IMBD database

## Problem Statement:

Using MySQL, design a database whose name is IMDB. Create proper MySQL tables, Primary Key, Foreign Key, add data into the MySQL tables and do the following as given below

1) 1. Movie should have multiple media (Video or Image)

2) 2. Movie can belong to multiple Genre

3) 3. Movie can have multiple reviews and Review can belongs to a user

4) 4. Artist can have multiple skills

5) 5. Artist can perform multiple roles in a single film

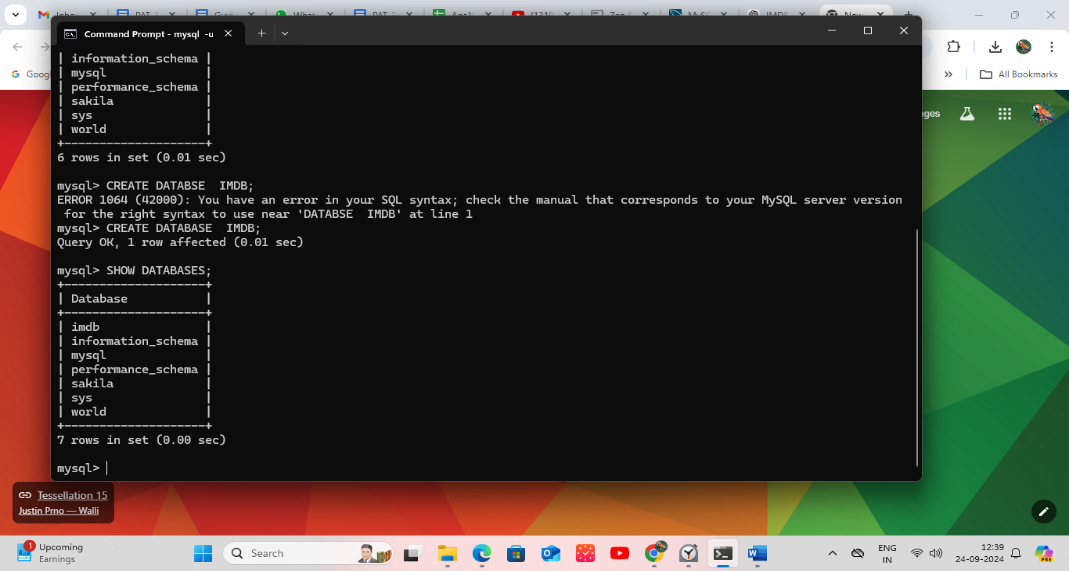
## Solution SQL Query:

Step 1: Create the Database

DROP DATABASE IF EXISTS IMDB;

CREATE DATABASE IMDB;

USE IMDB;



Step 2: Create the Tables

Movies Table:

---------------------------------------------------

CREATE TABLE Movies (

movie\_id INT AUTO\_INCREMENT PRIMARY KEY,

title VARCHAR(255),

release\_year INT

);

---------------------------------------------------

Media Table:

CREATE TABLE Media (

media\_id INT AUTO\_INCREMENT PRIMARY KEY,

movie\_id INT,

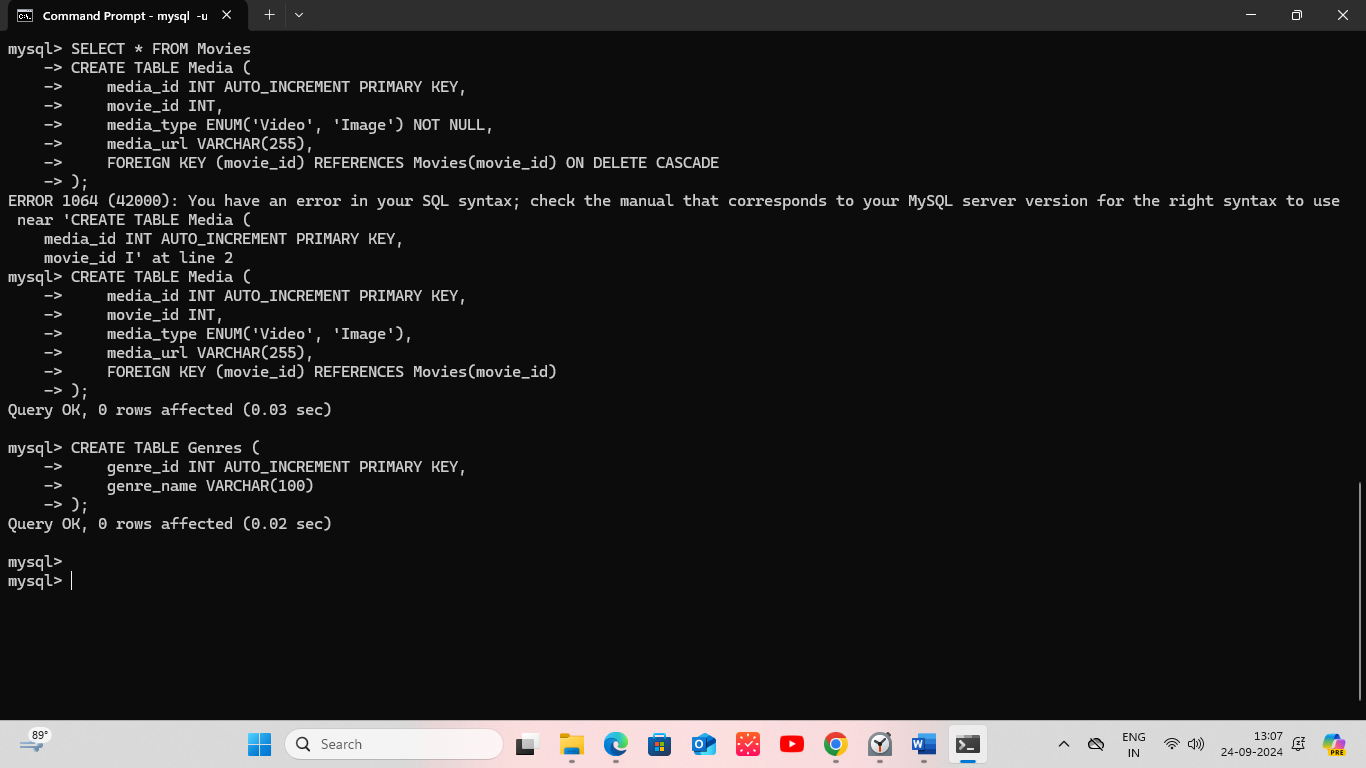
media\_type ENUM('Video', 'Image'),

media\_url VARCHAR(255),

FOREIGN KEY (movie\_id) REFERENCES Movies(movie\_id)

);

---------------------------------------------------



Genres Table:

CREATE TABLE Genres (

genre\_id INT AUTO\_INCREMENT PRIMARY KEY,

genre\_name VARCHAR(100)

);

---------------------------------------------------

Movie\_Genres Table:

CREATE TABLE Movie\_Genres (

movie\_id INT,

genre\_id INT,

PRIMARY KEY (movie\_id, genre\_id),

FOREIGN KEY (movie\_id) REFERENCES Movies(movie\_id),

FOREIGN KEY (genre\_id) REFERENCES Genres(genre\_id)

);

---------------------------------------------------

Users Table:

CREATE TABLE Users (

user\_id INT AUTO\_INCREMENT PRIMARY KEY,

username VARCHAR(255)

);

---------------------------------------------------

Reviews Table:

CREATE TABLE Reviews (

review\_id INT AUTO\_INCREMENT PRIMARY KEY,

movie\_id INT,

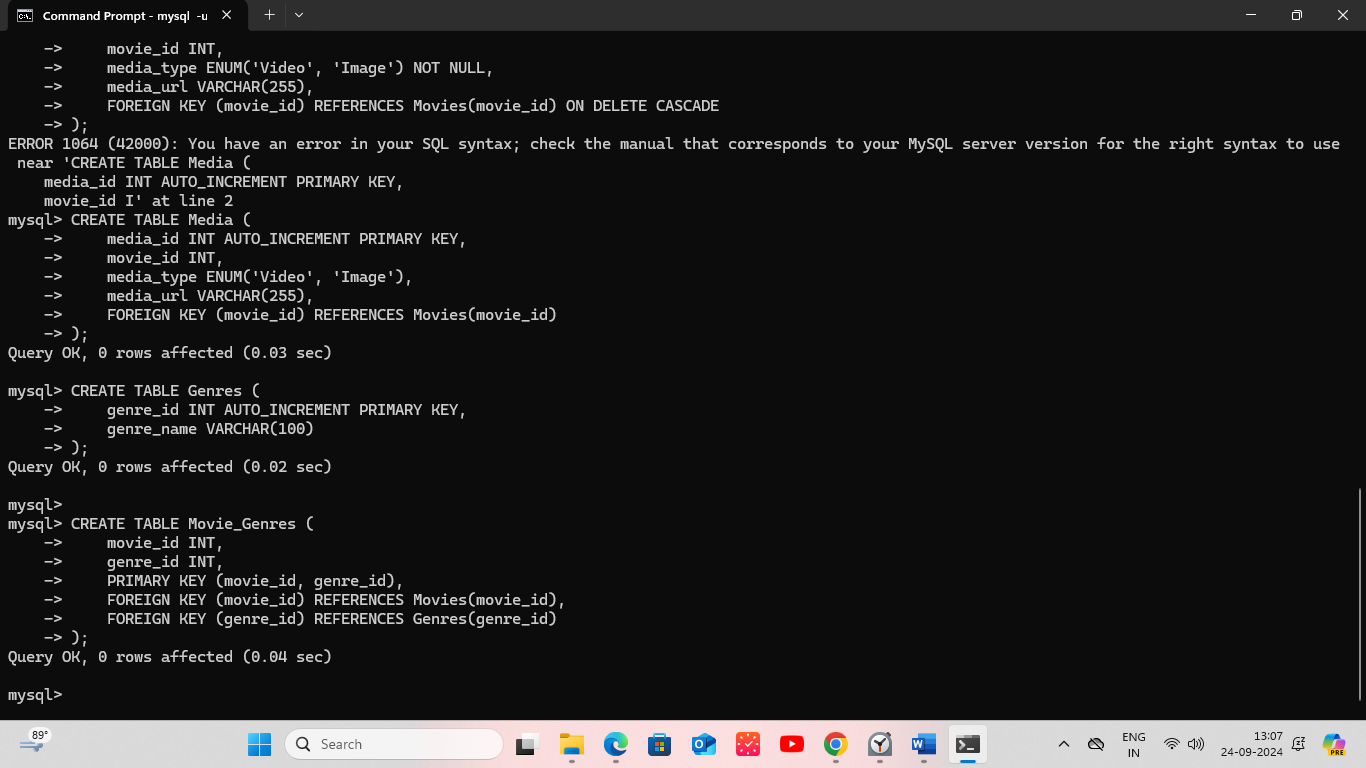
user\_id INT,

review\_text TEXT,

FOREIGN KEY (movie\_id) REFERENCES Movies(movie\_id),

FOREIGN KEY (user\_id) REFERENCES Users(user\_id)

);



---------------------------------------------------

Artists Table:

CREATE TABLE Artists (

artist\_id INT AUTO\_INCREMENT PRIMARY KEY,

name VARCHAR(255)

);

---------------------------------------------------

Skills Table:

CREATE TABLE Skills (

skill\_id INT AUTO\_INCREMENT PRIMARY KEY,

skill\_name VARCHAR(100)

);

---------------------------------------------------

Artist\_Skills Table:

CREATE TABLE Artist\_Skills (

artist\_id INT,

skill\_id INT,

PRIMARY KEY (artist\_id, skill\_id),

FOREIGN KEY (artist\_id) REFERENCES Artists(artist\_id),

FOREIGN KEY (skill\_id) REFERENCES Skills(skill\_id)

);

---------------------------------------------------

Roles Table:

CREATE TABLE Roles (

role\_id INT AUTO\_INCREMENT PRIMARY KEY,

role\_name VARCHAR(255)

);

---------------------------------------------------

Movie\_Artist\_Roles Table:

CREATE TABLE Movie\_Artist\_Roles (

movie\_id INT,

artist\_id INT,

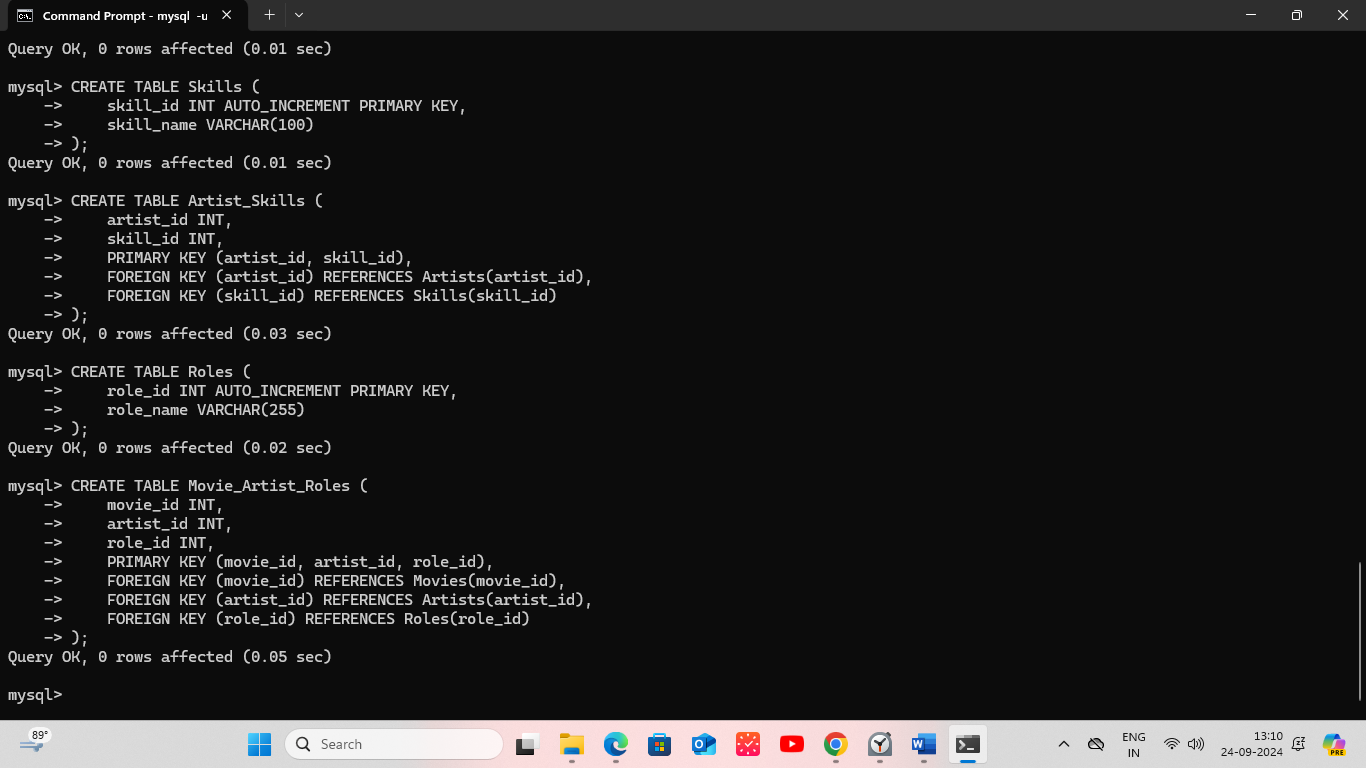
role\_id INT,

PRIMARY KEY (movie\_id, artist\_id, role\_id),

FOREIGN KEY (movie\_id) REFERENCES Movies(movie\_id),

FOREIGN KEY (artist\_id) REFERENCES Artists(artist\_id),

FOREIGN KEY (role\_id) REFERENCES Roles(role\_id))



Step 3: CRUD Operations

-- Insert Movies

INSERT INTO Movies (title, release\_year) VALUES

('Inception', 2010),

('The Matrix', 1999),

('Interstellar', 2014),

('Avatar', 2009),

('The Dark Knight', 2008);

-- Insert Media

INSERT INTO Media (movie\_id, media\_type, media\_url) VALUES

(1, 'Video', 'https://inception\_trailer.com'),

(1, 'Image', 'https://inception\_poster.com'),

(2, 'Video', 'https://matrix\_trailer.com'),

(2, 'Image', 'https://matrix\_poster.com');

-- Insert Genres

INSERT INTO Genres (genre\_name) VALUES

('Sci-Fi'),

('Action'),

('Adventure'),

('Drama'),

('Fantasy');

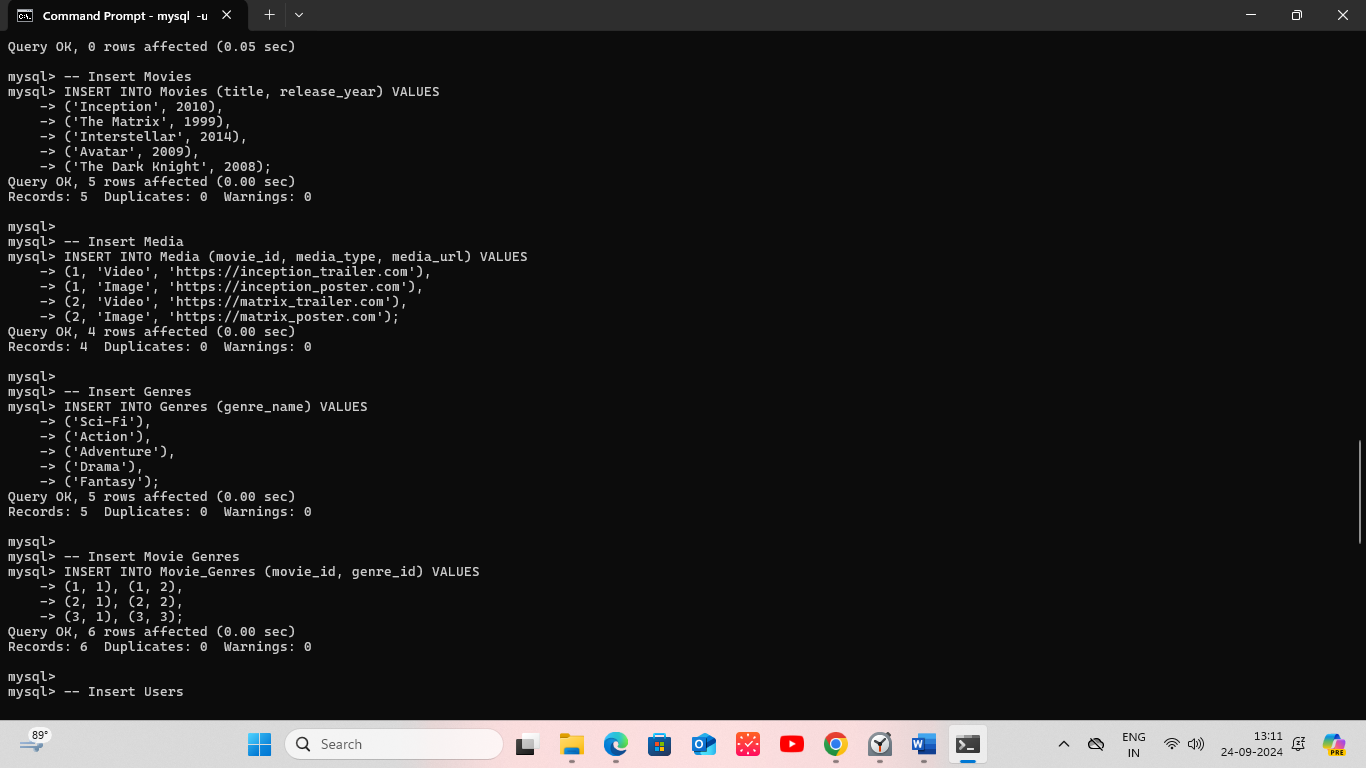
-- Insert Movie Genres

INSERT INTO Movie\_Genres (movie\_id, genre\_id) VALUES

(1, 1), (1, 2),

(2, 1), (2, 2),

(3, 1), (3, 3);



-- Insert Users

INSERT INTO Users (username) VALUES

('john\_doe'),

('jane\_smith');

-- Insert Reviews

INSERT INTO Reviews (movie\_id, user\_id, review\_text) VALUES

(1, 1, 'Great movie!'),

(2, 2, 'A sci-fi masterpiece.');

-- Insert Artists

INSERT INTO Artists (name) VALUES

('Leonardo DiCaprio'),

('Keanu Reeves');

-- Insert Skills

INSERT INTO Skills (skill\_name) VALUES

('Acting'),

('Directing');

-- Insert Artist Skills

INSERT INTO Artist\_Skills (artist\_id, skill\_id) VALUES

(1, 1), (2, 1);

-- Insert Roles

INSERT INTO Roles (role\_name) VALUES

('Lead Actor'),

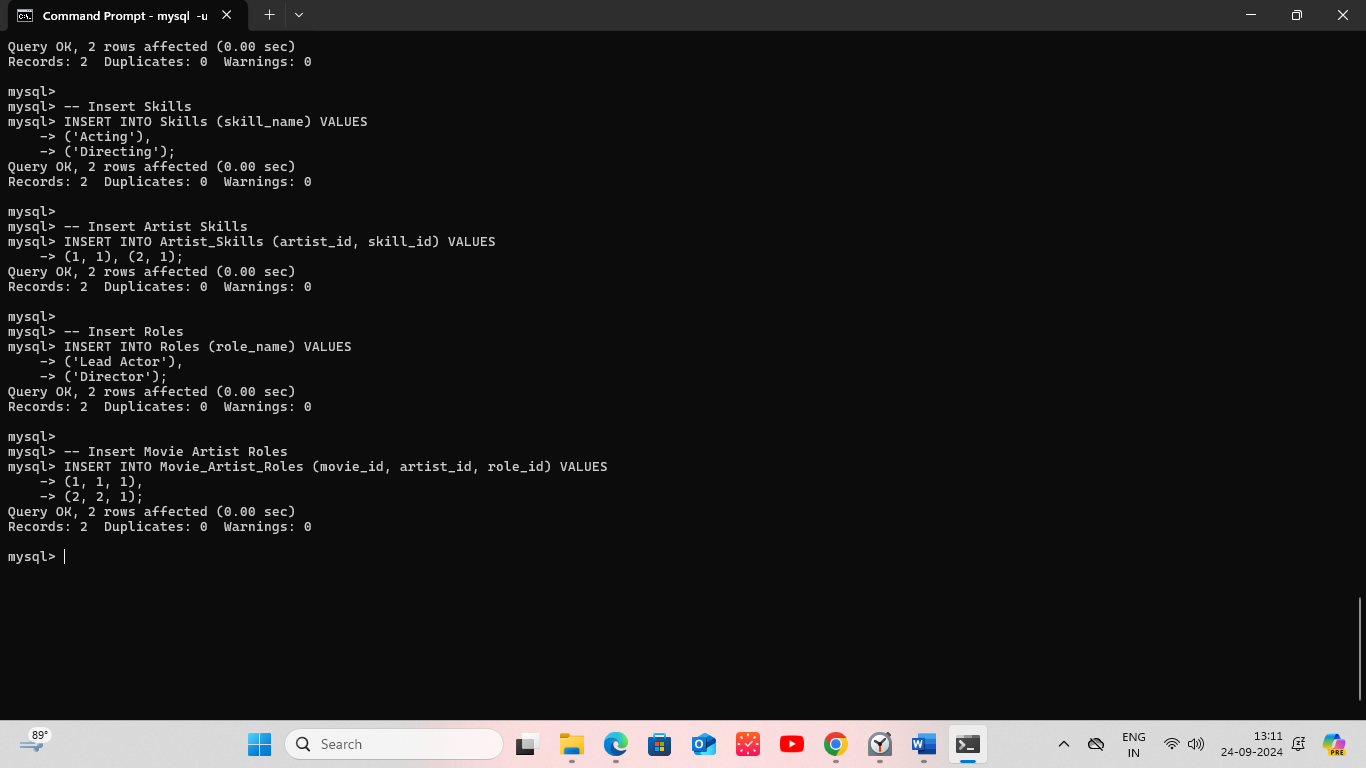
('Director');

-- Insert Movie Artist Roles

INSERT INTO Movie\_Artist\_Roles (movie\_id, artist\_id, role\_id) VALUES

(1, 1, 1),

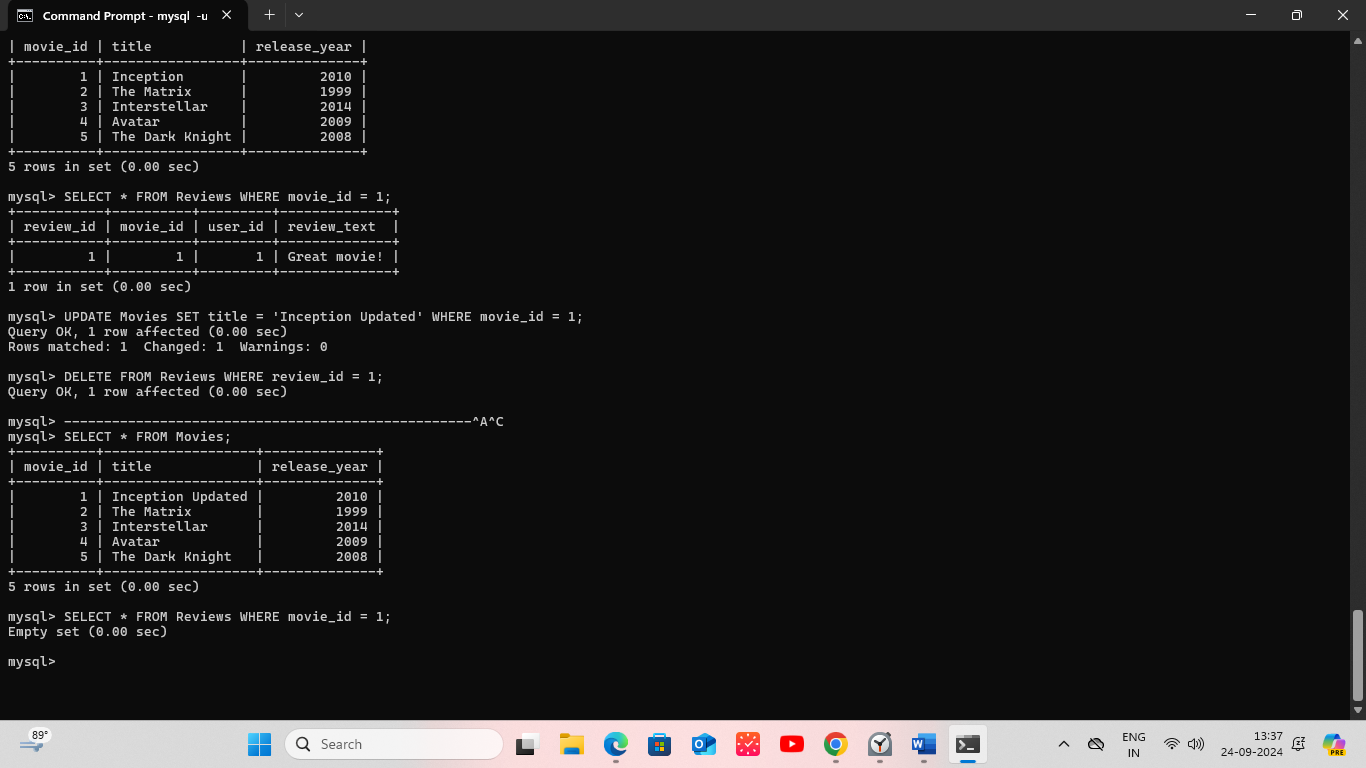
(2, 2, 1);



**Read:**

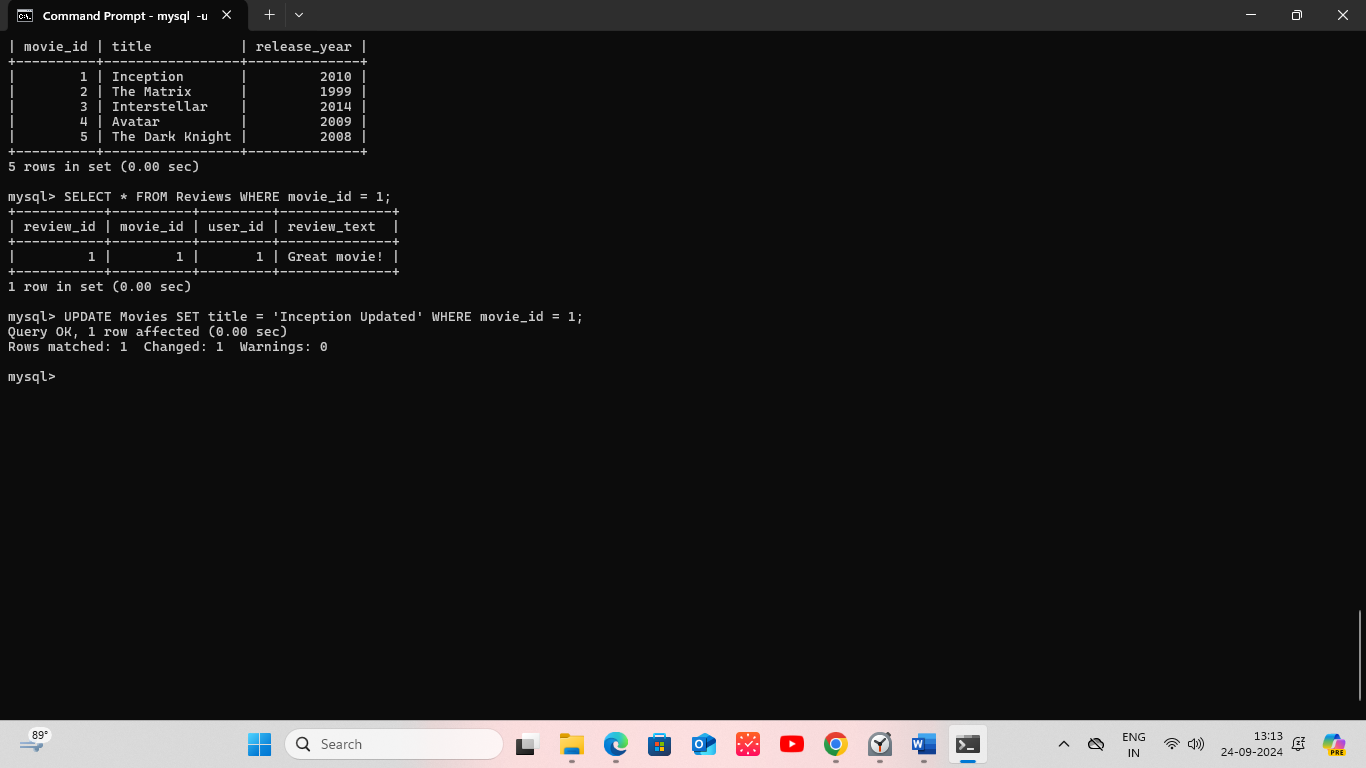
SELECT \* FROM Movies;

SELECT \* FROM Reviews WHERE movie\_id = 1;

****

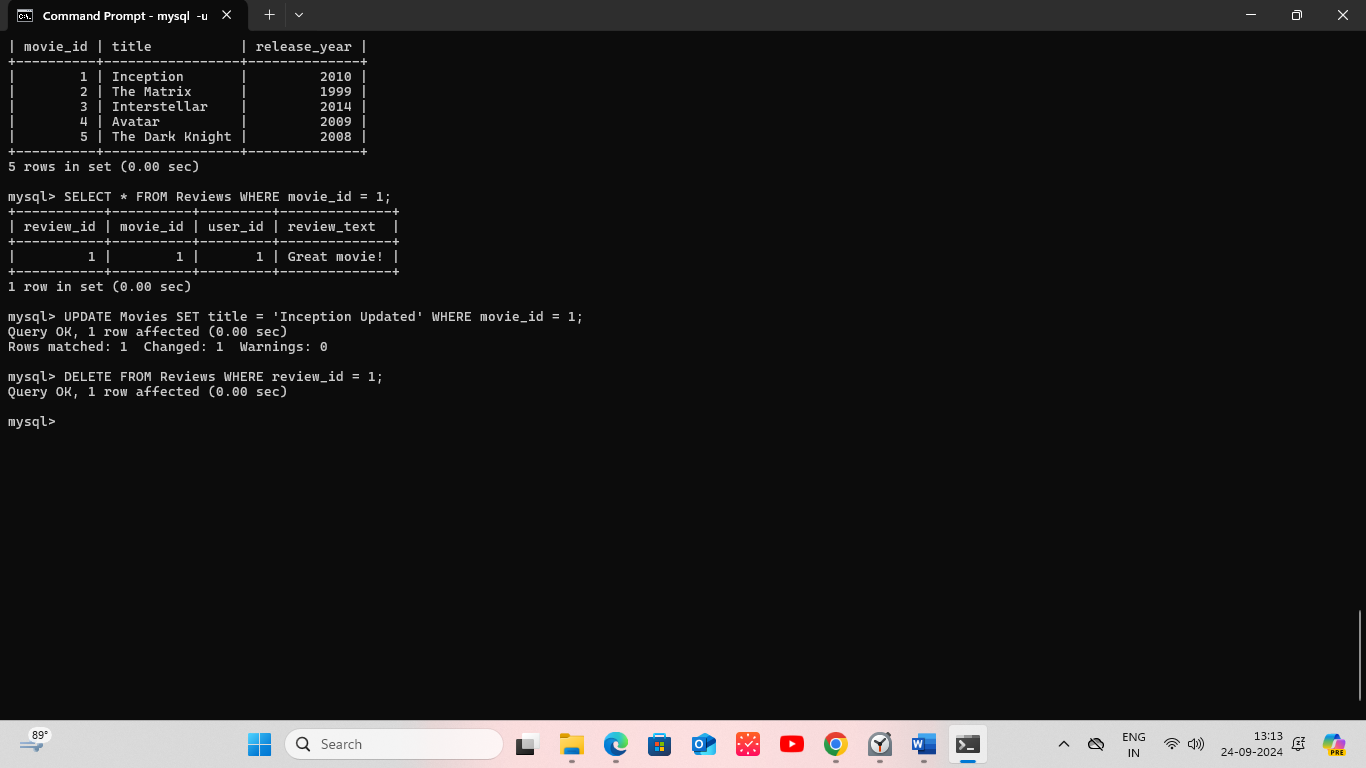
**Update:**

UPDATE Movies SET title = 'Inception Updated' WHERE movie\_id = 1;



**Delete:**

DELETE FROM Reviews WHERE review\_id = 1;

****