IMPLEMENT STUDENT MARK CALCULATION USING SERVLET

WITH DATABASE CONNECTIVITY

AIM:

To implement student mark calculation using Servlet with database connectivity

ALGORITHM:

1. Sets the content type of the response to text/html;charset=UTF-8.
2. Defines the database connection parameters for a MySQL database named courseregister.
3. Gets a PrintWriter object to write the response.
4. Loads the MySQL driver and connects to the database using the defined parameters.
5. Gets the studentid parameter from the request and uses it to prepare an SQL query to select the name, webmark, aimark, and compilermark columns for the corresponding student from the student table.
6. Generates HTML dynamically to display the student's name and total mark (sum of webmark, aimark, and compilermark).
7. Closes the database connection.

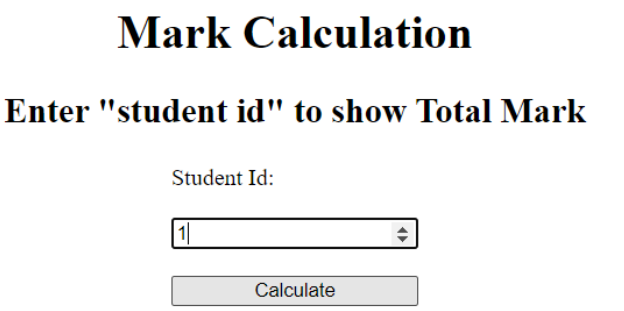
CODE:

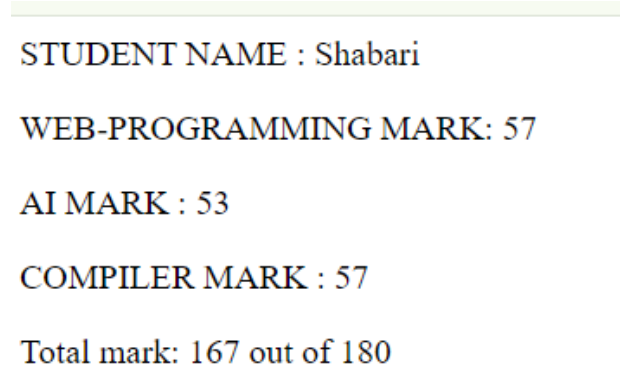
Markcal.java

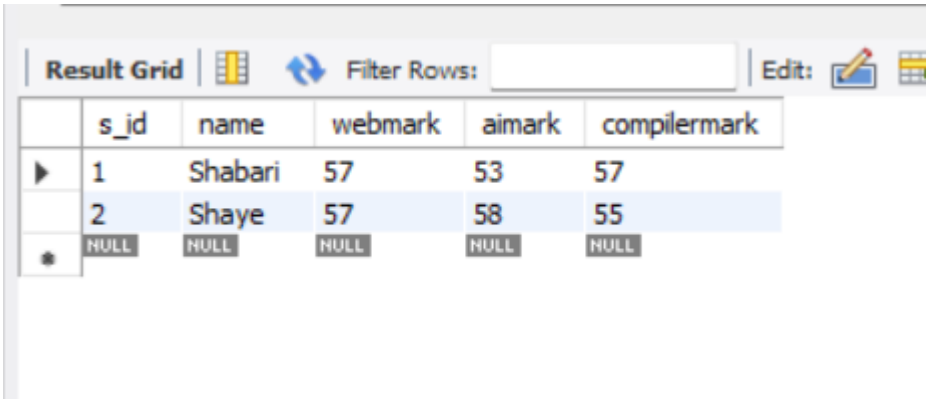
```
import jakarta.servlet.*;
import jakarta.servlet.http.*;
import java.io.*;
import java.sql.*;

public class markcal extends HttpServlet {

  private static final long serialVersionUID = 1L;

  protected void doGet(
    HttpServletRequest request,
    HttpServletResponse response
  ) throws ServletException, IOException {
    response.setContentType("text/html;charset=UTF-8");
```

```
    // Database connection parameters
    String url = "jdbc:mysql://localhost:3306/courseregister";
    String username = "root";
    String password = "2323";

    PrintWriter out = response.getWriter();
    try {
      // Load the MySQL driver
      Class.forName("com.mysql.jdbc.Driver");

      // Connect to the database
      Connection con = DriverManager.getConnection(url, username, password);

      // Get the studentid parameter from the request
      int studentId = Integer.parseInt(request.getParameter("studentid"));

      // Prepare the SQL statement for execution
      PreparedStatement stmt = con.prepareStatement(
        "SELECT name, webmark, aimark, compilermark FROM student WHERE s_id = ?"
      );
      stmt.setInt(1, studentId);
      ResultSet rs = stmt.executeQuery();

      // Generate HTML dynamically
      out.println("<html><body>");

      if (rs.next()) {
        String name = rs.getString("name");
        int webmark = rs.getInt("webmark");
        int aimark = rs.getInt("aimark");
        int compilermark = rs.getInt("compilermark");

        int totalMark = webmark + aimark + compilermark;

        out.println("<p> STUDENT NAME : " + name + "</p>");

        out.println("<p> WEB-PROGRAMMING MARK: " + webmark + "</p>");
        out.println("<p> AI MARK : " + aimark + "</p>");
        out.println("<p> COMPILER MARK : " + compilermark + "</p>");

        out.println("<p> Total mark: " + totalMark + " out of 180 </p>");
      } else {
        out.println("<p> No student found with the given studentid.</p>");
      }

      out.println("</body></html>");

      // Close the database connection
      con.close();
    } catch (ClassNotFoundException | SQLException e) {
      out.println("<h2>Error: " + e.getMessage() + "</h2>");
    }
  }
}
```

OUTPUT SCREEN SHOT







RESULT:

Thus, we have successfully implemented student mark calculation using servlet with database connectivity