

DBMS ASSIGNMENT -5

1. INNER JOIN

a)

```
CREATE TABLE movies_1 (  
    mov_id INT NOT NULL PRIMARY KEY,  
    mov_title CHAR(45) NOT NULL,  
    mov_rel_date_year DATE NOT NULL,  
    mov_lang CHAR(45) NOT NULL,  
    mov_country CHAR(45) NOT NULL,  
    mov_duration INT NOT NULL,  
    Constraint uq_mov_id Unique (mov_id)  
);  
  
INSERT INTO movies_1(mov_id,mov_title,mov_rel_date_year  
,mov_lang ,mov_country  
,mov_duration)  
VALUES(1,'Kirik Party','2018-06-15','Kannada','India','2');  
  
INSERT INTO movies_1 VALUES(2,'Parasite','2019-06-  
18','Korean','South Korea','3');  
  
INSERT INTO movies_1 VALUES(3,'Anabell','2008-07-  
14','English','America','2');  
  
INSERT INTO movies_1 VALUES(4,'Dil Bechara','2020-07-  
10','Hindi','India','2');
```

```
INSERT INTO movies_1 VALUES(5,'Padmaavat','2017-03-12','Hindi','India','2');
```

```
INSERT INTO movies_1 VALUES(6,'Penguin','2020-06-11','Tamil','India','2');
```

```
INSERT INTO movies_1 VALUES(7,'Mahanati','2018-03-11','Tamil','India','2');
```

```
CREATE TABLE movies_cast (  
    mov_id INT NOT NULL,  
    act_id INT NOT NULL,  
    act_fname VARCHAR(255) NOT NULL,  
    act_lname VARCHAR(255) NOT NULL,  
    act_gender CHAR(10) NOT NULL DEFAULT 'Male',  
    primary key (mov_id,act_id)  
);
```

```
INSERT INTO  
movies_cast(mov_id,act_id,act_fname,act_lname,act_gender  
)
```

```
VALUES(1,3,'Rakshit','Shetty','Male');
```

```
INSERT INTO movies_cast  
VALUES(1,4,'Rashmika','Mandanna','Female');
```

```
INSERT INTO movies_cast  
VALUES(4,6,'Sushant','Rajput','Male');
```

```
INSERT INTO movies_cast  
VALUES(5,1,'Deepika','Padukone','Female');
```

```
INSERT INTO movies_cast  
VALUES(5,2,'Ranveer','Singh','Male');
```

```
INSERT INTO movies_cast  
VALUES(5,5,'Shahid','Kapoor','Male');
```

```
INSERT INTO movies_cast  
VALUES(6,7,'Keerthy','Suresh','Female');
```

```
INSERT INTO movies_cast  
VALUES(7,7,'Keerthy','Suresh','Female');
```

```
ALTER TABLE movies_cast ADD full_name VARCHAR(255) AS  
(concat(act_fname, ' ',act_lname));
```

```
SELECT  
movies_1.mov_id,movies_1.mov_title,movies_cast.act_fname,  
movies_cast.act_lname
```

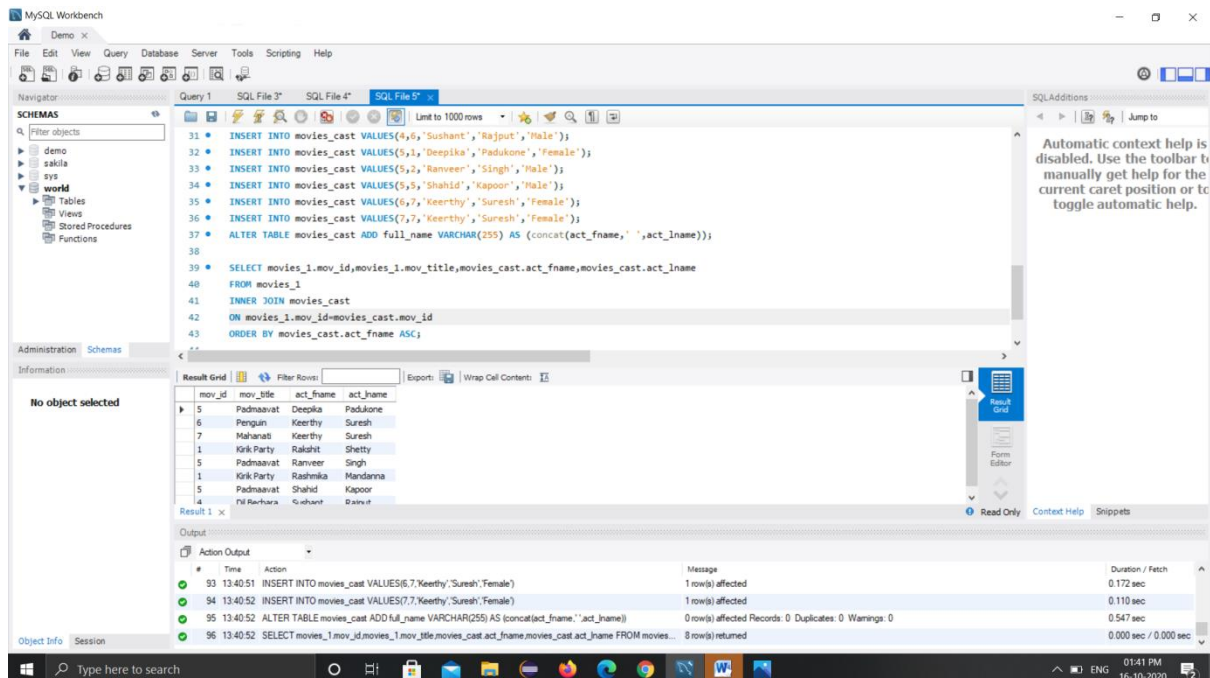
```
FROM movies_1
```

```
INNER JOIN movies_cast
```

```
ON movies_1.mov_id=movies_cast.mov_id
```

```
ORDER BY movies_cast.act_fname ASC;
```

OUTPUT:



b)

```

CREATE TABLE movies_1 (
mov_id INT NOT NULL PRIMARY KEY,
mov_title CHAR(45) NOT NULL,
mov_rel_date_year DATE NOT NULL,
mov_lang CHAR(45) NOT NULL,
mov_country CHAR(45) NOT NULL,
mov_duration INT NOT NULL,
Constraint uq_mov_id Unique (mov_id)
);

```

```

INSERT INTO movies_1(mov_id,mov_title,mov_rel_date_year
,mov_lang ,mov_country
,mov_duration)
VALUES(1,'Kirik Party','2018-06-15','Kannada','India','2');

```

```
INSERT INTO movies_1 VALUES(2,'Parasite','2019-06-18','Korean','South Korea','3');
```

```
INSERT INTO movies_1 VALUES(3,'Anabell','2008-07-14','English','America','2');
```

```
INSERT INTO movies_1 VALUES(4,'Dil Bechara','2020-07-10','Hindi','India','2');
```

```
INSERT INTO movies_1 VALUES(5,'Padmaavat','2017-03-12','Hindi','India','2');
```

```
INSERT INTO movies_1 VALUES(6,'Penguin','2020-06-11','Tamil','India','2');
```

```
INSERT INTO movies_1 VALUES(7,'Mahanati','2018-03-11','Tamil','India','2');
```

```
CREATE TABLE movie_director(
```

```
mov_id INT NOT NULL,
```

```
dir_fname VARCHAR(255) NOT NULL,
```

```
dir_lname VARCHAR(255) NOT NULL,
```

```
FOREIGN KEY(mov_id) REFERENCES movies_1(mov_id)
```

```
);
```

```
INSERT INTO movie_director(mov_id,dir_fname,dir_lname)
```

```
VALUES (1,'Rishab','Shetty');
```

```
INSERT INTO movie_director VALUES(2,'Bong','Joon-ho');
```

```
INSERT INTO movie_director VALUES(5,'Sanjay','Bhansali');
```

SELECT

movies_1.mov_id,movies_1.mov_title,movie_director.dir_fn
ame,movie_director.dir_lname

FROM movies_1

INNER JOIN movie_director

ON movies_1.mov_id=movie_director.mov_id

ORDER BY mov_title DESC;

OUTPUT:

The screenshot shows the MySQL Workbench interface. The 'Query' tab is active, displaying a SQL script. The script includes table definitions for 'movie_director' and 'movies_1', followed by INSERT statements for data, and a SELECT statement with an INNER JOIN. The 'Results' tab shows the output of the SELECT query, which is a table with 4 columns: mov_id, mov_title, dir_fname, and dir_lname. The results are ordered by mov_title in descending order.

mov_id	mov_title	dir_fname	dir_lname
2	Parasite	Bong	Joon-ho
5	Padmaavat	Sanjay	Bhansali
1	Kirk Party	Rohab	Shetty

The 'Output' tab at the bottom shows the execution log, including the time taken for each statement and the number of rows affected or returned.

c)

CREATE TABLE movies_1 (

mov_id INT NOT NULL PRIMARY KEY,

mov_title CHAR(45) NOT NULL,

mov_rel_date_year DATE NOT NULL,

mov_lang CHAR(45) NOT NULL,

mov_country CHAR(45) NOT NULL,

mov_duration INT NOT NULL,

Constraint uq_mov_id Unique (mov_id)

);

INSERT INTO movies_1(mov_id,mov_title,mov_rel_date_year
,mov_lang ,mov_country

,mov_duration)

VALUES(1,'Kirik Party','2018-06-15','Kannada','India','2');

INSERT INTO movies_1 VALUES(2,'Parasite','2019-06-
18','Korean','South Korea','3');

INSERT INTO movies_1 VALUES(3,'Anabell','2008-07-
14','English','America','2');

INSERT INTO movies_1 VALUES(4,'Dil Bechara','2020-07-
10','Hindi','India','2');

INSERT INTO movies_1 VALUES(5,'Padmaavat','2017-03-
12','Hindi','India','2');

INSERT INTO movies_1 VALUES(6,'Penguin','2020-06-
11','Tamil','India','2');

INSERT INTO movies_1 VALUES(7,'Mahanati','2018-03-
11','Tamil','India','2');

CREATE TABLE movies_award1(

Award_id INT NOT NULL PRIMARY KEY,

mov_id INT NOT NULL,

title VARCHAR(255) NOT NULL,

FOREIGN KEY (mov_id) REFERENCES movies_1(mov_id)

);

```
INSERT INTO movies_award1(Award_id,mov_id,title)
```

```
VALUES(1,2,'Oscar');
```

```
INSERT INTO movies_award1 VALUES(2,5,'IIFA awards');
```

```
INSERT INTO movies_award1 VALUES(3,7,'National Filmfare  
award');
```

```
INSERT INTO movies_award1 VALUES(4,1,'Filmfare award');
```

```
SELECT
```

```
movies_1.mov_id,movies_1.mov_title,movies_award1.title
```

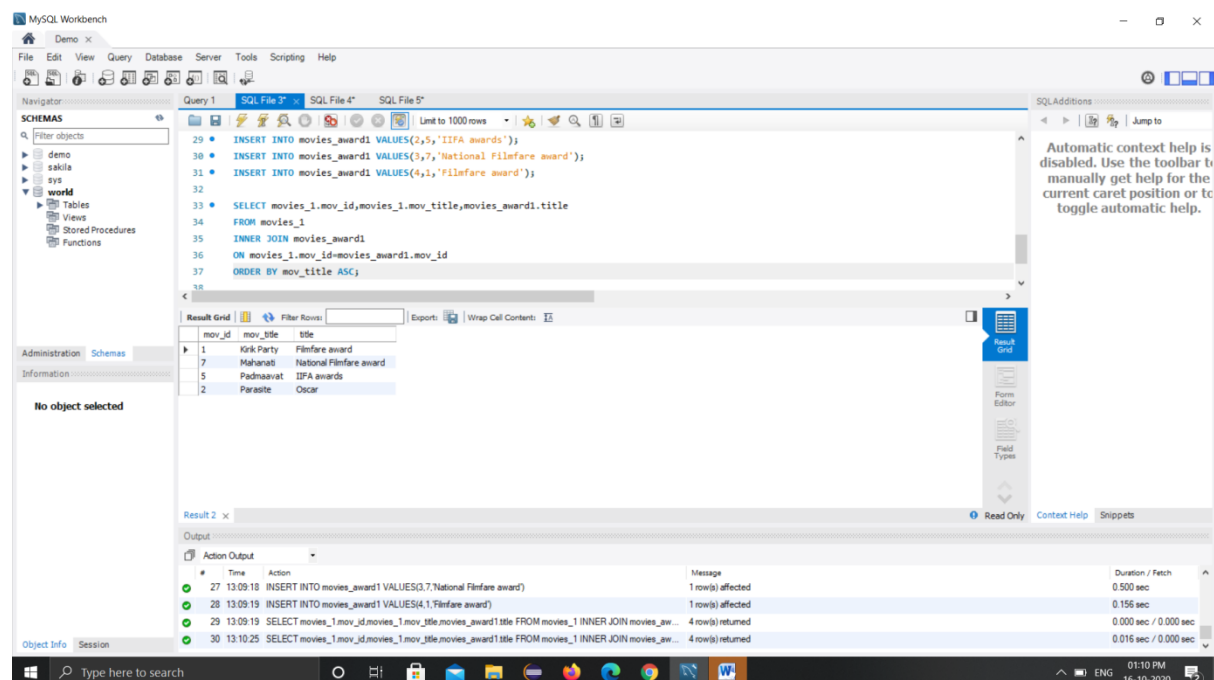
```
FROM movies_1
```

```
INNER JOIN movies_award1
```

```
ON movies_1.mov_id=movies_award1.mov_id
```

```
ORDER BY mov_title ASC;
```

OUTPUT:



The screenshot displays the MySQL Workbench interface. The main editor shows a series of SQL queries. The first three are INSERT statements for the 'movies_award1' table. The fourth is a SELECT statement that joins 'movies_1' and 'movies_award1' on 'mov_id' and orders the results by 'mov_title' in ascending order.

The output of the SELECT query is shown in the 'Result Grid' tab, displaying the following data:

mov_id	mov_title	title
1	Kirk Party	Filmfare award
7	Mahanati	National Filmfare award
5	Padmaavat	IIFA awards
2	Parasite	Oscar

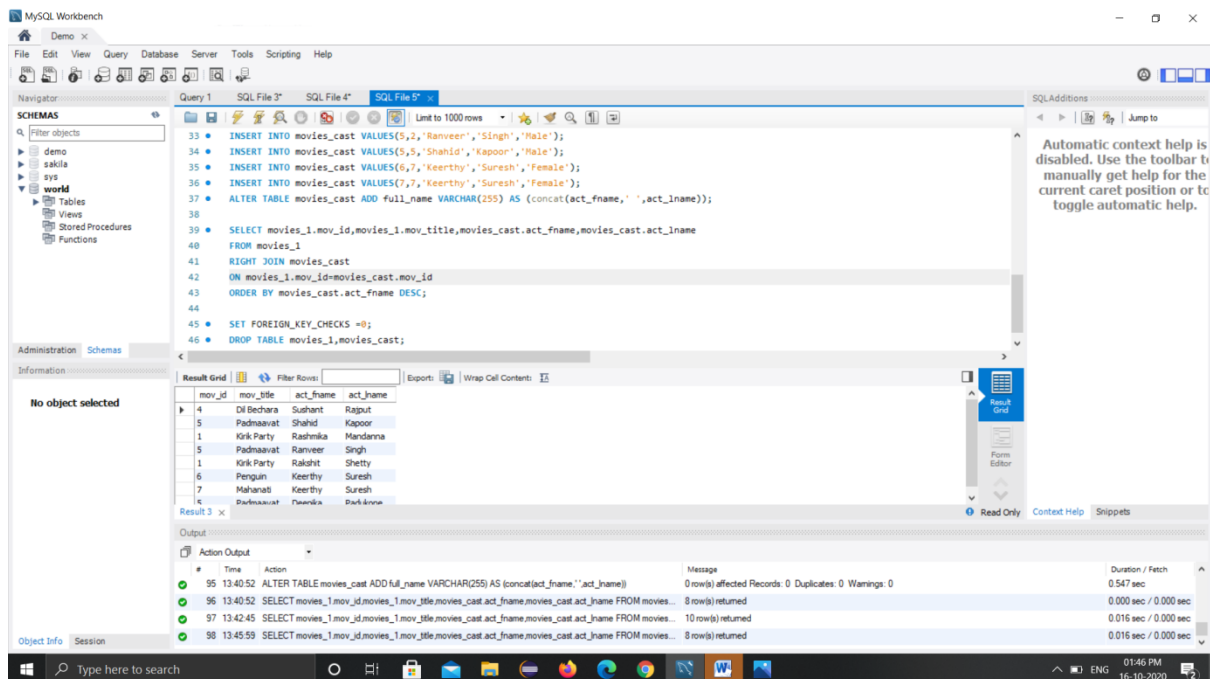
The 'Action Output' tab at the bottom shows the execution details of the queries, including the time taken and the number of rows affected or returned.

2.RIGHT JOIN

a)

```
SELECT
movies_1.mov_id,movies_1.mov_title,movies_cast.act_fname,
movies_cast.act_lname
FROM movies_1
RIGHT JOIN movies_cast
ON movies_1.mov_id=movies_cast.mov_id
ORDER BY movies_cast.act_fname DESC;
```

OUTPUT:



The screenshot displays the MySQL Workbench interface. The SQL Editor contains a query that inserts data into the `movies_cast` table and then performs a right join between `movies_1` and `movies_cast` on the `mov_id` column, ordered by `act_fname` in descending order. The output pane shows the results of the query, which includes the `act_fname` and `act_lname` for each movie.

mov_id	mov_title	act_fname	act_lname
4	Di Bechara	Sushant	Rajput
5	Padmaavat	Shahid	Kapoor
1	Kirk Party	Rashmika	Mandanna
5	Padmaavat	Ranveer	Singh
1	Kirk Party	Rakshit	Shetty
6	Penguin	Keerthy	Suresh
7	Mahanadi	Keerthy	Suresh
8	Padmaavat	Ranveer	Shetty

The output pane also shows the execution time and the number of rows returned for each statement.

b)

SELECT

movies_1.mov_id,movies_1.mov_title,movie_director.dir_fname,movie_director.dir_lname

FROM movies_1

RIGHT JOIN movie_director

ON movies_1.mov_id=movie_director.mov_id

ORDER BY mov_id DESC;

OUTPUT:

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

```
26 FOREIGN KEY(mov_id) REFERENCES movies_1(mov_id)
27 );
28 INSERT INTO movie_director(mov_id,dir_fname,dir_lname)
29 VALUES (1,'Rishab','Shetty');
30 INSERT INTO movie_director VALUES(2,'Bong','Joon-ho');
31 INSERT INTO movie_director VALUES(3,'Sanjay','Bhansali');
32
33 SELECT movies_1.mov_id,movies_1.mov_title,movie_director.dir_fname,movie_director.dir_lname
34 FROM movies_1
35 RIGHT JOIN movie_director
36 ON movies_1.mov_id=movie_director.mov_id
37 ORDER BY mov_id DESC;
```

The Results window shows the output of the query:

mov_id	mov_title	dir_fname	dir_lname
5	Padmaavat	Sanjay	Bhansali
2	Parasite	Bong	Joon-ho
1	Kirk Party	Rishab	Shetty

The Action Output window shows the execution of the query:

#	Time	Action	Message	Duration / Fetch
66	13:27:39	SELECT movies_1.mov_id,movies_1.mov_title,movie_director.dir_fname,movie_director.dir_lname FROM movies_1 RIGHT JOIN movie_director ON movies_1.mov_id=movie_director.mov_id ORDER BY mov_id DESC;	Error Code: 1054. Unknown column 'movie_director.dir_fname' in 'order clause'	0.031 sec
67	13:28:26	SELECT movies_1.mov_id,movies_1.mov_title,movie_director.dir_fname,movie_director.dir_lname FROM movies_1 RIGHT JOIN movie_director ON movies_1.mov_id=movie_director.mov_id ORDER BY mov_id DESC;	7 row(s) returned	0.016 sec / 0.000 sec
68	13:29:54	SELECT movies_1.mov_id,movies_1.mov_title,movie_director.dir_fname,movie_director.dir_lname FROM movies_1 RIGHT JOIN movie_director ON movies_1.mov_id=movie_director.mov_id ORDER BY mov_id DESC;	3 row(s) returned	0.000 sec / 0.000 sec
69	13:32:07	SELECT movies_1.mov_id,movies_1.mov_title,movie_director.dir_fname,movie_director.dir_lname FROM movies_1 RIGHT JOIN movie_director ON movies_1.mov_id=movie_director.mov_id ORDER BY mov_id DESC;	3 row(s) returned	0.000 sec / 0.000 sec

c)

SELECT

movies_1.mov_id,movies_1.mov_title,movies_award1.title

FROM movies_1

RIGHT JOIN movies_award1

ON movies_1.mov_id=movies_award1.mov_id

ORDER BY movies_award1.title desc;

OUTPUT:

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
29 • INSERT INTO movies_award1 VALUES(2,5,'IIFA awards');
30 • INSERT INTO movies_award1 VALUES(3,7,'National Filmfare award');
31 • INSERT INTO movies_award1 VALUES(4,1,'Filmfare award');
32
33 • SELECT movies_1.mov_id,movies_1.mov_title,movies_award1.title
34 FROM movies_1
35 RIGHT JOIN movies_award1
36 ON movies_1.mov_id=movies_award1.mov_id
37 ORDER BY movies_award1.title desc;
```

The Results window displays the output of the query:

mov_id	mov_title	title
2	Parasite	Oscar
7	Mahanati	National Filmfare award
5	Padmaavat	IIFA awards
1	Kirk Party	Filmfare award

The bottom panel shows the Action Output window with the following log:

#	Time	Action	Message	Duration / Fetch
29	13:09:19	SELECT movies_1.mov_id,movies_1.mov_title,movies_award1.title FROM movies_1 INNER JOIN movies_award1	4 row(s) returned	0.000 sec / 0.000 sec
30	13:10:25	SELECT movies_1.mov_id,movies_1.mov_title,movies_award1.title FROM movies_1 INNER JOIN movies_award1	4 row(s) returned	0.016 sec / 0.000 sec
31	13:11:56	SELECT movies_1.mov_id,movies_1.mov_title,movies_award1.title FROM movies_1 LEFT JOIN movies_award1	7 row(s) returned	0.000 sec / 0.000 sec
32	13:13:42	SELECT movies_1.mov_id,movies_1.mov_title,movies_award1.title FROM movies_1 RIGHT JOIN movies_award1	4 row(s) returned	0.000 sec / 0.000 sec

3.LEFT JOIN

a)

SELECT

movies_1.mov_id,movies_1.mov_title,movies_cast.act_fname,
movies_cast.act_lname

FROM movies_1

LEFT JOIN movies_cast

ON movies_1.mov_id=movies_cast.mov_id

ORDER BY movies_cast.act_fname DESC;

OUTPUT:

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

```
32 INSERT INTO movies_cast VALUES(5,1,'Deepika','Padukone','Female');
33 INSERT INTO movies_cast VALUES(5,2,'Ranveer','Singh','Male');
34 INSERT INTO movies_cast VALUES(5,5,'Shahid','Kapoor','Male');
35 INSERT INTO movies_cast VALUES(6,5,'Keerthy','Suresh','Female');
36 INSERT INTO movies_cast VALUES(7,7,'Keerthy','Suresh','Female');
37 ALTER TABLE movies_cast ADD full_name VARCHAR(255) AS (concat(act_fname,' ',act_lname));
38
39 SELECT movies_1.mov_id,movies_1.mov_title,movies_cast.act_fname,movies_cast.act_lname
40 FROM movies_1
41 LEFT JOIN movies_cast
42 ON movies_1.mov_id=movies_cast.mov_id
43 ORDER BY movies_cast.act_fname DESC;
44
45 SET FOREIGN_KEY_CHECKS =0;
46 DROP TABLE movies_1,movies_cast;
47 SET FOREIGN_KEY_CHECKS =1;
```

The Result Grid shows the output of the query:

mov_id	mov_title	act_fname	act_lname
4	Di Dhadha	Sushant	Rajput
5	Padmaavat	Shahid	Kapoor
1	Kirk Party	Rashmika	Mandanna
5	Padmaavat	Ranveer	Singh
1	Kirk Party	Rakshit	Shetty

The Output pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
243	16:58:07	INSERT INTO movies_cast VALUES(5,1,'Deepika','Padukone','Female')	1 row(s) affected	0.219 sec
249	16:58:08	INSERT INTO movies_cast VALUES(7,7,'Keerthy','Suresh','Female')	1 row(s) affected	0.141 sec
250	16:58:08	ALTER TABLE movies_cast ADD full_name VARCHAR(255) AS (concat(act_fname,' ',act_lname))	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.009 sec
251	16:58:08	SELECT movies_1.mov_id,movies_1.mov_title,movies_cast.act_fname,movies_cast.act_lname FROM movies_1 LEFT JOIN movies_cast ON movies_1.mov_id=movies_cast.mov_id ORDER BY movies_cast.act_fname DESC	10 row(s) returned	0.266 sec / 0.000 sec

b)

SELECT

movies_1.mov_id,movies_1.mov_title,movie_director.dir_fname,movie_director.dir_lname

FROM movies_1

LEFT JOIN movie_director

ON movies_1.mov_id=movie_director.mov_id

ORDER BY movie_director.dir_fname DESC;

OUTPUT:

The screenshot shows the MySQL Workbench interface. The SQL Editor contains a query that inserts data into the 'movie_director' table and then selects data from 'movies_1' joined with 'movie_director'.

```
25 dir_fname VARCHAR(255) NOT NULL;
26 FOREIGN KEY(mov_id) REFERENCES movies_1(mov_id)
27 );
28 INSERT INTO movie_director(mov_id,dir_fname,dir_lname)
29 VALUES (1,'Rishab','Shetty');
30 INSERT INTO movie_director VALUES(2,'Bong','Joon-ho');
31 INSERT INTO movie_director VALUES(3,'Sanjay','Bhansali');
32
33 SELECT movies_1.mov_id,movies_1.mov_title,movie_director.dir_fname,movie_director.dir_lname
34 FROM movies_1
35 LEFT JOIN movie_director
36 ON movies_1.mov_id=movie_director.mov_id
37 ORDER BY movie_director.dir_fname DESC;
```

The Results window displays the output of the query, showing a list of movies and their directors, ordered by director's first name in descending order.

mov_id	mov_title	dir_fname	dir_lname
5	Padmaavat	Sanjay	Bhansali
1	Kirk Party	Rishab	Shetty
2	Parasite	Bong	Joon-ho
3	Anabelle		
4	Dil Bechara		
6	Penguin		
7	Mahanati		

The Output window shows the execution log, including the time taken for each statement and the number of rows affected.

#	Time	Action	Message	Duration / Fetch
64	13:27:39	INSERT INTO movie_director VALUES(2,'Bong','Joon-ho')	1 row(s) affected	0.094 sec
65	13:27:39	INSERT INTO movie_director VALUES(3,'Sanjay','Bhansali')	1 row(s) affected	0.094 sec
66	13:27:39	SELECT movies_1.mov_id,movies_1.mov_title,movie_director.dir_fname,movie_director.dir_lname FROM movies_1 LEFT JOIN movie_director ON movies_1.mov_id=movie_director.mov_id ORDER BY movie_director.dir_fname DESC	Error Code: 1054. Unknown column 'movie_director.dir_fname' in 'order clause'	0.031 sec
67	13:28:26	SELECT movies_1.mov_id,movies_1.mov_title,movie_director.dir_fname,movie_director.dir_lname FROM movies_1 LEFT JOIN movie_director ON movies_1.mov_id=movie_director.mov_id ORDER BY movie_director.dir_fname DESC	7 row(s) returned	0.016 sec / 0.000 sec

c)

SELECT

movies_1.mov_id,movies_1.mov_title,movies_award1.title

FROM movies_1

RIGHT JOIN movies_award1

ON movies_1.mov_id=movies_award1.mov_id

ORDER BY mov_title ASC;

OUTPUT:

The screenshot displays the MySQL Workbench interface. The central pane shows a SQL query in 'Query 1' that inserts data into the 'movies_award1' table and then performs a right join between 'movies_1' and 'movies_award1' on 'mov_id', ordered by 'mov_title' in ascending order. The 'Result Grid' below the query shows the output of the join, with columns 'mov_id', 'mov_title', and 'title'. The results are as follows:

mov_id	mov_title	title
3	Anabel	
4	Di Bechara	
1	Kirk Party	Filmfare award
7	Mahanati	National Filmfare award
5	Padmaavat	IFA awards
2	Parasite	Oscar
6	Penguin	

The bottom pane shows the 'Action Output' with a log of SQL statements and their execution details, including timestamps and row counts.