Task :7

Java-JDBC

Date: 24-10-2025 &

25-10-2025

1. Write a JDBC Connectivity program accessing record Oracle/MySQL from Database for the following scenario:

"A program which connects to an online book database table and select the tuple and display it.

Aim:

To write a Java program using JDBC that connects to a MySQL (or Oracle) database named *online_bookstore* and retrieves records from the *books* table to display them.

Algorithm:

1. Class Name: BookJDBC – to connect and fetch data from the database.
2. Method Name: main() – to establish connection, execute query, and display records.
3. Package Used: java.sql – for database connectivity.
4. Function:
    - Load JDBC driver.
    - Connect to MySQL/Oracle database.
    - Execute SELECT query on the *books* table.
    - Display the retrieved records.
    - Close the connection.

Program:

```
import java.sql.*;

public class BookJDBC {
   public static void main(String[] args) {
      Connection con = null;
      Statement stmt = null;
      ResultSet rs = null;

      try {
         // Step 1: Load JDBC Driver
         Class.forName("com.mysql.cj.jdbc.Driver");
```

```
        // Step 2: Establish Connection
        con = DriverManager.getConnection(
            "jdbc:mysql://localhost:3306/online_bookstore", "root", "your_password");

        // Step 3: Create Statement
        stmt = con.createStatement();

        // Step 4: Execute Query
        String query = "SELECT * FROM books";
        rs = stmt.executeQuery(query);

        // Step 5: Display Records
        System.out.println("------ Book Details ------");
        while (rs.next()) {
            int id = rs.getInt("book_id");
            String title = rs.getString("title");
            String author = rs.getString("author");
            double price = rs.getDouble("price");

            System.out.println("Book ID: " + id);
            System.out.println("Title: " + title);
            System.out.println("Author: " + author);
            System.out.println("Price: " + price);
            System.out.println("--------------------------");
        }
    } catch (ClassNotFoundException e) {
        System.out.println("JDBC Driver not found!");
    } catch (SQLException e) {
        System.out.println("Database error: " + e.getMessage());
    } finally {
        // Step 6: Close connections
        try {
            if (rs != null) rs.close();
            if (stmt != null) stmt.close();
            if (con != null) con.close();
        } catch (SQLException e) {
            System.out.println("Error closing resources: " + e.getMessage());
        }
    }
}
```

}

Database Table (books):

book_id	title	author	price
1	Java Programming	James Gosling	499.00
2	Database Systems	Henry Korth	650.00
3	Web Technologies	Ivan Bayross	550.00

Sample Output:

------ Book Details ------
Book ID: 1
Title: Java Programming
Author: James Gosling
Price: 499.0

Book ID: 2
Title: Database Systems
Author: Henry Korth
Price: 650.0

Book ID: 3
Title: Web Technologies
Author: Ivan Bayross
Price: 550.0

Result:

Thus, the Java JDBC program successfully connected to the online_bookstore database, retrieved all tuples from the *books* table, and displayed the book details using JDBC connectivity.