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BSCS – C204

Finals Lab Task 5. CLI using Mysql and Python

Code:

```
1 import mysql.connector
2
3 # Connect to MySQL database
4 conn = mysql.connector.connect(
5     host="localhost",
6     user="test_user",
7     password="michael1234",
8     database="moviesDB"
9 )
10
11 cursor = conn.cursor()
12
13 # 1. Add New Record
14
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 (G/PG/R13/R16/R): ")
24
25     sql = "INSERT INTO movies VALUES (%s,%s,%s,%s,%s,%s,%s)"
26     values = (movie_id, title, main_actor, director, genre, gross_sales, ratings)
27
28     cursor.execute(sql, values)
29     conn.commit()
30     print("Movie added successfully!\n")
31
32
33 # 2. View All Movies
34
35 def view_movies():
36     print("\n--- All Movies ---")
37     cursor.execute("SELECT * FROM movies")
38     rows = cursor.fetchall()
39
40     if rows:
41         for row in rows:
42             print(row)
43     else:
44         print("No records found.")
45
46
47 # 3. Update a Record
48
49 def update_movie():
50     print("\n--- Update Movie ---")
51     movie_id = int(input("Enter movie ID to update: "))
52     new_title = input("Enter new movie title: ")
53
54     sql = "UPDATE movies SET title=%s WHERE movie_id=%s"
55     cursor.execute(sql, (new_title, movie_id))
56     conn.commit()
57     print("Movie updated successfully!\n")
58
59
60 # 4. Delete a Movie
61
62 def delete_movie():
63     print("\n--- Delete Movie ---")
64     movie_id = int(input("Enter Movie ID to delete: "))
65     cursor.execute("DELETE FROM movies WHERE movie_id=%s", (movie_id,))
66     conn.commit()
67     print("Movie deleted successfully!\n")
68
69
70 # 5. Search a Movie (Challenge Task)
71
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.fetchall()
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
90 def total_movies():
91     cursor.execute("SELECT COUNT(*) FROM movies")
92     count = cursor.fetchone()[0]
93     print(f"Total Movies in Database: {count}")
94
95
96 # MENU
97
98 def menu():
99     while True:
100         print("\n----- MOVIE DATABASE CLI -----")
101         print("1. Add Movie")
102         print("2. View Movies")
103         print("3. Update Movie")
104         print("4. Delete Movie")
105         print("5. Search a Movie")
106         print("6. Display Total Records")
107         print("7. Exit")
108
109         choice = input("Select an option (1-7): ")
110
111         if choice == "1":
112             add_movie()
113         elif choice == "2":
114             view_movies()
115         elif choice == "3":
116             update_movie()
117         elif choice == "4":
118             delete_movie()
119         elif choice == "5":
120             search_movie()
121         elif choice == "6":
122             total_movies()
123         elif choice == "7":
124             print("Program exiting...")
125             break
126         else:
127             print("Invalid option. Try again.")
128
129
130 # Start the program
131 menu()
132
133 cursor.close()
134 conn.close()
```

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', 'Tyrene 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): |
```

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