

Practical No. 9(a)

Q. Develop simple EJB application to demonstrate servlet hit count using Singleton Session Beans.

index.html

```
<html>
  <head>
    <title>TODO supply a title</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <meta http-equiv="Refresh" content="0; URL=ServletClient">

  </head>
  <body>
    <div>TODO write content</div>
  </body>
</html>
```

CountServletHitsBean.java

```
package ejb;
import javax.ejb.Singleton;

@Singleton
public class CountServletHitsBean {
    private int hitCount;
    public synchronized int getCount()
    {
        return hitCount++;
    }
}
```

ServletClient.java

```
package servlet;

import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
```

```
import ejb.CountServletHitsBean;
import javax.ejb.EJB;

@WebServlet(name = "ServletClient", urlPatterns = {"/ServletClient"})
public class ServletClient extends HttpServlet {

    @EJB CountServletHitsBean obj;
    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        try (PrintWriter out = response.getWriter()){

            out.println("Number of times this Servlet is accessed: <br>" + obj.getCount());
        }
    }
}
```

Output:



Practical No. 10(a)

Q. Develop simple Marks Entry Application to demonstrate accessing database using stateful EJB.

Create a database **marksdb** and create a table **marks**.

Key	Index	Null	Unique	Column name	Data type	Size
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	id	INT	0
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	sname	VARCHAR	30
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	marks1	INT	0
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	marks2	INT	0
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	marks3	INT	0

Add **mysql-connector-java-5.1.23-bin.jar** file to Library folder of your web application.

index.jsp

```
<%@page import="mybeans.MarksEntryBean"%>
<%@page import="javax.naming.InitialContext" %>
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>

<%!

private static MarksEntryBean obj;
public void jspInit()
{
    try{
        InitialContext ic = new InitialContext();
        obj = (MarksEntryBean)ic.lookup("java:global/P10_a/MarksEntryBean");
    }
    catch(Exception e)
    {
        System.out.println(e);
    }
}
%>

<%
```

```

        if(request.getParameter("InsertMarks")!=null)
        {
            String sname;
            int id, marks1,marks2,marks3;
            id = Integer.parseInt(request.getParameter("id"));
            sname = request.getParameter("sname");
            marks1 = Integer.parseInt(request.getParameter("m1"));
            marks2 = Integer.parseInt(request.getParameter("m2"));
            marks3 = Integer.parseInt(request.getParameter("m3"));
            obj.addMarks(id,sname,marks1,marks2,marks3);
            out.println("Marks entered successfully...!!");
        }
    }%>

<html>
<head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>JSP Page</title>
</head>
<body>
    <h2>Enter Details:</h2>
    <form name="result" method="post">
        Enter Student Id: <input type="text" name="id"><br>
        Enter Student Name: <input type="text" name="sname"><br>
        Enter Subject 1 Marks: <input type="text" name="m1"><br>
        Enter Subject 2 Marks: <input type="text" name="m2"><br>
        Enter Subject 3 Marks: <input type="text" name="m3"><br>
        <input type="submit" name="InsertMarks"/><br>
    </form>
</body>
</html>

```

MarksEntryBean.java

```

package mybeans;
import java.sql.*;
import javax.ejb.Stateful;

@Stateful
public class MarksEntryBean {
    Connection con = null;
    Statement st = null;
    String query = "";
    public void addMarks(int id, String sname, int m1, int m2, int m3)
    {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");

```

```

        con = DriverManager.getConnection("jdbc:mysql://localhost:3306/marksdb","root","");
        st = con.createStatement();
        query = "insert into marks(id,sname,marks1,marks2,marks3) values
        (" + id + "," + sname + "," + m1 + "," + m2 + "," + m3 + ")";
        st.executeQuery(query);
    }
    catch(Exception e) {System.out.println(e);}
}
}

```

Output:

← → ↻ ⓘ localhost:8080/P10_a/

Enter Details:

Enter Student Id:

Enter Student Name:

Enter Subject 1 Marks:

Enter Subject 2 Marks:

Enter Subject 3 Marks:

← → ↻ ⓘ localhost:8080/P10_a/

Marks entered successfully..!!

Enter Details:

Enter Student Id:

Enter Student Name:

Enter Subject 1 Marks:

Enter Subject 2 Marks:

Enter Subject 3 Marks:

#	id	sname	marks1	marks2	marks3
1	1	Robert	70	89	77