PROGRAM 9: 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)

✔ MySQL returned an empty result set (i.e. zero rows). (Query took 0.3704 seconds.)

```sql
CREATE TABLE ACTOR ( ACT_ID INT (3) PRIMARY KEY, ACT_NAME VARCHAR (20), ACT_GENDER VARCHAR (1) )
```

[Edit inline] [Edit] [Create PHP code]

✔ MySQL returned an empty result set (i.e. zero rows). (Query took 0.2360 seconds.)

```sql
CREATE TABLE DIRECTOR ( DIR_ID INT (3) PRIMARY KEY, DIR_NAME VARCHAR (20), DIR_PHONE INT (10) )
```

[Edit inline] [Edit] [Create PHP code]

✔ MySQL returned an empty result set (i.e. zero rows). (Query took 0.1630 seconds.)

```sql
CREATE TABLE MOVIES ( MOV_ID INT (4) PRIMARY KEY , MOV_TITLE VARCHAR (25), MOV_YEAR INT (4), MOV_LANG VARCHAR (12), DIR_ID INT (3),
FOREIGN KEY (DIR_ID) REFERENCES DIRECTOR (DIR_ID) on UPDATE CASCADE ON DELETE CASCADE)
```

[Edit inline] [Edit] [Create PHP code]

✔ MySQL returned an empty result set (i.e. zero rows). (Query took 0.1658 seconds.)

```sql
CREATE TABLE MOVIE_CAST ( ACT_ID INT (3), MOV_ID INT (4), ROLE VARCHAR (10), FOREIGN KEY (ACT_ID) REFERENCES ACTOR (ACT_ID) on UPDATE
CASCADE ON DELETE CASCADE, FOREIGN KEY (MOV_ID) REFERENCES MOVIES (MOV_ID)on UPDATE CASCADE ON DELETE CASCADE)
```

[Edit inline] [Edit] [Create PHP code]

✔ MySQL returned an empty result set (i.e. zero rows). (Query took 0.2214 seconds.)

```sql
CREATE TABLE RATING ( MOV_ID INT (4), REV_STARS VARCHAR (25), FOREIGN KEY (MOV_ID) REFERENCES MOVIES (MOV_ID) on UPDATE CASCADE ON DELETE
CASCADE)
```

[Edit inline] [Edit] [Create PHP code]

Table	Action							Rows	Type	Collation	Size	Overhead
actor	☆	🗐 Browse	🔧 Structure	🔍 Search	📥 Insert	🗑 Empty	⊖ Drop	0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
director	☆	🗐 Browse	🔧 Structure	🔍 Search	📥 Insert	🗑 Empty	⊖ Drop	0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
movies	☆	🗐 Browse	🔧 Structure	🔍 Search	📥 Insert	🗑 Empty	⊖ Drop	0	InnoDB	utf8mb4_general_ci	32.0 KiB	-
movie_cast	☆	🗐 Browse	🔧 Structure	🔍 Search	📥 Insert	🗑 Empty	⊖ Drop	0	InnoDB	utf8mb4_general_ci	48.0 KiB	-
rating	☆	🗐 Browse	🔧 Structure	🔍 Search	📥 Insert	🗑 Empty	⊖ Drop	0	InnoDB	utf8mb4_general_ci	32.0 KiB	-
5 tables	**Sum**							**0**	**InnoDB**	**utf8mb4_general_ci**	**144.0 KiB**	**0 B**

✔ 1 row inserted. (Query took 0.0422 seconds.)

```sql
INSERT INTO `actor` VALUES (101,'Hrithik','M')
```

[Edit inline] [Edit] [Create PHP code]

✔ 1 row inserted. (Query took 0.0626 seconds.)

```sql
INSERT INTO `actor` VALUES (102,'Shahrukh','M')
```

[Edit inline] [Edit] [Create PHP code]
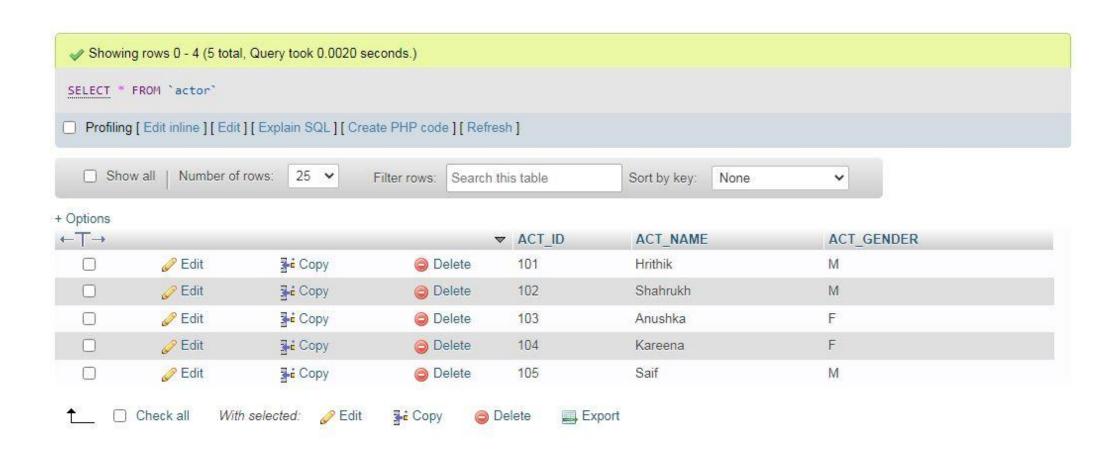
✔ 1 row inserted. (Query took 0.0472 seconds.)

```sql
INSERT INTO `actor` VALUES (103,'Anushka','F')
```

[Edit inline] [Edit] [Create PHP code]

✔ 1 row inserted. (Query took 0.0312 seconds.)

```sql
INSERT INTO `actor` VALUES (104,'Kareena','F')
```
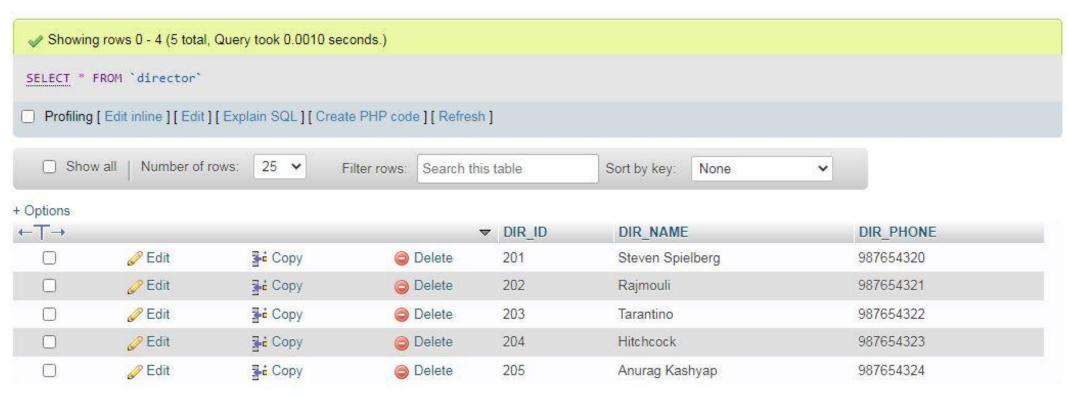
[Edit inline] [Edit] [Create PHP code]

✔ 1 row inserted. (Query took 0.0478 seconds.)

```sql
INSERT INTO `actor` VALUES (105,'Saif','M')
```

[Edit inline] [Edit] [Create PHP code]

```sql
SELECT * FROM `actor`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ⌄   Filter rows: | Search this table | Sort by key: | None ⌄ |

+ Options

←T→				▼ ACT_ID	ACT_NAME	ACT_GENDER
☐	🖉 Edit	⇒ Copy	⊖ Delete	101	Hrithik	M
☐	🖉 Edit	⇒ Copy	⊖ Delete	102	Shahrukh	M
☐	🖉 Edit	⇒ Copy	⊖ Delete	103	Anushka	F
☐	🖉 Edit	⇒ Copy	⊖ Delete	104	Kareena	F
☐	🖉 Edit	⇒ Copy	⊖ Delete	105	Saif	M

↑   ☐ Check all   With selected: 🖉 Edit   ⇒ Copy   ⊖ Delete   ▦ Export

✓ 1 row inserted. (Query took 0.0392 seconds.)

```sql
INSERT INTO `director` VALUES (201,'Steven Spielberg',987654320)
```

[Edit inline] [Edit] [Create PHP code]

✓ 1 row inserted. (Query took 0.1312 seconds.)

```sql
INSERT INTO `director` VALUES (202,'Rajmouli',987654321)
```

[Edit inline] [Edit] [Create PHP code]

✓ 1 row inserted. (Query took 0.0186 seconds.)

```sql
INSERT INTO `director` VALUES (203,'Tarantino',987654322)
```

[Edit inline] [Edit] [Create PHP code]

✓ 1 row inserted. (Query took 0.0382 seconds.)

```sql
INSERT INTO `director` VALUES (204,'Hitchcock',987654323)
```

[Edit inline] [Edit] [Create PHP code]

✓ 1 row inserted. (Query took 0.0312 seconds.)

```sql
INSERT INTO `director` VALUES (205,'Anurag Kashyap',987654324)
```

[Edit inline] [Edit] [Create PHP code]

Showing rows 0 - 4 (5 total, Query took 0.0010 seconds.)

```sql
SELECT * FROM `director`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by key: None ▾

+ Options

				DIR_ID	DIR_NAME	DIR_PHONE
☐	🖉 Edit	⊞ Copy	⊖ Delete	201	Steven Spielberg	987654320
☐	🖉 Edit	⊞ Copy	⊖ Delete	202	Rajmouli	987654321
☐	🖉 Edit	⊞ Copy	⊖ Delete	203	Tarantino	987654322
☐	🖉 Edit	⊞ Copy	⊖ Delete	204	Hitchcock	987654323
☐	🖉 Edit	⊞ Copy	⊖ Delete	205	Anurag Kashyap	987654324

✅ 1 row inserted. (Query took 0.0512 seconds.)

```sql
INSERT INTO `movies` VALUES (301,'Malang',2019,'Hindi',201)
```

[Edit inline] [Edit] [Create PHP code]

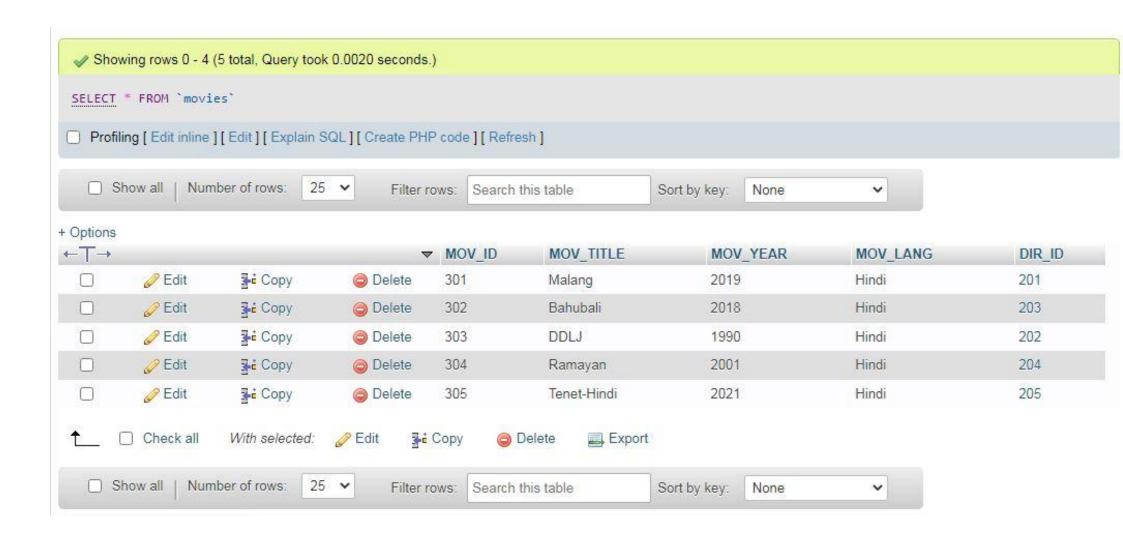✅ 1 row inserted. (Query took 0.1844 seconds.)

```sql
INSERT INTO `movies` VALUES (302,'Bahubali',2018,'Hindi',203)
```

[Edit inline] [Edit] [Create PHP code]

✅ 1 row inserted. (Query took 0.1278 seconds.)

```sql
INSERT INTO `movies` VALUES (303,'DDLJ',1990,'Hindi',202)
```

[Edit inline] [Edit] [Create PHP code]

✅ 1 row inserted. (Query took 0.0226 seconds.)

```sql
INSERT INTO `movies` VALUES (304,'Ramayan',2001,'Hindi',204)
```

[Edit inline] [Edit] [Create PHP code]

✅ 1 row inserted. (Query took 0.0468 seconds.)

```sql
INSERT INTO `movies` VALUES (305,'Tenet-Hindi',2021,'Hindi',205)
```

[Edit inline] [Edit] [Create PHP code]

```
SELECT * FROM `movies`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ˅   Filter rows: Search this table   Sort by key: None ˅

+ Options

				MOV_ID	MOV_TITLE	MOV_YEAR	MOV_LANG	DIR_ID
☐	🖉 Edit	Copy	⊘ Delete	301	Malang	2019	Hindi	201
☐	🖉 Edit	Copy	⊘ Delete	302	Bahubali	2018	Hindi	203
☐	🖉 Edit	Copy	⊘ Delete	303	DDLJ	1990	Hindi	202
☐	🖉 Edit	Copy	⊘ Delete	304	Ramayan	2001	Hindi	204
☐	🖉 Edit	Copy	⊘ Delete	305	Tenet-Hindi	2021	Hindi	205

☐ Check all   With selected: 🖉 Edit   Copy   ⊘ Delete   🖳 Export

☐ Show all | Number of rows: 25 ˅   Filter rows: Search this table   Sort by key: None ˅

✔ 1 row inserted. (Query took 0.0402 seconds.)

INSERT INTO `movie_cast` VALUES (102,301,'Lead')

[Edit inline] [Edit] [Create PHP code]

✔ 1 row inserted. (Query took 0.0844 seconds.)

INSERT INTO `movie_cast` VALUES (101,302,'Lead')
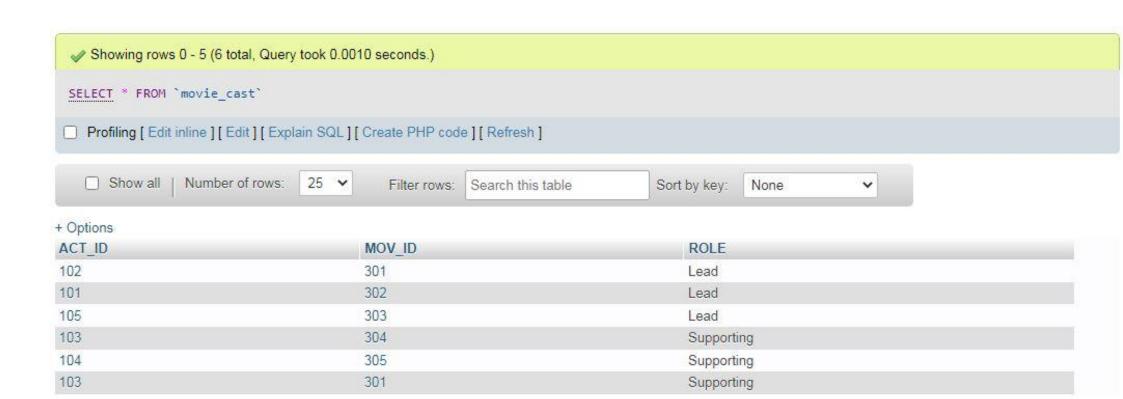
[Edit inline] [Edit] [Create PHP code]

✔ 1 row inserted. (Query took 0.0456 seconds.)

INSERT INTO `movie_cast` VALUES (105,303,'Lead')

[Edit inline] [Edit] [Create PHP code]

✔ 1 row inserted. (Query took 0.0410 seconds.)

INSERT INTO `movie_cast` VALUES (103,304,'Supporting')

[Edit inline] [Edit] [Create PHP code]

✔ 1 row inserted. (Query took 0.0310 seconds.)

INSERT INTO `movie_cast` VALUES (104,305,'Supporting')

[Edit inline] [Edit] [Create PHP code]

✔ 1 row inserted. (Query took 0.0320 seconds.)

INSERT INTO `movie_cast` VALUES (103,301,'Supporting')

[Edit inline] [Edit] [Create PHP code]

ACT_ID	MOV_ID	ROLE
102	301	Lead
101	302	Lead
105	303	Lead
103	304	Supporting
104	305	Supporting
103	301	Supporting

✅ 1 row inserted. (Query took 0.0798 seconds.)

```sql
INSERT INTO `RATING` VALUES (301,4)
```

[Edit inline] [Edit] [Create PHP code]

✅ 1 row inserted. (Query took 0.1168 seconds.)

```sql
INSERT INTO `RATING` VALUES (302,2)
```

[Edit inline] [Edit] [Create PHP code]

✅ 1 row inserted. (Query took 0.0430 seconds.)

```sql
INSERT INTO `RATING` VALUES (303, 5)
```

[Edit inline] [Edit] [Create PHP code]

✅ 1 row inserted. (Query took 0.0320 seconds.)

```sql
INSERT INTO `RATING` VALUES (304, 4)
```

[Edit inline] [Edit] [Create PHP code]

✅ 1 row inserted. (Query took 0.0570 seconds.)

```sql
INSERT INTO `RATING` VALUES (302,5)
```

[Edit inline] [Edit] [Create PHP code]

✅ 1 row inserted. (Query took 0.0550 seconds.)

```sql
INSERT INTO `RATING` VALUES (303, 1)
```

[Edit inline] [Edit] [Create PHP code]

```
SELECT * FROM `rating`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 ⌄   Filter rows: Search this table   Sort by key: None ⌄

+ Options

MOV_ID	REV_STARS
301	4
302	2
303	5
304	4
302	5
303	1

Write SQL queries to

i. List the titles of all movies directed by 'Hitchcock'.

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

Showing rows 0 - 1 (2 total, Query took 0.0156 seconds.)

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

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▾   Filter rows: Search this table

+ Options

MOV_TITLE
Malang
Ramayan

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

✔ Showing rows 0 - 4 (5 total, Query took 0.0070 seconds.)

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

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ⌄   Filter rows: Search this table   Sort by key: None ⌄

+ Options

ACT_NAME	MOV_TITLE	MOV_YEAR
Shahrukh	Malang	2019
Hrithik	Bahubali	2018
Saif	DDLJ	1990
Kareena	Tenet-Hindi	2021
Anushka	Malang	2019

☐ Show all | Number of rows: 25 ⌄   Filter rows: Search this table   Sort by key: None ⌄

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 MOV_TITLE,MAX(REV_STARS) AS Max_Rating FROM MOVIES M,RATING R WHERE M.MOV_ID=R.MOV_ID GROUP BY M.MOV_TITLE HAVING MAX(REV_STARS)>0
ORDER BY M.MOV_TITLE
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ⌄   Filter rows: Search this table

+ Options

MOV_TITLE ▲ 1	Max_Rating
Bahubali	5
DDLJ	5
Malang	4
Ramayan	4

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

✔ 1 row affected. (Query took 0.0634 seconds.)

```
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 = 'STEVEN SPIELBERG'))
```

[Edit inline] [Edit] [Create PHP code]

✔ Showing rows 0 - 5 (6 total, Query took 0.0010 seconds.)

```
SELECT * FROM `rating`
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ⌄ Filter rows: Search this table Sort by key: None ⌄

+ Options

MOV_ID	REV_STARS
301	5
302	2
303	5
304	4
302	5
303	1