR_ID IN (SELECT DIR_ID
FROM DIRECTOR
WHERE DIR_NAME = 'HITCHCOCK');

/*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
```

MOV_TITLE
AKASH


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Labtest_Banking project MovieDatabase
Limit to 1000 rows
SCHEMAS
Administration Schemas
Information
Result Grid Filter Rows: Export: Wrap Cell Content:
Result Grid
Form Editor

```

/*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(MOV_TITLE)>1;

/*3. List all actors who acted in a movie before 2000 and also in a movie after
```

MOV_TITLE
BAHUBALI-1

**** END OF LAB PROGRAM WEEK - 6****