

## Assignment No :- 5

### **#AddBookServlet.java**

```
package com.ebookshop;

import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;

public class AddBookServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
    IOException {
        String title = request.getParameter("title");
        String author = request.getParameter("author");
        double price = Double.parseDouble(request.getParameter("price"));
        int qty = Integer.parseInt(request.getParameter("qty"));

        response.setContentType("text/html");
        PrintWriter out = response.getWriter();

        try (Connection con = DBConnection.initializeDatabase()) {
            PreparedStatement ps = con.prepareStatement("INSERT INTO books (title, author, price,
qty) VALUES (?, ?, ?, ?)");
            ps.setString(1, title);
            ps.setString(2, author);
            ps.setDouble(3, price);
            ps.setInt(4, qty);
            ps.executeUpdate();

            out.println("<h3>Book added successfully!</h3>");
            out.println("<br><a href='books'>View Book List</a>");
        } catch (Exception e) {
            out.println("Error: " + e.getMessage());
        }
    }
}
```

### **#BookListServlet.java**

```
package com.ebookshop;

import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;

public class BookListServlet extends HttpServlet {
```

```

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
IOException {
    response.setContentType("text/html");
    PrintWriter out = response.getWriter();

    try (Connection con = DBConnection.initializeDatabase()) {
        Statement stmt = con.createStatement();
        ResultSet rs = stmt.executeQuery("SELECT * FROM books");

        out.println("<h2>Book List</h2><table border='1'>");
        out.println("<tr><th>ID</th><th>Title</th><th>Author</th><th>Price</th><th>Qty</th><th>Action</th></tr>");
        while (rs.next()) {
            out.println("<tr><td>" + rs.getInt("id") + "</td>" +
                "<td>" + rs.getString("title") + "</td>" +
                "<td>" + rs.getString("author") + "</td>" +
                "<td>" + rs.getDouble("price") + "</td>" +
                "<td>" + rs.getInt("qty") + "</td>" +
                "<td><a href='buy?id=" + rs.getInt("id") + "'>Buy</a></td></tr>");
        }
        out.println("</table><br><a href='addbook.html'>Add New Book</a>");
    } catch (Exception e) {
        out.println("Error: " + e.getMessage());
    }
}

```

### **#BuyBookServlet.java**

```
package com.ebookshop;
```

```

import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;

```

```

public class BuyBookServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
IOException {
        int id = Integer.parseInt(request.getParameter("id"));
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();

        try (Connection con = DBConnection.initializeDatabase()) {
            PreparedStatement ps = con.prepareStatement("UPDATE books SET qty = qty - 1 WHERE
id = ? AND qty > 0");
            ps.setInt(1, id);
            int rows = ps.executeUpdate();

```

```

        if (rows > 0) {
            out.println("<h3>Book purchased successfully!</h3>");
        } else {
            out.println("<h3>Out of stock or invalid ID!</h3>");
        }
        out.println("<br><a href='books'>Back to List</a>");
    } catch (Exception e) {
        out.println("Error: " + e.getMessage());
    }
}
}

```

### ***#DBConnection.java***

```
package com.ebookshop;
```

```
import java.sql.Connection;
import java.sql.DriverManager;
```

```

public class DBConnection {
    public static Connection initializeDatabase() throws Exception {
        String dbURL = "jdbc:mysql://localhost:3306/ebookshop";
        String dbUser = "root";
        String dbPass = "raj@1415";

        Class.forName("com.mysql.cj.jdbc.Driver");
        return DriverManager.getConnection(dbURL, dbUser, dbPass);
    }
}

```

### ***#web.xml***

```

<web-app>
  <servlet>
    <servlet-name>BookList</servlet-name>
    <servlet-class>com.ebookshop.BookListServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>BookList</servlet-name>
    <url-pattern>/books</url-pattern>
  </servlet-mapping>

  <servlet>
    <servlet-name>BuyBook</servlet-name>
    <servlet-class>com.ebookshop.BuyBookServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>BuyBook</servlet-name>
    <url-pattern>/buy</url-pattern>
  </servlet-mapping>

```

```
<servlet>
  <servlet-name>AddBook</servlet-name>
  <servlet-class>com.ebookshop.AddBookServlet</servlet-class>
</servlet>
<servlet-mapping>
  <servlet-name>AddBook</servlet-name>
  <url-pattern>/addbook</url-pattern>
</servlet-mapping>

<welcome-file-list>
  <welcome-file>index.html</welcome-file>
</welcome-file-list>
</web-app>
```

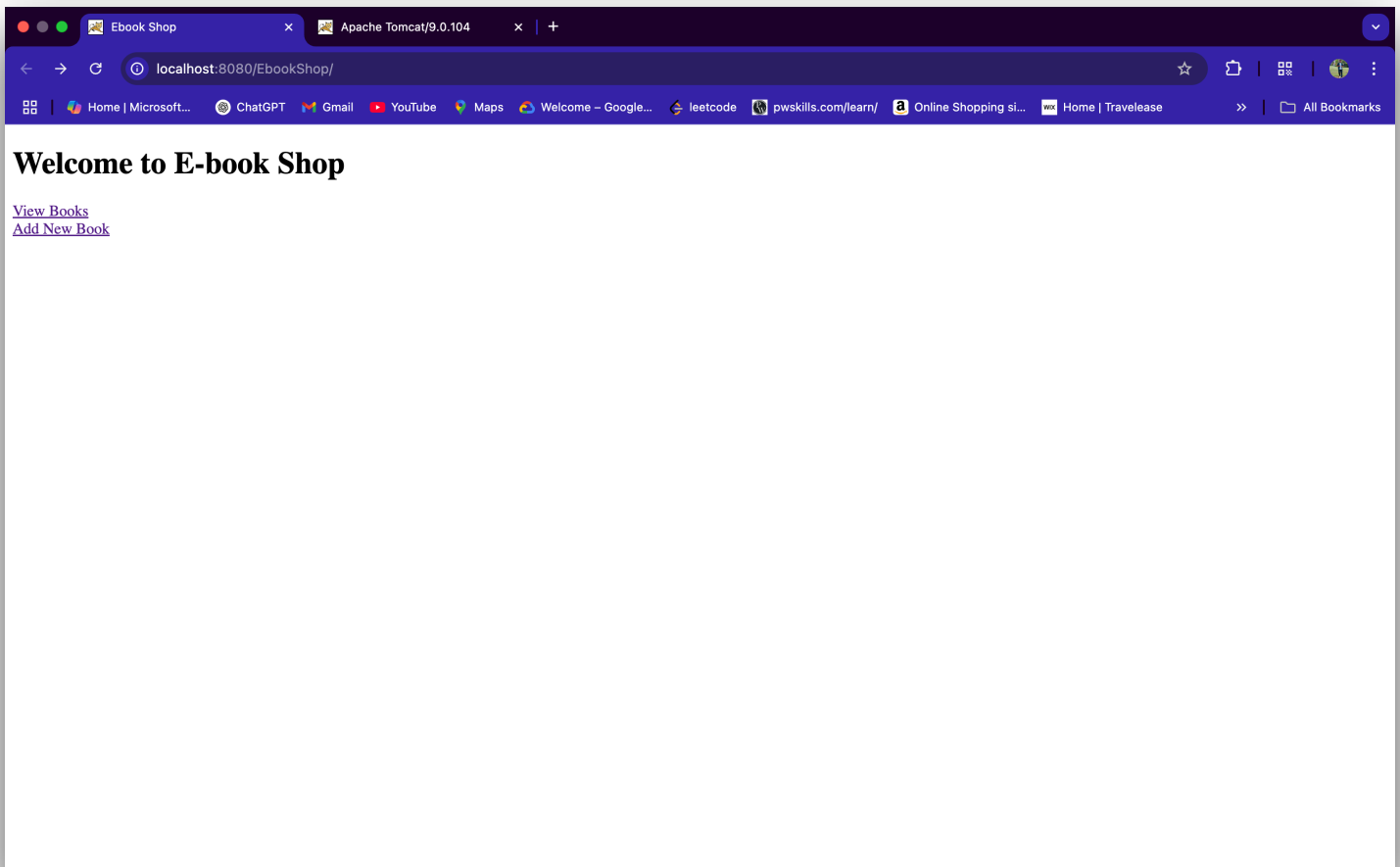
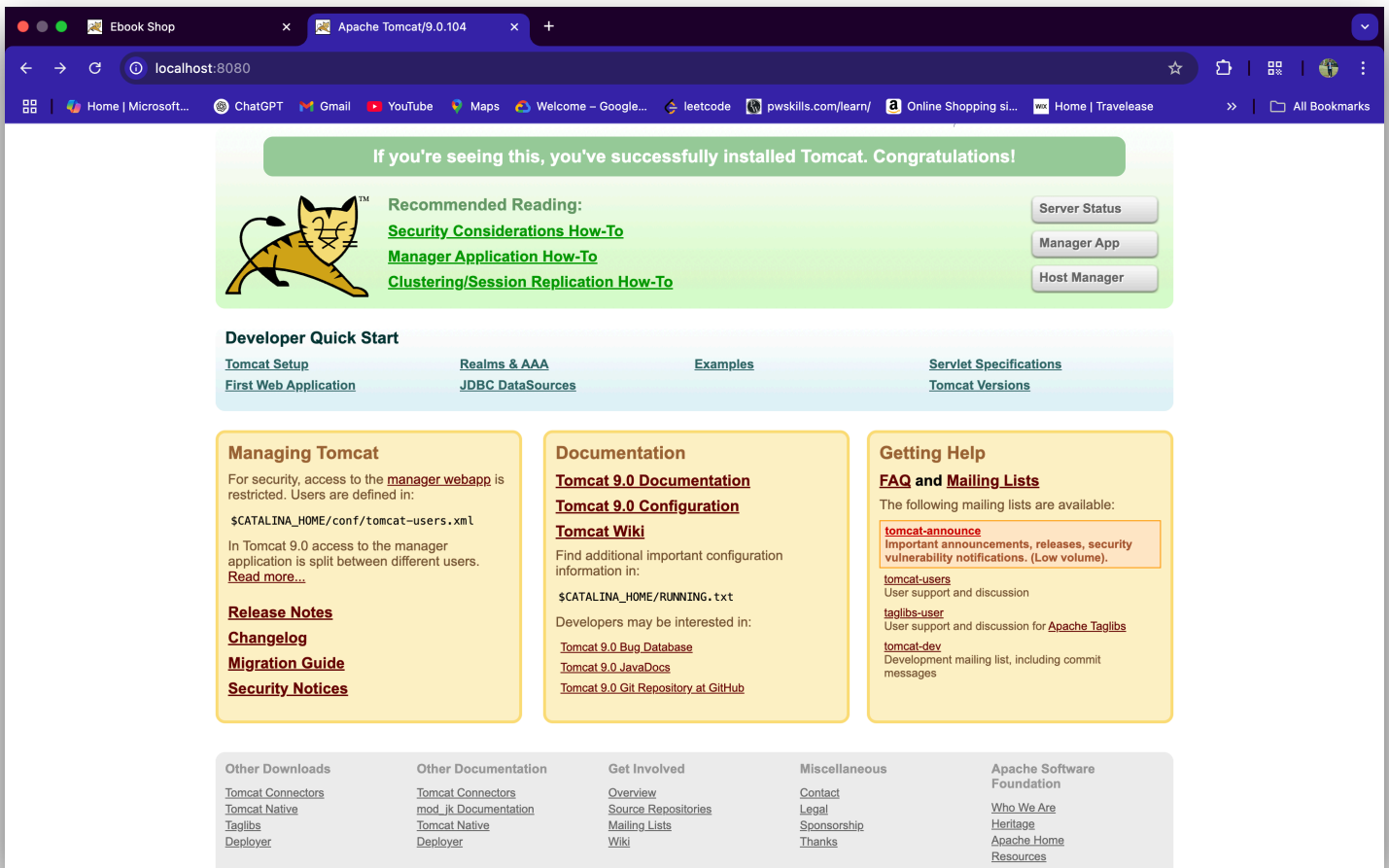
### ***#index.html***

```
<!DOCTYPE html>
<html>
<head>
  <title>Ebook Shop</title>
</head>
<body>
  <h1>Welcome to E-book Shop</h1>
  <a href="books">View Books</a><br>
  <a href="addbook.html">Add New Book</a>
</body>
</html>
```

### ***#addbook.html***

```
<!DOCTYPE html>
<html>
<head>
  <title>Add Book</title>
</head>
<body>
  <h2>Add Book Form</h2>
  <form action="addbook" method="post">
    Title: <input type="text" name="title"><br>
    Author: <input type="text" name="author"><br>
    Price: <input type="number" name="price" step="0.01"><br>
    Quantity: <input type="number" name="qty"><br>
    <input type="submit" value="Add Book">
  </form>
</body>
</html>
```

## Output :-



localhost:8080/EbookShop/b...Apache Tomcat/9.0.104

localhost:8080/EbookShop/books

Home | Microsoft...ChatGPTGmailYouTubeMapsWelcome – Google...leetcodepwwskills.com/learn/Online Shopping si...Home | TraveleaseAll Bookmarks

Book List

ID	Title	Author	Price	Qty	Action
1	Let Us C	Yashavant Kanetkar	250.0	5	<a href="#">Buy</a>
2	Head First Java	Kathy Sierra	450.0	8	<a href="#">Buy</a>
3	Clean Code	Robert C. Martin	500.0	5	<a href="#">Buy</a>
4	Tomcat	shivraj	150.0	19	<a href="#">Buy</a>
5	Web Technology	Ms.Smita Bhosale	900.0	15	<a href="#">Buy</a>

[Add New Book](#)

localhost:8080/EbookShop/b...Apache Tomcat/9.0.104

localhost:8080/EbookShop/buy?id=5

Home | Microsoft...ChatGPTGmailYouTubeMapsWelcome – Google...leetcodepwwskills.com/learn/Online Shopping si...Home | TraveleaseAll Bookmarks

Book purchased successfully!

[Back to List](#)

localhost:8080/EbookShop/

Apache Tomcat/9.0.104

localhost:8080/EbookShop/books

Home | Microsoft...ChatGPTGmailYouTubeMapsWelcome – Google...leetcodepwwskills.com/learn/Online Shopping si...Home | TraveleaseAll Bookmarks

Book List

ID	Title	Author	Price	Qty	Action
1	Let Us C	Yashavant Kanetkar	250.0	5	<a href="#">Buy</a>
2	Head First Java	Kathy Sierra	450.0	8	<a href="#">Buy</a>
3	Clean Code	Robert C. Martin	500.0	5	<a href="#">Buy</a>
4	Tomcat	shivraj	150.0	19	<a href="#">Buy</a>
5	Web Technology	Ms.Smita Bhosale	900.0	14	<a href="#">Buy</a>

[Add New Book](#)

Add Book

Apache Tomcat/9.0.104

localhost:8080/EbookShop/addbook.html

Home | Microsoft...ChatGPTGmailYouTubeMapsWelcome – Google...leetcodepwwskills.com/learn/Online Shopping si...Home | TraveleaseAll Bookmarks

Add Book Form

Title:

Author:

Price:

Quantity:

localhost:8080/EbookShop/

Apache Tomcat/9.0.104

localhost:8080/EbookShop/addbook

Home | Microsoft...ChatGPTGmailYouTubeMapsWelcome – Google...leetcodepwwskills.com/learn/Online Shopping si...Home | TraveleaseAll Bookmarks

Book added successfully!

[View Book List](#)

localhost:8080/EbookShop/b

Apache Tomcat/9.0.104

localhost:8080/EbookShop/books

Home | Microsoft...ChatGPTGmailYouTubeMapsWelcome – Google...leetcodepwwskills.com/learn/Online Shopping si...Home | TraveleaseAll Bookmarks

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3	Clean Code	Robert C. Martin	500.0	5	<a href="#">Buy</a>
4	Tomcat	shivraj	150.0	19	<a href="#">Buy</a>
5	Web Technology	Ms.Smita Bhosale	900.0	14	<a href="#">Buy</a>
6	DSBDAL	Ms.Rupali Waghmode	700.0	9	<a href="#">Buy</a>

[Add New Book](#)