```
import java.sql.*;
import java.util.Scanner;

public class JdbcLibraryCrudDemo {

    public static void main(String[] args) {

        String url = "jdbc:mysql://localhost:3306/library";
        String user = "root";  // your MySQL username
        String pass = "your_password";  // your MySQL password

        Scanner sc = new Scanner(System.in);

        try {
            // Load and register driver
            Class.forName("com.mysql.cj.jdbc.Driver");

            // Establish connection
            Connection con = DriverManager.getConnection(url, user, pass);
            System.out.println("Database connected successfully!");

            while (true) {
                System.out.println("\n=== Library Menu ===");
                System.out.println("1. Add Book");
                System.out.println("2. Display Books");
                System.out.println("3. Update Book");
                System.out.println("4. Delete Book");
                System.out.println("5. Exit");
                System.out.print("Enter your choice: ");
```

```
int choice = sc.nextInt();

switch (choice) {

    case 1:
        // INSERT Operation
        System.out.print("Enter Book ID: ");
        int id = sc.nextInt();
        sc.nextLine(); // consume newline
        System.out.print("Enter Book Title: ");
        String title = sc.nextLine();
        System.out.print("Enter Author: ");
        String author = sc.nextLine();

        String insertQuery = "INSERT INTO books VALUES (?, ?, ?)";
        PreparedStatement psInsert = con.prepareStatement(insertQuery);
        psInsert.setInt(1, id);
        psInsert.setString(2, title);
        psInsert.setString(3, author);

        int rowsInserted = psInsert.executeUpdate();
        System.out.println(rowsInserted + " book(s) added successfully.");
        psInsert.close();
        break;

    case 2:
        // DISPLAY Operation
        String selectQuery = "SELECT * FROM books";
        Statement stmt = con.createStatement();
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                ResultSet rs = stmt.executeQuery(selectQuery);

                System.out.println("\nID\tTitle\tAuthor");
                System.out.println("----------------------------");
                while (rs.next()) {
                    System.out.println(rs.getInt("id") + "\t" + rs.getString("title") + "\t" +
rs.getString("author"));
                }
                rs.close();
                stmt.close();
                break;

            case 3:
                // UPDATE Operation
                System.out.print("Enter Book ID to update: ");
                int uid = sc.nextInt();
                sc.nextLine();
                System.out.print("Enter new title: ");
                String newTitle = sc.nextLine();
                System.out.print("Enter new author: ");
                String newAuthor = sc.nextLine();

                String updateQuery = "UPDATE books SET title=?, author=? WHERE
id=?";
                PreparedStatement psUpdate =
con.prepareStatement(updateQuery);
                psUpdate.setString(1, newTitle);
                psUpdate.setString(2, newAuthor);
                psUpdate.setInt(3, uid);
```

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            int rowsUpdated = psUpdate.executeUpdate();
            System.out.println(rowsUpdated + " book(s) updated successfully.");
            psUpdate.close();
            break;

        case 4:
            // DELETE Operation
            System.out.print("Enter Book ID to delete: ");
            int did = sc.nextInt();

            String deleteQuery = "DELETE FROM books WHERE id=?";
            PreparedStatement psDelete = con.prepareStatement(deleteQuery);
            psDelete.setInt(1, did);

            int rowsDeleted = psDelete.executeUpdate();
            System.out.println(rowsDeleted + " book(s) deleted successfully.");
            psDelete.close();
            break;

        case 5:
            // EXIT
            System.out.println("Exiting program... Goodbye!");
            con.close();
            sc.close();
            System.exit(0);

        default:
            System.out.println("Invalid choice! Try again.");
    }
```

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            }

        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```