1. Write a program to illustrates connecting to theAuthorsdatabase, querying the database and processing the result.

Output:



**app.JAVA:**

import java.sql.Connection;  
import java.util.Scanner;  
  
public class app {  
 public static void main(String[] args) {  
 System.*out*.println("hello");  
 Connection con = DBHelper.*getConnection*();  
 int choice;  
 Scanner sc = new Scanner(System.*in*);  
 do {  
 System.*out*.println(  
 "\nChoose from the following :\n" +  
 "1. Display records\n" +  
 "2. Insert records\n" +  
 "3. Delete a records\n" +  
 "4. Exit\n"  
  
 );  
 choice = sc.nextInt();  
 switch (choice) {  
 case 1:  
 Author.*display*(con);  
 break;  
 case 2:  
 Author.*insert*(con);  
 break;  
 case 3:  
 Author.*delete*(con);  
 break;  
 case 4:  
 break;  
 default:  
 System.*out*.println("Invalid Input");  
 }  
 } while (choice != 4);  
 }  
}

**Author.JAVA:**

import java.sql.Connection;  
import java.sql.PreparedStatement;  
import java.sql.ResultSet;  
import java.sql.SQLException;  
import java.util.Scanner;  
  
public class Author {  
 public static void insert(Connection con) {  
 System.*out*.println();  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.println("Enter First Name :");  
 String firstname = sc.nextLine();  
 System.*out*.println("Enter Last Name :");  
 String lastname = sc.nextLine();  
 try {  
 PreparedStatement ps = con.prepareStatement("insert into authors(first\_name, last\_name) values(?,?)");  
 ps.setString(1, firstname);  
 ps.setString(2, lastname);  
 ps.executeUpdate();  
 System.*out*.println("Record Inserted Successfully");  
 } catch (Exception e) {  
 System.*out*.println("An Error Occurred while inserting record");  
 e.printStackTrace();  
 }  
 }  
  
 public static void display(Connection con) {  
 try {  
 PreparedStatement ps = con.prepareStatement("select \* from authors");  
 ResultSet rs = ps.executeQuery();  
 while (rs.next()) {  
 System.*out*.println(  
 rs.getString(1) + "," +  
 rs.getString(2) + "," +  
 rs.getString(3) + ","  
 );  
 }  
 } catch (SQLException e) {  
 e.printStackTrace();  
 }  
 }  
  
 public static void delete(Connection con) {  
 try {  
 System.*out*.println();  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.println("Enter ID of author to delete : ");  
 int id = sc.nextInt();  
 PreparedStatement ps = con.prepareStatement("delete from authors where author\_id = ?");  
 ps.setInt(1, id);  
 ps.executeUpdate();  
 System.*out*.println("Author Deleted Successfully");  
 } catch (Exception e) {  
 System.*out*.println("An Error Occurred while deleting the record");  
 e.printStackTrace();  
 }  
 }  
}

**DBHelper.HTML:**

import java.sql.Connection;  
import java.sql.DriverManager;  
  
public class DBHelper {  
 public static Connection getConnection(){  
  
 final String url = "jdbc:mysql://localhost:3306/library";  
 final String username = "root";  
 final String password = "";  
 Connection con = null;  
 try {  
 Class.*forName*("com.mysql.cj.jdbc.Driver");  
 con = DriverManager.*getConnection*(url, username, password);  
 }catch (Exception e){  
 e.printStackTrace();  
 }  
 return con;  
 }  
  
}