

# DBMS Assignment-2

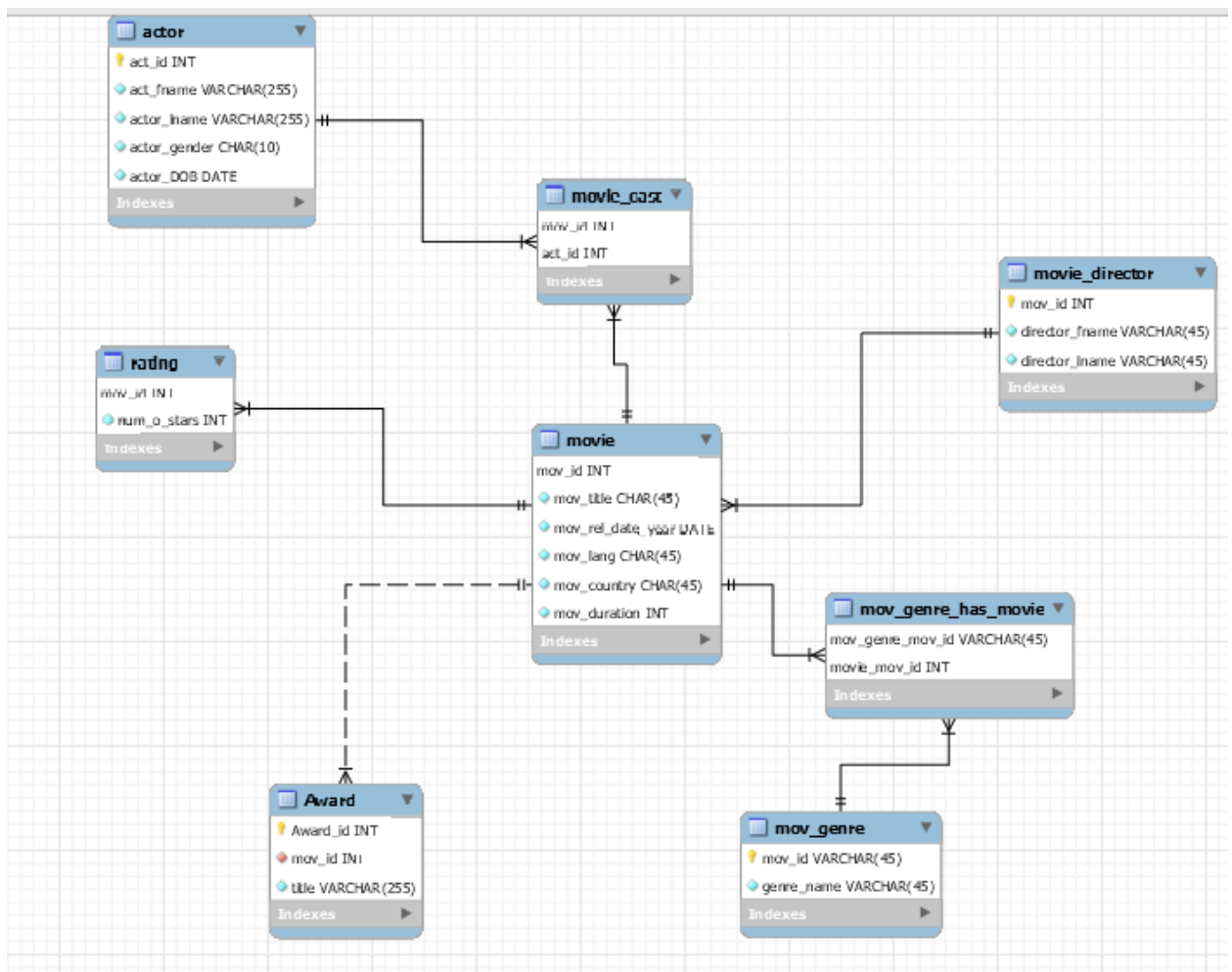
1. Showcased a many-many relation between movie and mov\_genre using mov\_genre\_has\_movie entity.

## 2. Composite Keys:

In movie\_cast entity: Primarykey(mov\_id,act\_id)

## Weak Entity:

Award,mov\_genre\_has\_movie.



3.

### a. Checking Primary key Constraint

In table there are two primary keys , when trying to insert duplicate value for mov\_id,act\_id:

The screenshot shows the MySQL Workbench interface. The main editor displays a SQL script to create a table named 'cast' in the 'movies' database. The table has two columns: 'mov\_id' and 'act\_id', both of type 'INT NOT NULL'. A primary key is defined on the combination of 'mov\_id' and 'act\_id'. The script then inserts five rows of data into the 'cast' table.

```
1 CREATE TABLE movies.cast (
2     mov_id INT NOT NULL,
3     act_id INT NOT NULL,
4     primary key (mov_id,act_id)
5 );
6 INSERT INTO movies.cast(act_id,mov_id)
7 VALUES(1,300);
8 INSERT INTO movies.cast VALUES(2,500);
9 INSERT INTO movies.cast VALUES(2,600);
10 INSERT INTO movies.cast VALUES(3,700);
11 INSERT INTO movies.cast VALUES(2,500);
```

The Output window at the bottom shows the execution results of the SQL script. It lists the actions performed, the time taken, and the number of rows affected. The final row shows an error message: "Error Code: 1062. Duplicate entry '2-500' for key 'cast.PRIMARY'" because the combination of 'mov\_id' (2) and 'act\_id' (500) already exists in the table.

#	Time	Action	Message	Duration / Fetch
3	15:46:44	INSERT INTO movies.cast(act_id,mov_id) VALUES(1,300)	1 row(s) affected	0.125 sec
4	15:46:44	INSERT INTO movies.cast VALUES(2,500)	1 row(s) affected	0.109 sec
5	15:46:44	INSERT INTO movies.cast VALUES(2,600)	1 row(s) affected	0.187 sec
6	15:46:44	INSERT INTO movies.cast VALUES(3,700)	1 row(s) affected	0.140 sec
7	15:47:50	INSERT INTO movies.cast VALUES(2,500)	Error Code: 1062. Duplicate entry '2-500' for key 'cast.PRIMARY'	0.000 sec

## b. Checking Unique and Null Constraint

### Inserting data into table

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' panel with a tree view containing 'movie', 'movies', 'mydb', 'sakila', 'sys', and 'world'. The main editor window shows a SQL script for creating a table named 'movies.tab' and inserting data into it. The script is as follows:

```
1 CREATE TABLE movies.tab (  
2     mov_id INT NOT NULL,  
3     mov_title CHAR(45) NOT NULL,  
4     mov_rel_date_year DATE NOT NULL,  
5     mov_lang CHAR(45) NOT NULL,  
6     mov_country CHAR(45) NOT NULL,  
7     mov_duration INT NOT NULL,  
8     Constraint uq_mov_id Unique (mov_id)  
9 );  
10  
11 INSERT INTO movies.tab(mov_id,mov_title,mov_rel_date_year ,mov_lang ,mov_country ,mov_duration)  
12     VALUES(300,'chakde','2017-06-15','hindi','india','2');  
13 INSERT INTO movies.tab VALUES(400,'gold','2016-06-18','hindi','india','3');  
14 INSERT INTO movies.tab VALUES(500,'3 idiots','2008-07-14','hindi','india','2');  
15 INSERT INTO movies.tab VALUES(600,'taare zameen par','2008-07-10','hindi','india','2');  
16  
17 SELECT * FROM movies.tab;
```

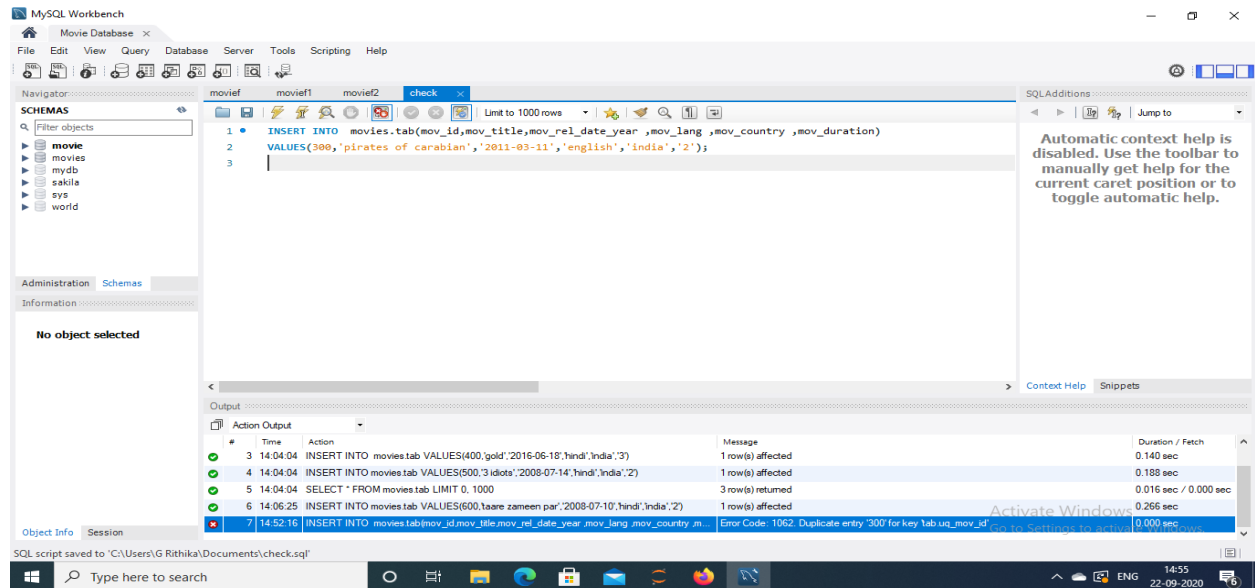
The right sidebar shows the 'SQLAdditions' panel with a message: 'Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.'

The bottom panel shows the 'Output' window with the following data:

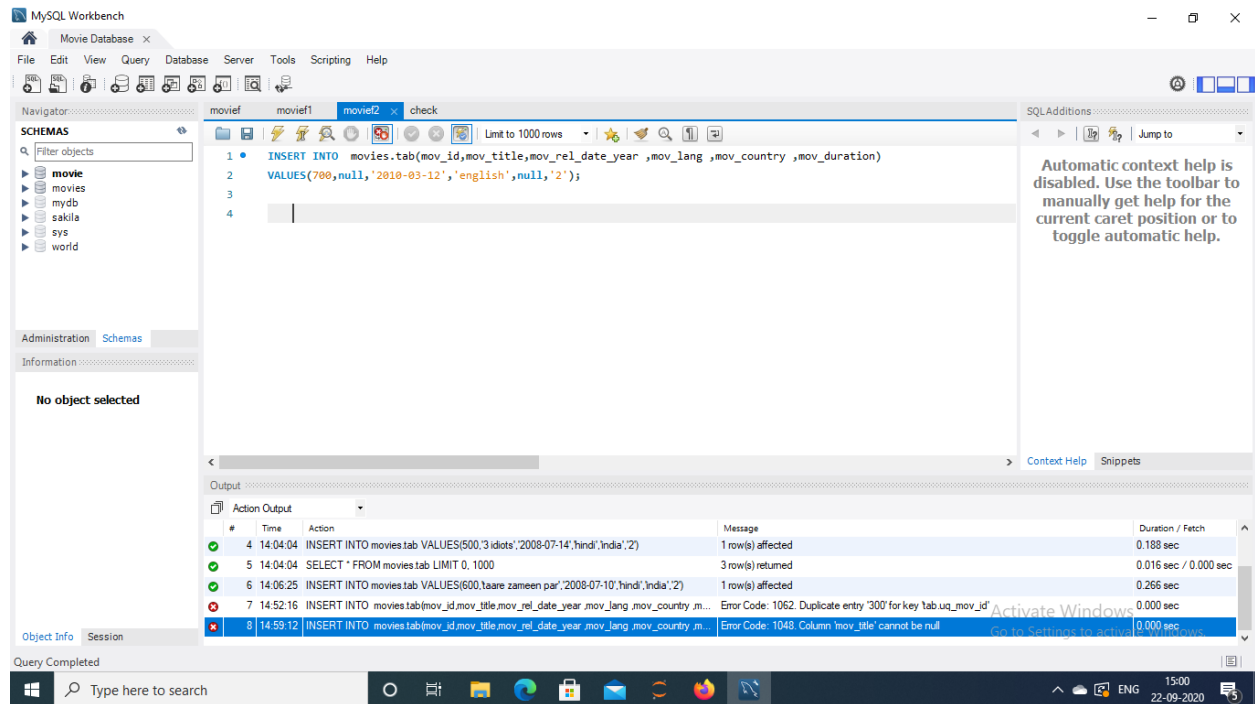
#	Time	Action	Message	Duration / Fetch
2	14:04:04	INSERT INTO movies.tab(mov_id,mov_title,mov_rel_date_year ,mov_lang ,mov_country ,mov_duration)	1 row(s) affected	0.125 sec
3	14:04:04	INSERT INTO movies.tab VALUES(400,'gold','2016-06-18','hindi','india','3')	1 row(s) affected	0.140 sec
4	14:04:04	INSERT INTO movies.tab VALUES(500,'3 idiots','2008-07-14','hindi','india','2')	1 row(s) affected	0.188 sec
5	14:04:04	SELECT * FROM movies.tab LIMIT 0, 1000	3 row(s) returned	0.016 sec / 0.000 sec
6	14:06:25	INSERT INTO movies.tab VALUES(600,'taare zameen par','2008-07-10','hindi','india','2')	1 row(s) affected	0.266 sec

The bottom status bar shows 'Query Completed' and the Windows taskbar with the date '22-09-2020' and time '14:10'.

When trying to insert duplicate value for mov\_id:



When trying to insert null value for mov\_title:



## c. Checking Default Constraint:

1. act\_gender has mentioned with default value. When values are inserted it gives value for act\_gender by default in result grid.

MySQL Workbench interface showing a SQL query execution. The query is:

```
1 CREATE TABLE movies.actor(  
2   act_id INT NOT NULL,  
3   act_fname VARCHAR(255) NOT NULL,  
4   act_lname VARCHAR(255) NOT NULL,  
5   act_gender CHAR(10) NOT NULL DEFAULT 'Male',  
6   act_DOB DATE NOT NULL  
7 );  
8 INSERT INTO movies.actor(act_id,act_fname,act_lname,act_DOB)  
9 VALUES(1,'shahruk','khan','1965-05-18');  
10  
11 SELECT * FROM movies.actor;
```

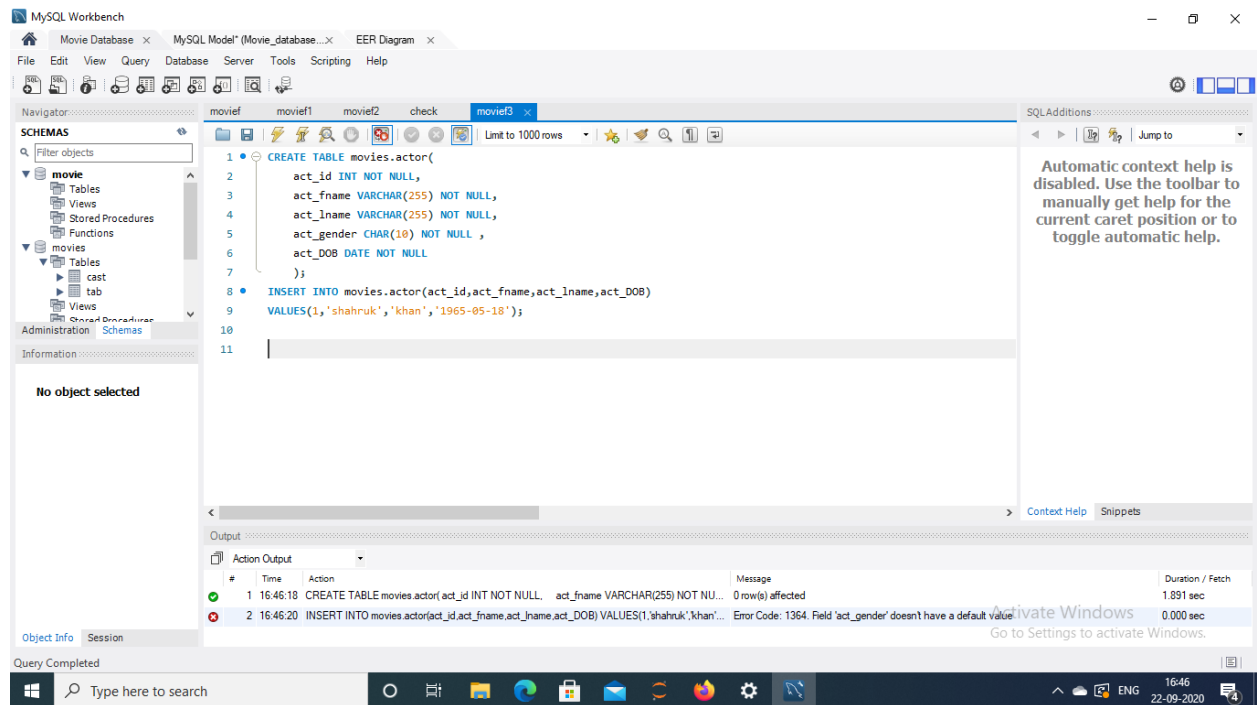
The result grid shows the following data:

act_id	act_fname	act_lname	act_gender	act_DOB
1	shahruk	khan	Male	1965-05-18

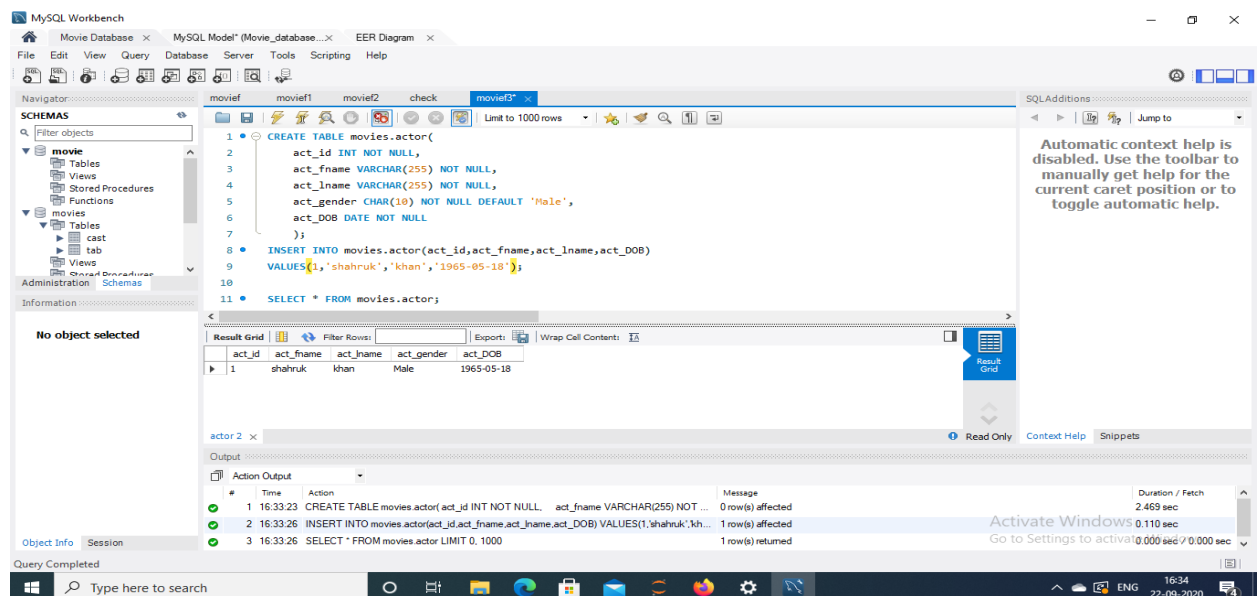
The output pane shows the execution steps:

#	Time	Action	Message	Duration / Fetch
1	16:33:23	CREATE TABLE movies.actor (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', act_DOB DATE NOT NULL)	0 row(s) affected	2.469 sec
2	16:33:26	INSERT INTO movies.actor (act_id, act_fname, act_lname, act_DOB) VALUES (1, 'shahruk', 'khan', '1965-05-18')	1 row(s) affected	0.110 sec
3	16:33:26	SELECT * FROM movies.actor LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

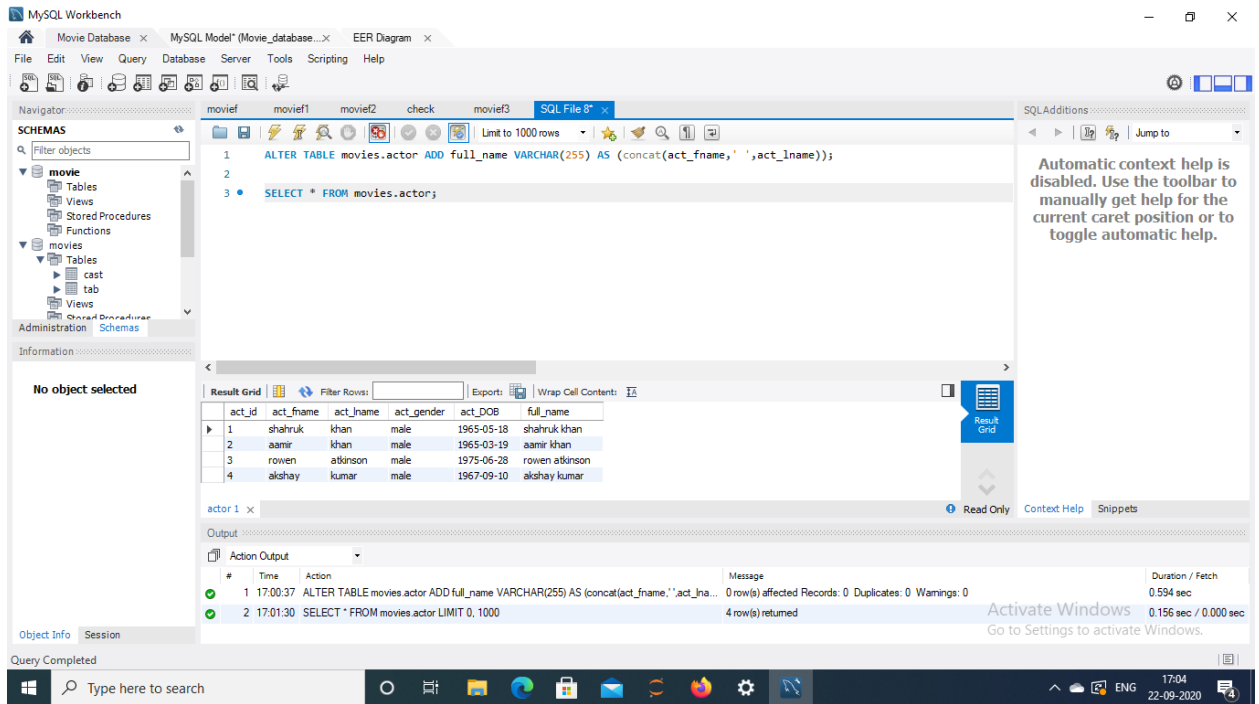
2. When Trying to insert values into table in which the attribute mov\_gender doesn't have any default value :



## 4. Derived Attributes: Inserting data into Table



- a. full\_name attribute of table :Dependent on/Derived from concatenation of act\_fname and act\_lname attributes of table.



## 5. Inserting tuples into dependant table of a foreign key constraint first.

award table is dependent on tab table for getting mov\_id which is the foreign key of the table. If we insert data into mov\_id column of award table without inserting any data into tab table then :

MySQL Workbench

Movie Database x MySQL Model (Movie\_database.m.x) EER Diagram x

File Edit View Query Database Server Tools Scripting Help

Navigator

Filter objects

Schemas

- Stored Procedures
- Functions
- Tables
  - actor
  - cast
  - tab
- Views
- Stored Procedures
- Functions

Administration Schemas

Information

No object selected

Result Grid

Award_id	mov_id	title
20	500	Best Actor
2000	1000	

award 4 x

Apply Revert

Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	19:15:22	CREATE TABLE movies.award(Award_id INT NOT NULL PRIMARY KEY, mov_id INT NOT NULL, title VARCHAR(255) NOT NULL, FOREIGN KEY (mov_id) REFERENCES movies.tab(mov_id));	0 row(s) affected	1.813 sec
2	19:15:24	INSERT INTO movies.award(Award_id,mov_id,title) VALUES(10,450,'Best Actor');	Error Code: 1452. Cannot add or update a child row: a foreign key constraint fails ('movies.' 'aw...	0.297 sec
3	19:16:49	INSERT INTO movies.award VALUES(20,500,'Best Actor');	1 row(s) affected	0.187 sec
4	19:16:52	SELECT * FROM movies.award LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec

Query Completed

Type here to search

19:20 22-09-2020