

Calma, Michael Vincent, L.

BSCS – C204

## Finals Lab Task 5. CLI using Mysql and Python

Code:

The image shows a terminal window with two panes. The left pane displays the Python script code for a MySQL command-line interface. The right pane shows the MySQL command-line interface (mysql) running, displaying a menu and some database operations.

```
1 import mysql.connector
2
3 # Connect to MySQL database
4 conn = mysql.connector.connect(
5     host="localhost",
6     user="test_user",
7     password="richard123",
8     database="moviesDB"
9 )
10
11 cursor = conn.cursor()
12
13 # 1. Add New Record
14 usage
15 def add_movie():
16     print("\n--- Add Movie ---")
17     movie_id = int(input("Movie ID: "))
18     title = input("Title: ")
19     main_actor = input("Main Actor: ")
20     director = input("Director: ")
21     genre = input("Genre: ")
22     gross_sales = float(input("Gross Sales: "))
23     ratings = input("Rating (5/10/11/12/13): ")
24
25     sql = "INSERT INTO movies VALUES (%s,%s,%s,%s,%s,%s)"
26     values = (movie_id, title, main_actor, director, genre, gross_sales)
27
28     cursor.execute(sql, values)
29     conn.commit()
30     print("Movie added successfully!\n")
31
32 # 2. View All Movies
33 usage
34 def view_movies():
35     print("\n--- All Movies ---")
36     cursor.execute("SELECT * FROM movies")
37     rows = cursor.fetchall()
38
39     if rows:
40         for row in rows:
41             print(row)
42     else:
43         print("No records found.")
44
45 # 3. Update a Record
46 usage
47 def update_movie():
48     print("\n--- Update Movie ---")
49     movie_id = int(input("Enter movie ID to update: "))
50     new_title = input("Enter new movie title: ")
51
52     sql = "UPDATE movies SET title=%s WHERE movie_id=%s"
53     cursor.execute(sql, (new_title, movie_id))
54     conn.commit()
55
56     print("Movie updated successfully!\n")
57
58
59 # 4. Delete a Movie
60 usage
61 def delete_movie():
62     print("\n--- Delete Movie ---")
63     movie_id = int(input("Enter Movie ID to delete: "))
64
65     cursor.execute("DELETE FROM movies WHERE movie_id=%s", (movie_id,))
66     conn.commit()
67
68     print("Movie deleted successfully!\n")
69
70 # 5. Search a Movie (Challenge Task)
71 usage
72 def search_movie():
73     print("\n--- Search Movie ---")
74     keyword = input("Enter Movie Title or ID to search: ")
75
76     sql = "SELECT * FROM movies WHERE title LIKE %s OR movie_id LIKE %s"
77     pattern = "%" + keyword + "%"
78
79     cursor.execute(sql, (pattern, pattern))
80     result = cursor.fetchone()
81
82     if result:
83         print("Record Found!", result)
84     else:
85         print("No matching movie found.")
86
87
88 # 6. Display Total Number of Movies
89 usage
90 def total_movies():
91     cursor.execute("SELECT COUNT(*) FROM movies")
92     count = cursor.fetchone()[0]
93
94     print("\nTotal movies in Database: ", count)
95
96
97 # Start the program
98 menu()
99
100
101 cursor.close()
102 conn.close()
```

The MySQL command-line interface (mysql) window shows the following output:

```
MENU
1. Add Movie
2. View Movie
3. Update Movie
4. Delete Movie
5. Search Movie
6. Display Total Records
7. Exit

Select an option (1-7): 1
1. Add Movie
Movie ID: 1
Title: Star Wars
Main Actor: Harrison Ford
Director: George Lucas
Genre: Sci-Fi
Gross Sales: 1000000000
Rating: 10
Movie added successfully!
```

## Output:

```
C:\Users\COMLAB\PycharmProjects\pythonProject2\venv\Scripts\python.exe C:\Users\COMLAB\PycharmProjects\pythonProject2\main.py

----- MOVIE DATABASE CLI -----
1. Add Movie
2. View Movies
3. Update Movie
4. Delete Movie
5. Search a Movie
6. Display Total Records
7. Exit
Select an option (1-7): 2

--- All Movies ---
(1, 'Fast and Furious', 'Paul Walker', 'Vin Diesel', 'Action', 3800.4, 'PG')
(2, 'Avengers: End Game', 'Robert Downey Jr.', 'Anthony Russo', 'Superhero / Action', 5490.7, 'PG13')
(3, 'Boyz n tha Hood', 'Ice Cube', 'Ice Cube', 'Crime/Thriller', 6500.1, 'PG13')
(4, 'Menace II Society', 'Tyrine Turner', 'Albert Hughes', 'Crime/Thriller', 1074.2, 'R')
(5, 'Baby Boy', 'Snoop Dof', 'Kim Hardin', 'Crime/Romance', 463.5, 'R16')

----- MOVIE DATABASE CLI -----
1. Add Movie
2. View Movies
3. Update Movie
4. Delete Movie
5. Search a Movie
6. Display Total Records
7. Exit
Select an option (1-7): 6

Total Movies in Database: 5

----- MOVIE DATABASE CLI -----
1. Add Movie
2. View Movies
3. Update Movie
4. Delete Movie
5. Search a Movie
6. Display Total Records
7. Exit
Select an option (1-7): |
```

on Control Run TODO Problems Terminal Python Packages Python Console Services

Kubernetes available... // Configure plugins... // Don't suggest again (49 minutes ago)

Reading in