Torres, Justine Kurt Q.
7OOP
BSCS – C204
5

CRUD CLI using Python & MYSQL

1. Make sure you have installed the following pre-requisites before proceeding:
      a. Mysql-connector
      b. Mysql-connector-python
      c. Xampp is running along with Apache and Mysql in the background
2. Create the following database in Mysql;
      a. Database name: moviesDB with the ff: fields:
            movie_id int(10) Primary Key
            title varchar(50) NOT NULL
            main_actor varchar(50) NOT NULL
            director varchar(50) NOT NULL
            genre varchar(25) NOT NULL
            gross_sales float
            ratings (G, PG, R13, R16,X) varchar(5)
      b. Insert at_least 5 records
      c. Create a user named test_user and assign a password and give it an
      admin access by checking necessary SQL functions
3. Guided by the Demo code attached in this task. test_DemoDB.py
4. Kindly continue working on the code that will allow the user to navigate through the Database and perform simple CRUD operations. Follow the following CLI Menu

Options:

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

5. The user should be able perform the ff: in your program.

MOVIE DATABASE CRUD APP
       1- Add New Record
       2- View all records,
       3- Update a Record and show the updates,
       4- Delete a record
       5- Search A Record
       6- Display Total Numbers of Movies stored in the database
       7- Exit

6. For additional challenge, Task – You are to add a SEARCH option in the MENU that will allow the user to search by Name or emp_id, then display the information about the record being search. You may use Like statement and fetchOne method in my SQL to do this,

7. You are also going to add a method that will display the the total number of records in your database – You may use SQL count statement for this.

8. What to submit:
    a. UI Menu
    b. Sample Output
    c. Source Code
    d. Exported sql file

===

SOURCE CODE:

```python
import mysql.connector

conn = mysql.connector.connect(
 host="localhost",
 user="test_user",
 password="asdf",
 database="moviesdb")

cursor = conn.cursor()

def add_movie():
 print("Fill the following...")
 movie_id = input("Movie ID: ")
 title = input("Title: ")
 main_actor = input("Main Actor: ")
 director = input("Director: ")
 genre = input("Genre: ")
 gross_sales = float(input("Gross Sales: "))
 rating = input("Ratings [ G, PG, R13, R16,X ]: ")
```

```python
    cursor.execute("INSERT INTO movies (movie_id, title, main_actor, director, genre,
gross_sales, rating) "
    "VALUES(%s, %s, %s, %s, %s, %s, %s)",
    (movie_id, title, main_actor, director, genre, gross_sales, rating))
conn.commit()
    print("Movie Added Successfully\n")
    view_movie()


def view_movie():
    cursor.execute("SELECT * FROM movies")
    rows = cursor.fetchall()
    if rows:
    print("\nMovie List:")
    for row in rows:
    print(row)
    else:
    print("\nNo movie found.")


def update_movie():
    movie_id = input("Enter Movie ID to update: ")
    print("Fill the following...")
    title = input("Title: ")
    main_actor = input("Main Actor: ")
    director = input("Director: ")
    genre = input("Genre: ")
    gross_sales = float(input("Gross Sales: "))
    rating = input("Ratings [ G, PG, R13, R16,X ]: ")
    cursor.execute("UPDATE movies SET title=%s, main_actor=%s, director=%s, genre=%s,
gross_sales=%s, rating=%s "
    "WHERE movie_id=%s", (title, main_actor, director, genre, gross_sales, rating,
movie_id))
    conn.commit()
    print("Movie updated successfully!\n")


def delete_movie():
    movie_id = input("Enter movie ID to delete: ")
    cursor.execute("DELETE FROM movies WHERE movie_id=%s", (movie_id,))
conn.commit()
    print("Movie deleted successfully!\n")
```

```python
    view_movie()


def search_movie():
 search_term = input("Enter movie title to search: ")
 cursor.execute("SELECT * FROM movies WHERE title LIKE %s", ('%' + search_term +
'%',))
 rows = cursor.fetchall()

 if rows:
 print("\nSearch Results:")
 for row in rows:
 print(row)
 else:
 print("\nNo matching movies found.")


def total_movies():
 cursor.execute("SELECT COUNT(*) FROM movies")
 result = cursor.fetchone()
 print(f"\nTotal number of movies: {result[0]}")


def menu():
 while True:
 print("\n--- MOVIE DATABASE CLI ---")
 print("1- Add Movie")
 print("2- View Movies")
 print("3- Update Movie")
 print("4- Delete a Movie")
 print("5- Search a Movie")
 print("6- Display Total Records")
 print("7- Exit")

 choice = input("Enter choice: ")

 if choice == '1':
 add_movie()
 elif choice == '2':
 view_movie()
 elif choice == '3':
 update_movie()
```

```python
        elif choice == '4':
            delete_movie()
        elif choice == '5':
            search_movie()
        elif choice == '6':
            total_movies()
        elif choice == '7':
            print("Thank You... Goodbye!")
            cursor.close()
            conn.close()
            break
        else:
            print("Invalid choice, please try again.")


if __name__ == "__main__":
    menu()
```

==

SAMPLE OUTPUTS:
    1. Add Movie

```
--- MOVIE DATABASE CLI ---
1- Add Movie
2- View Movies
3- Update Movie
4- Delete a Movie
5- Search a Movie
6- Display Total Records
7- Exit
Enter choice: 1
Fill the following...
Movie ID: 3
Title: Paldo
Main Actor: Charlse Ngo
Director: Kurt Torres
Genre: Action-Comedy
Gross Sales: 120
Ratings [ G, PG, R13, R16,X ]: R16
Movie Added Successfully


Movie List:
(1, 'Bangbang', 'Charles Edrick', 'Dexter', 'Action', 500.0, 'R13')
(2, 'The Matrix', 'Keanu Reeves', 'Wachowski Sisters', 'Sci-Fi', 460.0, 'R16')
(3, 'Paldo', 'Charlse Ngo', 'Kurt Torres', 'Action-Comedy', 120.0, 'R16')
(4, 'The Dark Knight', 'Christian Bale', 'Christopher Nolan', 'Action', 1004.0, 'G')
(5, 'Avengers: Endgame', 'Robert Downey Jr.', 'Anthony Russo', 'Action', 2798.0, 'R16')
```

2. View Movies

```
--- MOVIE DATABASE CLI ---
1- Add Movie
2- View Movies
3- Update Movie
4- Delete a Movie
5- Search a Movie
6- Display Total Records
7- Exit
Enter choice: 2

Movie List:
(1, 'Bangbang', 'Charles Edrick', 'Dexter', 'Action', 500.0, 'R13')
(2, 'The Matrix', 'Keanu Reeves', 'Wachowski Sisters', 'Sci-Fi', 460.0, 'R16')
(3, 'Paldo', 'Charlse Ngo', 'Kurt Torres', 'Action-Comedy', 120.0, 'R16')
(4, 'The Dark Knight', 'Christian Bale', 'Christopher Nolan', 'Action', 1004.0, 'G')
(5, 'Avengers: Endgame', 'Robert Downey Jr.', 'Anthony Russo', 'Action', 2798.0, 'R16')
```

3. Update Movie

```
--- MOVIE DATABASE CLI ---
1- Add Movie
2- View Movies
3- Update Movie
4- Delete a Movie
5- Search a Movie
6- Display Total Records
7- Exit
Enter choice: 3
Enter Movie ID to update: 1
Fill the following...
Title: Golden Boy
Main Actor: James Villar
Director: Dexter Soriano
Genre: Sxi-Fi
Gross Sales: 800
Ratings [ G, PG, R13, R16,X ]: R16
Movie updated successfully!
```

```
Movie List:
(1, 'Golden Boy', 'James Villar', 'Dexter Soriano', 'Sxi-Fi', 800.0, 'R16')
(2, 'The Matrix', 'Keanu Reeves', 'Wachowski Sisters', 'Sci-Fi', 460.0, 'R16')
(3, 'Paldo', 'Charlse Ngo', 'Kurt Torres', 'Action-Comedy', 120.0, 'R16')
(4, 'The Dark Knight', 'Christian Bale', 'Christopher Nolan', 'Action', 1004.0, 'G')
(5, 'Avengers: Endgame', 'Robert Downey Jr.', 'Anthony Russo', 'Action', 2798.0, 'R16')
```

4. Delete a Movie

```
--- MOVIE DATABASE CLI ---
1- Add Movie
2- View Movies
3- Update Movie
4- Delete a Movie
5- Search a Movie
6- Display Total Records
7- Exit
Enter choice: 4
Enter movie ID to delete: 2
Movie deleted successfully!


Movie List:
(1, 'Golden Boy', 'James Villar', 'Dexter Soriano', 'Sxi-Fi', 800.0, 'R16')
(3, 'Paldo', 'Charlse Ngo', 'Kurt Torres', 'Action-Comedy', 120.0, 'R16')
(4, 'The Dark Knight', 'Christian Bale', 'Christopher Nolan', 'Action', 1004.0, 'G')
(5, 'Avengers: Endgame', 'Robert Downey Jr.', 'Anthony Russo', 'Action', 2798.0, 'R16')
```

5. Search a Movie

```
--- MOVIE DATABASE CLI ---
1- Add Movie
2- View Movies
3- Update Movie
4- Delete a Movie
5- Search a Movie
6- Display Total Records
7- Exit
Enter choice: 5
Enter movie title to search: Paldo

Search Results:
(3, 'Paldo', 'Charlse Ngo', 'Kurt Torres', 'Action-Comedy', 120.0, 'R16')
```

6. Display Total Records

```
--- MOVIE DATABASE CLI ---
1- Add Movie
2- View Movies
3- Update Movie
4- Delete a Movie
5- Search a Movie
6- Display Total Records
7- Exit
Enter choice: 6

Total number of movies: 4
```