Stock Management

Database Setup (MySQL example):

```sql
CREATE DATABASE stock_management;

USE stock_management;

CREATE TABLE stock (

id INT AUTO_INCREMENT PRIMARY KEY,

product_name VARCHAR(255),

quantity INT

);
```

HTML Form (stockForm.html):

```html
<!DOCTYPE html>

<html>

<head><title>Stock Management</title></head>

<body>

<h2>Manage Stock</h2>

<form action="stockAction" method="POST">

Product Name: <input type="text" name="product_name" required><br>

Quantity: <input type="number" name="quantity" required><br>

<input type="submit" name="action" value="Add Product">

<input type="submit" name="action" value="Update Product">

<input type="submit" name="action" value="Delete Product">

</form>

</body>

</html>
```

Servlet Code (StockManagementServlet.java):

```java
package com.example;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.*;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;


@WebServlet("/stockAction")

public class StockManagementServlet extends HttpServlet {

private Connection getConnection() throws SQLException {

String url = "jdbc:mysql://localhost:3306/stock_management";

String username = "root";

String password = "root"; // replace with your database password

return DriverManager.getConnection(url, username, password);

}

protected void doPost(HttpServletRequest request, HttpServletResponse
response)

throws ServletException, IOException {

String action = request.getParameter("action");

String productName = request.getParameter("product_name");

int quantity = Integer.parseInt(request.getParameter("quantity"));

try (Connection conn = getConnection()) {
```

```java
switch(action) {

case "Add Product":

try (PreparedStatement stmt = conn.prepareStatement(

"INSERT INTO stock (product_name, quantity)

VALUES (?, ?)")) {

stmt.setString(1, productName);

stmt.setInt(2, quantity);

stmt.executeUpdate();


response.getWriter().write("<h1>Product Added


Successfully</h1>");
}
break;


case "Update Product":

try (PreparedStatement stmt = conn.prepareStatement(

"UPDATE stock SET quantity = ? WHERE product_name

= ?")) {

stmt.setInt(1, quantity);

stmt.setString(2, productName);


stmt.executeUpdate();


response.getWriter().write("<h1>Product Updated


Successfully</h1>");
```

```java
        }
        break;

        case "Delete Product":
        try (PreparedStatement stmt = conn.prepareStatement(
        "DELETE FROM stock WHERE product_name = ?")) {
        stmt.setString(1, productName);

        stmt.executeUpdate();

        response.getWriter().write("<h1>Product Deleted
        Successfully</h1>");
        }
        break;
        default:
        response.getWriter().write("<h1>Invalid Action</h1>");
        }
        } catch (SQLException e) {

        e.printStackTrace();
        response.getWriter().write("<h1>Database Error: " +
        e.getMessage() + "</h1>");
        }
        }
        }
```

Output

Manage Stock

Product Name: Phone
Quantity: 10
[Add Product] [Update Product] [Delete Product]

Product Added Successfully

Back to Form

←T→				id	product_name	quantity
☐	🖉 Edit	Copy	⊖ Delete	1	Phone	10

Servlet Code (DisplayProductsServlet.java):

```java
package com.example;

import java.io.*;
import java.sql.*;
import javax.servlet.*;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.*;
@WebServlet("/displayProducts")
public class DisplayProductsServlet extends HttpServlet {
    // Reuse your existing connection method
    private Connection getConnection() throws SQLException {
        String url =
"jdbc:mysql://localhost:3306/stock_management?useSSL=false&serverTimezone=UTC";
        String username = "root";
        String password = "316830059";
        return DriverManager.getConnection(url, username, password);
    }
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
response.setContentType("text/html");
PrintWriter out = response.getWriter();
out.println("<!DOCTYPE html>");
out.println("<html>");
out.println("<head>");
out.println("<title>Stock List</title>");
out.println("<style>");
out.println("table { border-collapse: collapse; width: 50%; margin: 20px auto; }");
out.println("th, td { border: 1px solid #ddd; padding: 8px; text-align: left; }");
out.println("th { background-color: #f2f2f2; }");
out.println("</style>");
out.println("</head>");
out.println("<body>");
out.println("<h1 style='text-align: center;'>Current Stock List</h1>");

try (Connection conn = getConnection();
        Statement stmt = conn.createStatement();
ResultSetrs = stmt.executeQuery("SELECT * FROM stock")) {
out.println("<table>");
out.println("<tr><th>ID</th><th>Product Name</th><th>Quantity</th></tr>");

        while (rs.next()) {
out.println("<tr>");
out.println("<td>" + rs.getInt("id") + "</td>");
out.println("<td>" + rs.getString("product_name") + "</td>");
out.println("<td>" + rs.getInt("quantity") + "</td>");
out.println("</tr>");
        }
```

```
out.println("</table>");
    } catch (SQLException e) {
out.println("<h2 style='color: red; text-align: center;'>Error retrieving stock: "
            + e.getMessage() + "</h2>");
e.printStackTrace();    }

out.println("<div style='text-align: center; margin-top: 20px;'>");
out.println("<a href='stockForm.html'>Back to Stock Management</a>");
out.println("</div>");
out.println("</body>");
out.println("</html>");
  }
}
```

Updated stockForm.html

```
<!DOCTYPE html>
<html>
<head><title>Stock Management</title>
<style>   body { font-family: Arial, sans-serif; margin: 20px; }
        form { max-width: 500px; margin: 0 auto; padding: 20px; border: 1px solid #ddd; border-
radius: 5px; }
        input[type="text"], input[type="number"] { width: 100%; padding: 8px; margin: 5px 0 15px; }
         input[type="submit"] { padding: 8px 15px; margin-right: 10px; }
.view-link { display: block; text-align: center; margin-top: 20px; }
</style>
</head>
<body><h2 style="text-align: center;">  Manage Stock  </h2>
<form action="stockAction" method="POST">
        Product Name: <input type="text" name="product_name" required><br>
         Quantity: <input type="number" name="quantity" required><br>
<input type="submit" name="action" value="Add Product">
<input type="submit" name="action" value="Update Product">
<input type="submit" name="action" value="Delete Product">
</form>
<div class="view-link">
<a href="displayProducts"> View All Products  </a>
</div>
</body>
</html>
```

Output

Database

Current Stock List

ID	Product Name	Quantity
1	phone	10
2	iphone	20

Back to Stock Management

←T→		▼	id	product_name	quantity
☐	🖊 Edit ⊞ Copy ⊖ Delete		1	phone	10
☐	🖊 Edit ⊞ Copy ⊖ Delete		2	iphone	20

↰ ☐ Check all   *With selected:*   🖊 Edit   ⊞ Copy   ⊖ Delete   🖼 Export