B. M. S. COLLEGE OF ENGINEERING

Lab Internals 2
Subject:DataBase Management Systems (MySQL)

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Sem & Section	4B
Dept.	CSE
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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

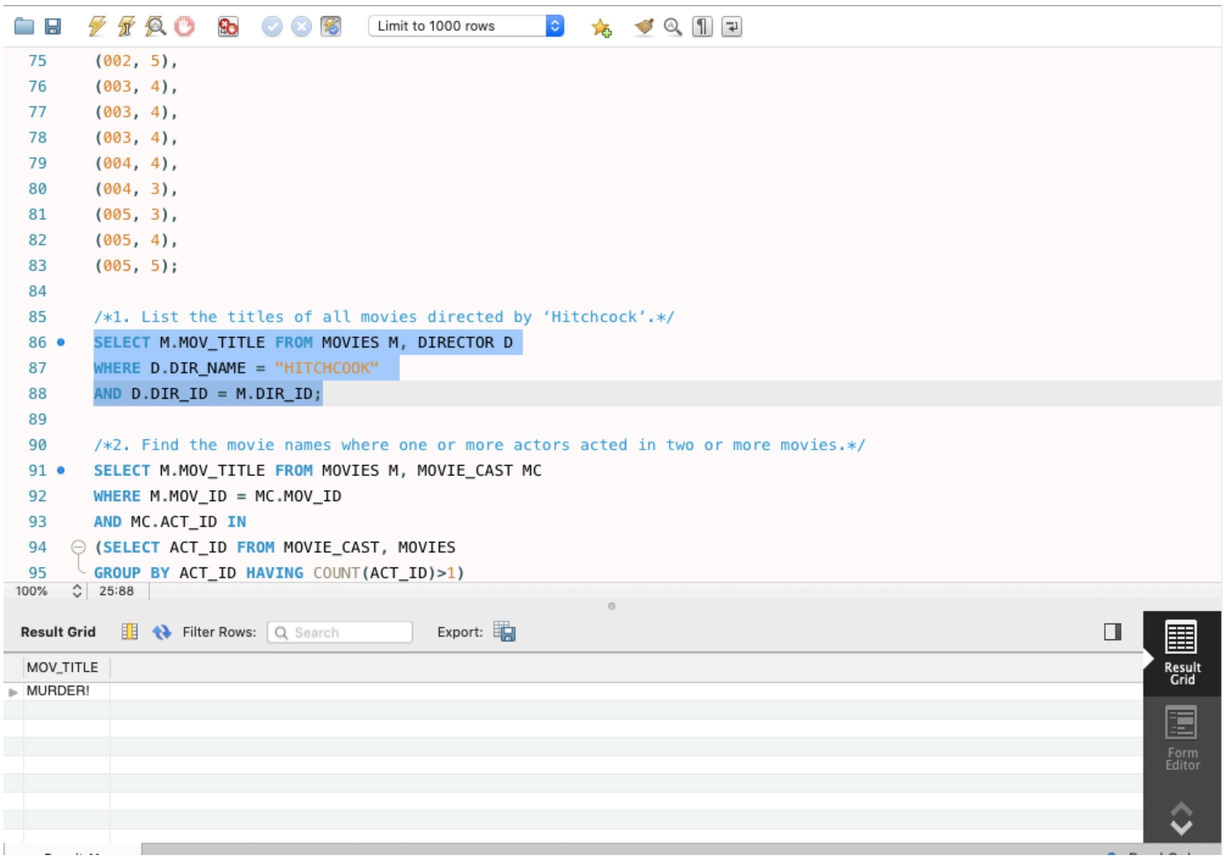
Code:
```
CREATE DATABASE LABEXAM2;
USE LABEXAM2;


CREATE TABLE ACTOR(ACT_ID INT,
ACT_NAME VARCHAR(30),
ACT_GENDER VARCHAR(6),
PRIMARY KEY(ACT_ID));


CREATE TABLE DIRECTOR(
DIR_ID INT,
DIR_NAME VARCHAR(50),
DIR_PHONE INT,
PRIMARY KEY(DIR_ID));


CREATE TABLE MOVIES(MOV_ID INT,
MOV_TITLE VARCHAR(100),
MOV_YEAR INT,
MOV_LANG VARCHAR(30),
DIR_ID INT,
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,
MOV_ID INT,
ROLEP VARCHAR(30),
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,
STARS FLOAT,
 FOREIGN KEY(MOV_ID) REFERENCES MOVIES(MOV_ID) ON
DELETE CASCADE ON UPDATE CASCADE);

INSERT INTO ACTOR VALUES(001, "HERBERT MARSHALL", "MALE"),
(002, "NORAH BURING", "FEMALE"),
(003, "EDWARD CHAPMAN" , "MALE"),
(004, "SAM NEILL", "MALE"),
(005, "LAURA DERN", "FEMALE"),
(006, "RAJ KUMAR" ,"MALE"),
(007, "ANANT NAG", "MALE"),
(008, "KALPANA", "FEMALE");


INSERT INTO DIRECTOR VALUES(001, "HITCHCOOK", 1234567890),
(002, "STEVEN SPIELBERG", 1345167890),
(003, "DORAI BHAGWAN", 1876543210),
(004, "RISHAB SHETTY", 1789012345);

INSERT INTO MOVIES VALUES(001, "MURDER!", 1930, "ENGLISH",
001),
(002, "JURASSIC PARK", 1993, "ENGLISH", 002),
(003, "ERADU KANASU", 1974, "KANNADA", 003),
(004, "BAYALU DAARI", 1976, "KANNADA", 003),
(005, "SARKARI HIRIYA PRATHAMIKA SHAALE KASARGOD", 2018,
"KANNADA", 004);
```

```
INSERT INTO MOVIE_CAST VALUES(001, 001, "ACTOR-MANAGER"),
(002, 001, "ACTRESS"),
(003, 001, "STAGE-MANAGER"),
(004, 002, "HERO"),
(005, 002, "HEROINE"),
(006, 003, "HERO"),
(008, 003, "HEROINE"),
(007, 004, "HERO"),
(008, 004, "HEROINE"),
(007, 005, "LAWYER");

INSERT INTO RATING VALUES(001, 4),
(001, 5),
(001, 5),
(002, 3),
(002, 4),
(002, 5),
(003, 4),
(003, 4),
(003, 4),
(004, 4),
(004, 3),
(005, 3),
(005, 4),
(005, 5);

/*1. List the titles of all movies directed by ‘Hitchcock’.*/
SELECT M.MOV_TITLE FROM MOVIES M, DIRECTOR D
WHERE D.DIR_NAME = "HITCHCOOK"
AND D.DIR_ID = M.DIR_ID;

/*2. Find the movie names where one or more actors acted in two or more
movies.*/
SELECT M.MOV_TITLE FROM MOVIES M, MOVIE_CAST MC
WHERE M.MOV_ID = MC.MOV_ID
AND MC.ACT_ID IN
(SELECT ACT_ID FROM MOVIE_CAST, MOVIES
GROUP BY ACT_ID HAVING COUNT(ACT_ID)>1)
GROUP BY MOV_TITLE
HAVING COUNT(*)>=2;
```

```
/*3. List all actors who acted in a movie before 2000 and also in a movie after
2015 (use JOIN
operation).*/
SELECT A.ACT_NAME, M.MOV_TITLE, M.MOV_YEAR
FROM ACTOR A JOIN
MOVIE_CAST MCT
ON A.ACT_ID = MCT.ACT_ID
JOIN MOVIES M
ON MCT.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(STARS)
FROM MOVIES
INNER JOIN RATING USING (MOV_ID)
GROUP BY MOV_TITLE
HAVING MAX(STARS)>0
ORDER BY MOV_TITLE;

/*5. Update rating of all movies directed by ‘Steven Spielberg’ to 5*/
UPDATE RATING
SET STARS = 5
WHERE MOV_ID IN (SELECT MOV_ID FROM MOVIES
WHERE DIR_ID IN (SELECT DIR_ID FROM DIRECTOR WHERE
DIR_NAME = "STEVEN SPIELBERG"));

SELECT R.STARS FROM RATING R, MOVIES M, DIRECTOR D
WHERE
D.DIR_NAME = "STEVEN SPIELBERG" AND M.DIR_ID = D.DIR_ID
AND R.MOV_ID = M.MOV_ID;
```

Output:

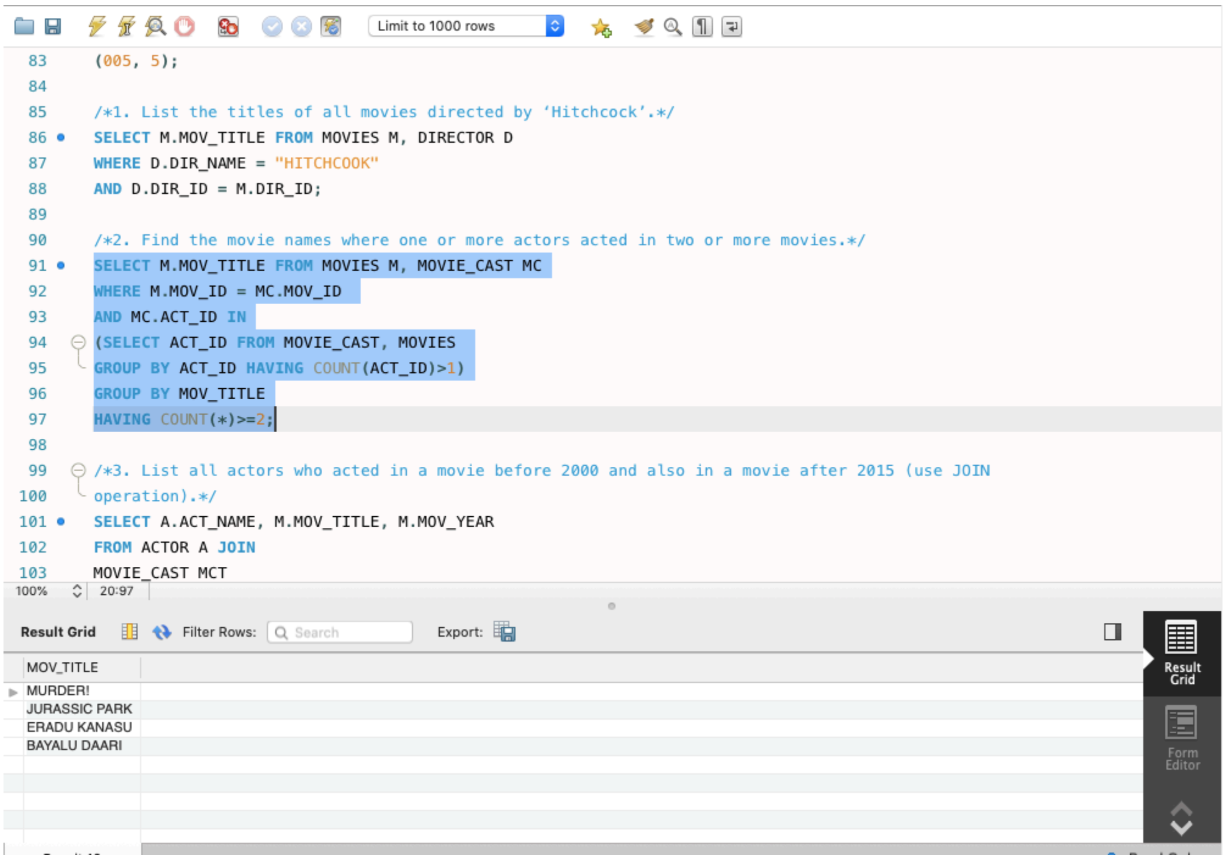
/*1. List the titles of all movies directed by ‘Hitchcock’.*/



```
(002, 5),
(003, 4),
(003, 4),
(003, 4),
(004, 4),
(004, 3),
(005, 3),
(005, 4),
(005, 5);

/*1. List the titles of all movies directed by ‘Hitchcock’.*/
SELECT M.MOV_TITLE FROM MOVIES M, DIRECTOR D
WHERE D.DIR_NAME = "HITCHCOOK"
AND D.DIR_ID = M.DIR_ID;

/*2. Find the movie names where one or more actors acted in two or more movies.*/
SELECT M.MOV_TITLE FROM MOVIES M, MOVIE_CAST MC
WHERE M.MOV_ID = MC.MOV_ID
AND MC.ACT_ID IN
(SELECT ACT_ID FROM MOVIE_CAST, MOVIES
GROUP BY ACT_ID HAVING COUNT(ACT_ID)>1)
```

```
MOV_TITLE
MURDER!
```

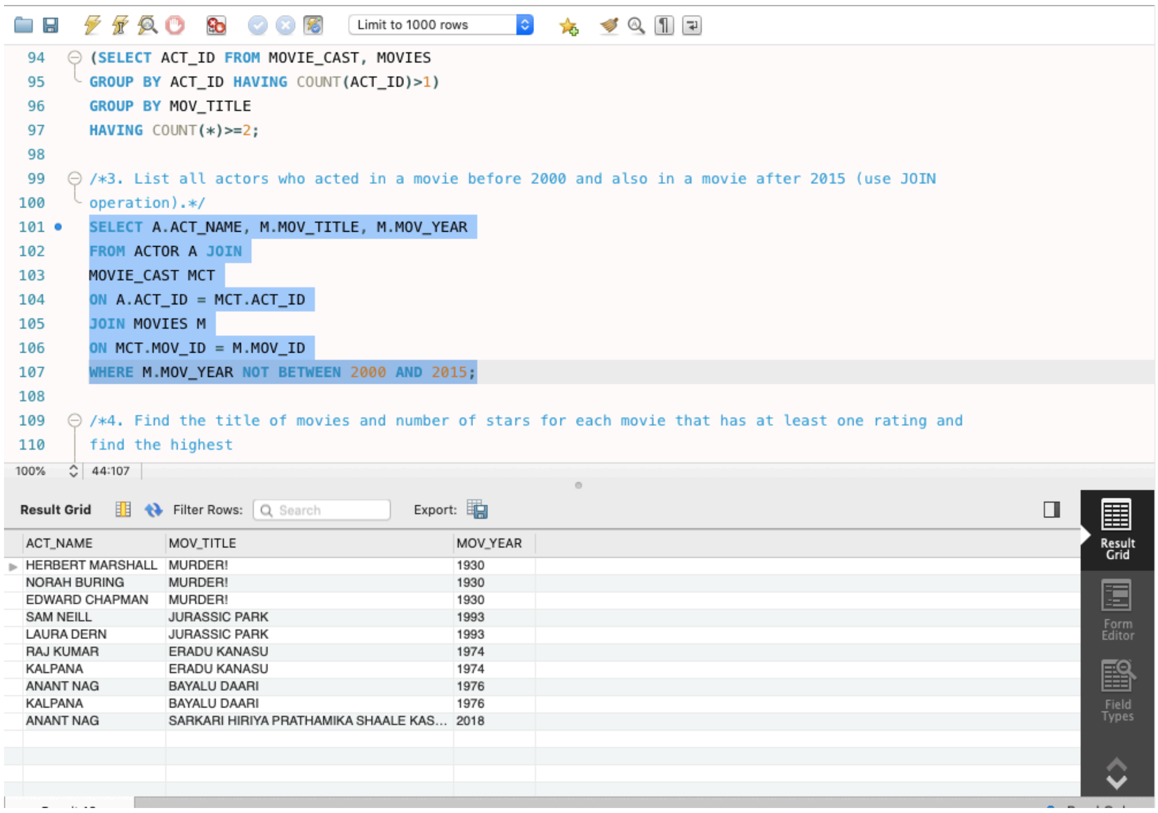
2. Find the movie names where one or more actors acted in two or more movies.



```
(005, 5);

/*1. List the titles of all movies directed by ‘Hitchcock’.*/
SELECT M.MOV_TITLE FROM MOVIES M, DIRECTOR D
WHERE D.DIR_NAME = "HITCHCOOK"
AND D.DIR_ID = M.DIR_ID;

/*2. Find the movie names where one or more actors acted in two or more movies.*/
SELECT M.MOV_TITLE FROM MOVIES M, MOVIE_CAST MC
WHERE M.MOV_ID = MC.MOV_ID
AND MC.ACT_ID IN
(SELECT ACT_ID FROM MOVIE_CAST, MOVIES
GROUP BY ACT_ID HAVING COUNT(ACT_ID)>1)
GROUP BY MOV_TITLE
HAVING COUNT(*)>=2;

/*3. List all actors who acted in a movie before 2000 and also in a movie after 2015 (use JOIN
operation).*/
SELECT A.ACT_NAME, M.MOV_TITLE, M.MOV_YEAR
FROM ACTOR A JOIN
MOVIE_CAST MCT
```

```
MOV_TITLE
MURDER!
JURASSIC PARK
ERADU KANASU
BAYALU DAARI
```

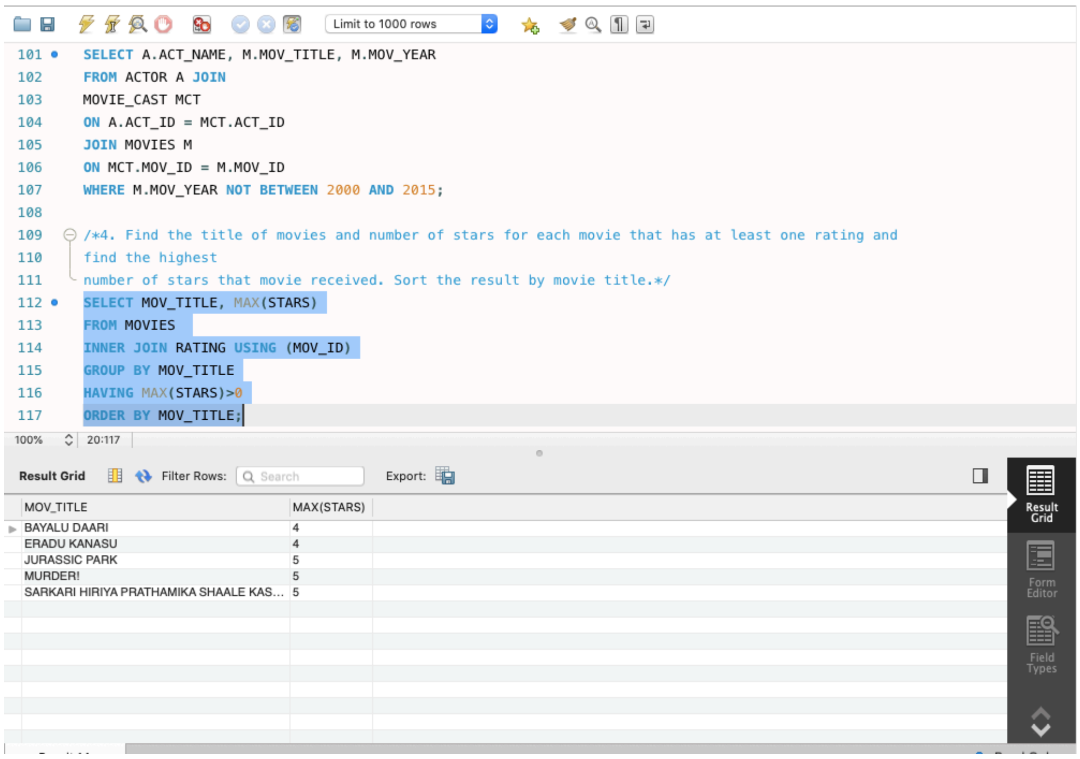
3. List all actors who acted in a movie before 2000 and also in a movie after 2015 (use JOIN
operation)



```sql
(SELECT ACT_ID FROM MOVIE_CAST, MOVIES
GROUP BY ACT_ID HAVING COUNT(ACT_ID)>1)
GROUP BY MOV_TITLE
HAVING COUNT(*)>=2;

/*3. List all actors who acted in a movie before 2000 and also in a movie after 2015 (use JOIN
operation).*/
SELECT A.ACT_NAME, M.MOV_TITLE, M.MOV_YEAR
FROM ACTOR A JOIN
MOVIE_CAST MCT
ON A.ACT_ID = MCT.ACT_ID
JOIN MOVIES M
ON MCT.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
```

```
ACT_NAME           MOV_TITLE                              MOV_YEAR
HERBERT MARSHALL   MURDER!                                1930
NORAH BURING       MURDER!                                1930
EDWARD CHAPMAN     MURDER!                                1930
SAM NEILL          JURASSIC PARK                          1993
LAURA DERN         JURASSIC PARK                          1993
RAJ KUMAR          ERADU KANASU                           1974
KALPANA            ERADU KANASU                           1974
ANANT NAG          BAYALU DAARI                           1976
KALPANA            BAYALU DAARI                           1976
ANANT NAG          SARKARI HIRIYA PRATHAMIKA SHAALE KAS...  2018
```

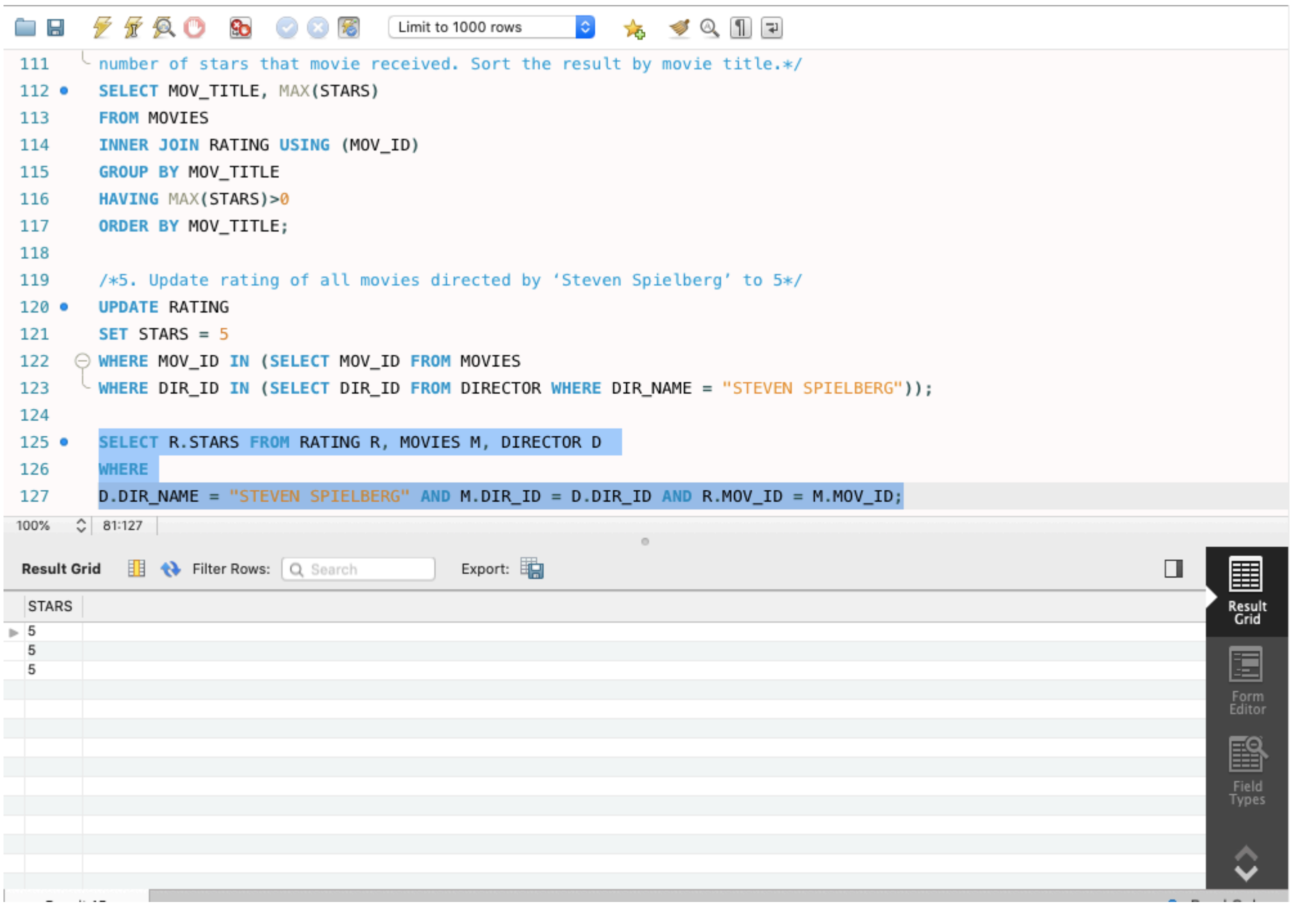
4.
Find the title of movies and number of stars for each movie that has at least one rating and
find the
highest
number of
stars that
movie
received.
Sort the
result by
movie
title.



```sql
SELECT A.ACT_NAME, M.MOV_TITLE, M.MOV_YEAR
FROM ACTOR A JOIN
MOVIE_CAST MCT
ON A.ACT_ID = MCT.ACT_ID
JOIN MOVIES M
ON MCT.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(STARS)
FROM MOVIES
INNER JOIN RATING USING (MOV_ID)
GROUP BY MOV_TITLE
HAVING MAX(STARS)>0
ORDER BY MOV_TITLE;
```

```
MOV_TITLE                                MAX(STARS)
BAYALU DAARI                             4
ERADU KANASU                             4
JURASSIC PARK                            5
MURDER!                                  5
SARKARI HIRIYA PRATHAMIKA SHAALE KAS...  5
```

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



```
number of stars that movie received. Sort the result by movie title.*/
SELECT MOV_TITLE, MAX(STARS)
FROM MOVIES
INNER JOIN RATING USING (MOV_ID)
GROUP BY MOV_TITLE
HAVING MAX(STARS)>0
ORDER BY MOV_TITLE;

/*5. Update rating of all movies directed by ‘Steven Spielberg’ to 5*/
UPDATE RATING
SET STARS = 5
WHERE MOV_ID IN (SELECT MOV_ID FROM MOVIES
WHERE DIR_ID IN (SELECT DIR_ID FROM DIRECTOR WHERE DIR_NAME = "STEVEN SPIELBERG"));

SELECT R.STARS FROM RATING R, MOVIES M, DIRECTOR D
WHERE
D.DIR_NAME = "STEVEN SPIELBERG" AND M.DIR_ID = D.DIR_ID AND R.MOV_ID = M.MOV_ID;
```

```
STARS
5
5
5
```