Problem statement: Illustrate the Servlet API to develop a web application to connect with a database.

AIM:

To demonstrate the usage of Servlet by develop a dynamic web application to connect with MySQL database.

ALGORITHM

Step 1: To open Eclipse IDE and create a Dynamic Web Project.

Step 2: To create a Insert HTML file to accept the user input marks in html form.

Step 3: To create a InsertData Servlet program to process the user request and store the marks into database.

Step 5: To create a Search HTML file to accept the user input as roll number in html form.

Step 6: To create a DispData Servlet program to process the user request and retrieve the selected roll number and process the result status from database.

PROGRAM:

MySQL:

Use student;

Create table mark(rollno int,name varchar(50),section varchar(1),s1 int,s2 int,s3 int, s4 int, s5 int,s6 int,l1 int,l2 int);

Insert.html

<!DOCTYPE html>

<html>

<head>

<title>Insert title here</title>

</head>

<body>

<form action=*"./InsertData"* method=*"post"*>

<table>

<tr><td>Enter Roll No:</td>

<td><input type=*"text"* name=*"rollno"*/></td>

</tr>

<tr><td>Enter Name:</td>

<td><input type=*"text"* name=*"name"*/></td>

</tr>

<tr><td>Enter Section:</td>

<td><select name=*"section"*>

<option>A</option>

<option>B</option>

<option>C</option>

<option>D</option>

</select>

</td>

</tr>

<tr><td>Enter Subjet1 Mark:</td>

<td><input type=*"text"* name=*"sub1"*/></td>

</tr>

<tr><td>Enter Subject2 Mark:</td>

<td><input type=*"text"* name=*"sub2"*/></td>

</tr>

<tr><td>Enter Subjet3 Mark:</td>

<td><input type=*"text"* name=*"sub3"*/></td>

</tr>

<tr><td>Enter Subject4 Mark:</td>

<td><input type=*"text"* name=*"sub4"*/></td>

</tr>

<tr><td>Enter Subject5 Mark:</td>

<td><input type=*"text"* name=*"sub5"*/></td>

</tr>

<tr><td>Enter Subject6 Mark:</td>

<td><input type=*"text"* name=*"sub6"*/></td>

</tr>

<tr><td>Enter Lab1 Mark:</td>

<td><input type=*"text"* name=*"lab1"*/></td>

</tr>

<tr><td>Enter Lab2 Mark:</td>

<td><input type=*"text"* name=*"lab2"*/></td>

</tr>

<tr><td><input type=*"submit"*/></td></tr>

</table>

</form>

</body>

</html>

InsertData.java

**protected** **void** doPost(HttpServletRequest request, HttpServletResponse response) **throws** ServletException, IOException {

// **TODO** Auto-generated method stub

**try**{

Class.*forName*("com.mysql.jdbc.Driver");

Connection con=DriverManager.*getConnection*("jdbc:mysql://localhost:3306/god?characterEncoding=latin1","root","admin123");

PreparedStatement st = con.prepareStatement("insert into mark values(?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)");

st.setInt(1, Integer.*valueOf*(request.getParameter("rollno")));

st.setString(2, request.getParameter("name"));

st.setString(3, request.getParameter("section"));

st.setInt(4, Integer.*valueOf*(request.getParameter("sub1")));

st.setInt(5, Integer.*valueOf*(request.getParameter("sub2")));

st.setInt(6, Integer.*valueOf*(request.getParameter("sub3")));

st.setInt(7, Integer.*valueOf*(request.getParameter("sub4")));

st.setInt(8, Integer.*valueOf*(request.getParameter("sub5")));

st.setInt(9, Integer.*valueOf*(request.getParameter("sub6")));

st.setInt(10, Integer.*valueOf*(request.getParameter("lab1")));

st.setInt(11, Integer.*valueOf*(request.getParameter("lab2")));

st.executeUpdate();

st.close();

con.close();

PrintWriter out = response.getWriter();

out.println("<html><body><b>Successfully Inserted"

+ "</b></body></html>");

}**catch**(Exception e){

System.***out***.println(e);}

}

}

Search.html

<!DOCTYPE html>

<html>

<head>

<meta charset=*"ISO-8859-1"*>

<title>Insert title here</title>

</head>

<body>

<form action=*"./DispData"*>

Enter your Roll No:<input type=*"text"* name=*"rollno"*/><br/>

<input type=*"submit"* value=*"search"*/>

</form>

</body>

</html>

DispData.java

**protected** **void** doGet(HttpServletRequest request, HttpServletResponse response) **throws** ServletException, IOException {

// **TODO** Auto-generated method stub

response.setContentType("text/html");

PrintWriter out = response.getWriter();

**try**{

String rno=request.getParameter("rollno");

**int** rn=Integer.*valueOf*(rno);

Class.*forName*("com.mysql.jdbc.Driver");

Connection con=DriverManager.*getConnection*("jdbc:mysql://localhost:3306/god?characterEncoding=latin1","root","admin123");

PreparedStatement ps=con.prepareStatement("select \* from mark where rollno=?");

ps.setInt(1,rn);

out.print("<table width=50% border=1>");

out.print("<caption>Result:</caption>");

ResultSet rs=ps.executeQuery();

/\* Printing column names \*/

ResultSetMetaData rsmd=rs.getMetaData();

**int** total=rsmd.getColumnCount();

out.print("<tr>");

**for**(**int** i=1;i<=total;i++)

{

out.print("<th>"+rsmd.getColumnName(i)+"</th>");

}

out.print("<th>Status</th></tr>");

/\* Printing result \*/

**while**(rs.next())

{

out.print("<tr><td>"+rs.getInt(1)+"</td><td>"+rs.getString(2)+ "</td><td>"+rs.getString(3)+ rs.getInt(4)+"</td><td>" + rs.getInt(5)+"</td><td>" + rs.getInt(6)+"</td><td>"+ rs.getInt(7)+"</td><td>" + rs.getInt(8)+"</td><td>"+ rs.getInt(9)+"</td><td>"+ rs.getInt(10)+"</td><td>"+rs.getInt(11)+"</td><td>");

**if**(rs.getInt(4)>=40 && rs.getInt(5)>=40 && rs.getInt(6)>=40 && rs.getInt(7)>=40 && rs.getInt(8)>=40 && rs.getInt(9)>=40 && rs.getInt(10)>=40 && rs.getInt(11)>=40)

out.print("<td>Pass</td>"+"</td></tr>");

**else**

out.print("<td>Fail</td>"+"</td></tr>");

}

out.print("</table>");

}**catch** (Exception e2) {e2.printStackTrace();}

**finally**{out.close();}

}

}

RESULT:

Thus the dynamic web application has been created and process the exam marks with servlet programs.