Dao Class

```java
package Dao;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.ArrayList;
import java.util.List;

public class DaoEtudiant {

	//Method to create our connection with Database
		static Connection conn = null;
		public static void StartConnection()
		{
			try {

				Class.forName("com.mysql.cj.jdbc.Driver");
				conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/TP_JEE?useSSL=false",
"root", "");

				/*String url =
"jdbc:mysql://localhost:3306/testjee?useUnicode=true&useJDBCCompliantTimezoneShift=tr
ue&useLegacyDatetimeCode=false&serverTimezone=UTC";
				conn = DriverManager.getConnection(url, "root", ""); */

			}catch(Exception exp)
			{
				System.out.println();
			}
		}


		//method to create or add a new Etudiant to our Database
		public static int CreatEtudiant(Etudiant E)
		{
			int NumRows = 0;
			try {

				//create Query
				String sql = "insert into etudiant(name, password, email,
country) values(?, ?, ?, ?)";
				PreparedStatement statement = conn.prepareStatement(sql);

				statement.setString(1, E.getName());
				statement.setString(2, E.getPassword());
				statement.setString(3, E.getEmail());
				statement.setString(4, E.getCourntry());

				NumRows = statement.executeUpdate();
```

```java
                conn.close();

        }catch(Exception exp) {
                System.out.println(exp);
        }
        return NumRows;
}

//Method to Update Etudiant
public static int UpdateEtudiant(Etudiant Etd)
{
        int NumRows = 0;
        try {

                String Sql = "update etudiant set name = ? , password = ? ,
email = ? , country = ? WHERE id = ?";

                        PreparedStatement Statement = conn.prepareStatement(Sql);
                        Statement.setString(1, Etd.getName());
                        Statement.setString(2, Etd.getPassword());
                        Statement.setString(3, Etd.getEmail());
                        Statement.setString(4, Etd.getCourntry());
                        Statement.setInt(5, Etd.getId());

                        NumRows = Statement.executeUpdate();
                        conn.close();

        }catch(Exception exp) {
                System.out.println(exp);
        }
        return NumRows;
}

//delete Etudiant from Database
public static int DeleteStudent(int id)
{
        int NumRows = 0;
        try {

                String Sql = "delete from etudiant where id = ?";

                        PreparedStatement statement = conn.prepareStatement(Sql);
                        statement.setInt(1, id);

                        NumRows = statement.executeUpdate();
                        conn.close();

        }catch(Exception exp) {
                System.out.println(exp);
        }


        return NumRows;
}
```

```java
//find Etudiant from table etudiant
public static Etudiant FindEtudiant(int id)
{
        Etudiant etd = new Etudiant();

        try {

                String Sql = "select * from etudiant where id = ?";
                PreparedStatement statement = conn.prepareStatement(Sql);

                statement.setInt(1, id);
                ResultSet result = statement.executeQuery();

                while(result.next()) {
                        etd.setId(result.getInt(1));
                        etd.setName(result.getString(2));
                        etd.setPassword(result.getString(3));
                        etd.setEmail(result.getString(4));
                        etd.setCourntry(result.getString(5));
                }

                conn.close();

        }catch(Exception exp) {
                System.out.println(exp);
        }

        return etd;
}

//select All Etudiants from table etudiant
public static List<Etudiant> FindAll() {
        List<Etudiant> all_Etd = new ArrayList<Etudiant>();

        try {

                String Sql = "select * from etudiant";
                PreparedStatement statement = conn.prepareStatement(Sql);

                ResultSet result = statement.executeQuery();
                while(result.next()) {
                        Etudiant etd = new Etudiant();
                        etd.setId(result.getInt(1));
                        etd.setName(result.getString(2));
                        etd.setPassword(result.getString(3));
                        etd.setEmail(result.getString(4));
                        etd.setCourntry(result.getString(5));
                        all_Etd.add(etd);
                }
                conn.close();


        }catch(Exception exp) {
                System.out.println(exp);
        }
```

```
                    return all_Etd;
            }

}
```

Create Servlet

```java
package Controller;

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 Dao.DaoEtudiant;
import Dao.Etudiant;

@WebServlet("/CreatServlet")
public class CreatServlet extends HttpServlet {
        private static final long serialVersionUID = 1L;

    public CreatServlet() {
        super();
        // TODO Auto-generated constructor stub
    }

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


        }

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

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

                //out.println("<h1>heloo this is Creat Servlet</h1>");
                //String id   = request.getParameter("id");
                String name = request.getParameter("fname");
                String password = request.getParameter("password");
                String email = request.getParameter("email");
                String country = request.getParameter("country");
```

```java
		//out.println("nom : "+name+" password : " +password+ " email : "
+email+ " country : " +country);
		Etudiant etd = new Etudiant();

		etd.setName(name);
		etd.setPassword(password);
		etd.setEmail(email);
		etd.setCourntry(country);

		//out.println(etd);
		DaoEtudiant.StartConnection();
		int NumRow = DaoEtudiant.CreatEtudiant(etd);

		if(NumRow>0)
			//out.println("<h3>Etudiant inserted successffully</h3>");
			response.sendRedirect("ShowEtudians");
		else
			out.println("Echec d'insertion !!!");
	}

}
```

Show All Student

package Controller;

import java.io.IOException;

import java.io.PrintWriter;

import java.util.List;

import javax.servlet.RequestDispatcher;

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 javax.servlet.http.HttpSession;

```java
import Dao.DaoEtudiant;

import Dao.Etudiant;


/**
 * Servlet implementation class ShowEtudians
 */
@WebServlet("/ShowEtudians")
public class ShowEtudians extends HttpServlet {
    private static final long serialVersionUID = 1L;


    public ShowEtudians() {
        super();
        // TODO Auto-generated constructor stub
    }


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


        PrintWriter out = response.getWriter();

        response.setContentType("text/html");


        //out.println("<h1>hello this is all etudiant</h1>");

        //HttpSession session = request.getSession();

        DaoEtudiant.StartConnection();

        List<Etudiant> AllEtudiant = DaoEtudiant.FindAll();

        //session.setAttribute("AllEtudiant", AllEtudiant);

        //response.sendRedirect("list-etudiant.jsp");
```

```java
                //out.println(AllEtudiant);


                request.setAttribute("AllEtudiant", AllEtudiant);
        RequestDispatcher dispatcher = request.getRequestDispatcher("list-etudiant.jsp");
        dispatcher.forward(request, response);
            }


        protected void doPost(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
                // TODO Auto-generated method stub
                doGet(request, response);
            }


}
```

JSP to show all Students

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<%@page import="java.sql.ResultSet"%>
<%@page import="java.sql.Statement"%>
<%@page import="Dao.DaoEtudiant"%>
<%@page import="Dao.Etudiant"%>
<%@page import="java.sql.Connection"%>
<%@page import="java.util.List"%>

<jsp:useBean id="etudiant" class="Dao.Etudiant" scope="request" />

<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Gestion Des Erudiant</title>
```

```html
<link rel="stylesheet" href="css/bootstrap.min.css">
<link rel="stylesheet" href="css/bootstrap.css">
<link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css"
integrity="sha384-ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
crossorigin="anonymous">

</head>
<body>
 <header>
      <nav class="navbar navbar-expand-sm navbar-dark bg-primary mb-4">
         <div class="container">
             <a class="navbar-brand" href="#">Gestion Des Etudiant</a>
             <button class="navbar-toggler d-lg-none" type="button" data-
toggle="collapse" data-target="#collapsibleNavId" aria-controls="collapsibleNavId"
                 aria-expanded="false" aria-label="Toggle navigation">
                 <span class="navbar-toggler-icon"></span>
             </button>
             <div class="collapse navbar-collapse" id="collapsibleNavId">
                 <ul class="navbar-nav ml-auto mt-2 mt-lg-0">
                     <li style="margin-right: 20px" class="nav-item active">
                         <a class="nav-link" href="#">&copy Hamza Moumad <span
class="sr-only">(current)</span></a>
                     </li>
                     <li class="nav-item active">
                         <a class="nav-link" href="#">SMI S6<span class="sr-
only">(current)</span></a>
                     </li>
                 </ul>

             </div>
         </div>
     </nav>
         </header>
         <br>

         <div class="row">
             <!-- <div class="alert alert-success"
*ngIf='message'>{{message}}</div> -->

             <div class="container">
                 <h3 class="text-center">List of All Students</h3>
                 <hr>
                 <div class="container text-left">

                     <a href="Form.html" class="btn btn-success">Add New User</a>
                 </div><br>
     <table class="table table-striped text-center">
     <thead>
   <tr>
      <th>ID</th>
      <th>Name</th>
      <th>password</th>
      <th>Email</th>
      <th>Country</th>
```

```html
            <th>Actions</th>
        </tr>
        </thead>
        <tbody>
            <c:forEach var="etudiant" items="${AllEtudiant}">
        <tr>
            <td style="padding-top: 16px;">
                <c:out value='${etudiant.id}' />
            </td>
            <td style="padding-top: 16px;">
                <c:out value='${etudiant.name}' />
            </td>
            <td style="padding-top: 16px;">
                <c:out value='${etudiant.password}' />
            </td>
            <td style="padding-top: 16px;">
                <c:out value='${etudiant.email}' />
            </td>
            <td style="padding-top: 16px;">
                <c:out value='${etudiant.courntry}' />
            </td>
            <td><a class="btn btn-success" href="EditServlet?id=<c:out
value='${etudiant.id}' />">Edit</a>     
            <a class="btn btn-danger" href="DeletServlet?id=<c:out
value='${etudiant.id}' />">Delete</a></td>
        </tr>
            </c:forEach>
            <!-- } -->
            </tbody>

    </table>
</body>
</html>
```

Delete Servlet

package Controller;

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;

```java
import javax.servlet.http.HttpServletResponse;

import Dao.DaoEtudiant;

/**
 * Servlet implementation class DeletServlet
 */
@WebServlet("/DeletServlet")
public class DeletServlet extends HttpServlet {
        private static final long serialVersionUID = 1L;

    public DeletServlet() {
        super();
        // TODO Auto-generated constructor stub
    }

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

                PrintWriter out = response.getWriter();

                response.setContentType("text/html");

                //out.println("<h1>heloo this is Delete Servlet</h1>");

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

                //out.println(id);

                DaoEtudiant.StartConnection();

                int NumRows = DaoEtudiant.DeleteStudent(Integer.parseInt(id));


                if(NumRows>0)

                        response.sendRedirect("ShowEtudians");

                else
```

```
                out.println("<h1>Echec de suppression !!!</h1>");

        }


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

                // TODO Auto-generated method stub

                doGet(request, response);

        }


}
```

Delete Servlet

```java
package Controller;


import java.io.IOException;

import java.io.PrintWriter;


import javax.servlet.RequestDispatcher;

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 Dao.DaoEtudiant;

import Dao.Etudiant;


/**

 * Servlet implementation class EditServlet

 */
```

```java
@WebServlet("/EditServlet")
public class EditServlet extends HttpServlet {
        private static final long serialVersionUID = 1L;


   public EditServlet() {
      super();
      // TODO Auto-generated constructor stub
   }


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


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


                //out.println("<h1>heloo this is Edite Servlet</h1>");


                DaoEtudiant.StartConnection();
                int id = Integer.parseInt(request.getParameter("id"));
                Etudiant etd = new Etudiant();
                etd = DaoEtudiant.FindEtudiant(id);
                out.println(etd);


                /*
                String name = request.getParameter("fname");
                String password = request.getParameter("password");
                String email = request.getParameter("email");
                String country = request.getParameter("country");


                Etudiant etd = new Etudiant();
                etd.setId(Integer.parseInt(id));
```

```java
                etd.setName(name);

                etd.setPassword(password);

                etd.setEmail(email);

                etd.setCourntry(country);

                */


                request.setAttribute("etd", etd);

        RequestDispatcher dispatcher = request.getRequestDispatcher("edit-etudiant.jsp");

        dispatcher.forward(request, response);

            }


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

                // TODO Auto-generated method stub

                doGet(request, response);

            }



}
```

JSP Form Edit

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<%@page import="java.sql.ResultSet"%>
<%@page import="java.sql.Statement"%>
<%@page import="Dao.DaoEtudiant"%>
<%@page import="Dao.Etudiant"%>
<%@page import="java.sql.Connection"%>
<%@page import="java.util.List"%>

<jsp:useBean id="etudiant" class="Dao.Etudiant" scope="request" />

<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Gestion Des Erudiant</title>
<link rel="stylesheet" href="css/bootstrap.min.css">
```

```html
<link rel="stylesheet" href="css/bootstrap.css">
<link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css"
integrity="sha384-ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
crossorigin="anonymous">

</head>
<body>
 <header>
     <nav class="navbar navbar-expand-sm navbar-dark bg-primary mb-4">
         <div class="container">
             <a class="navbar-brand" href="#">Gestion Des Etudiant</a>
             <button class="navbar-toggler d-lg-none" type="button" data-
toggle="collapse" data-target="#collapsibleNavId" aria-controls="collapsibleNavId"
                 aria-expanded="false" aria-label="Toggle navigation">
                 <span class="navbar-toggler-icon"></span>
             </button>
             <div class="collapse navbar-collapse" id="collapsibleNavId">
                 <ul class="navbar-nav ml-auto mt-2 mt-lg-0">
                     <li style="margin-right: 20px" class="nav-item active">
                         <a class="nav-link" href="#">&copy Hamza Moumad <span
class="sr-only">(current)</span></a>
                     </li>
                     <li class="nav-item active">
                         <a class="nav-link" href="#">SMI S6<span class="sr-
only">(current)</span></a>
                     </li>
                 </ul>

             </div>
         </div>
     </nav>
 </header><br>

 <div class="row">
     <!-- <div class="alert alert-success" *ngIf='message'>{{message}}</div> -->

     <div class="container">
         <h3 class="text-center">List of All Students</h3> <hr>
         <div class="container text-left">
                 <a href="Form.html" class="btn btn-success">Add New User</a>
     </div>

     <div class="card-body">
      <form action="EditionServ" method="POST">

             <div class="form-group">
                 <input value='${etd.id}' type="hidden" class="form-control"
name="id">
             </div>

             <div class="form-group">
                 <label for=""><b>Full Name :</b></label>
                 <input value='${etd.name}' type="text" class="form-control"
name="fname">
```

```html
            </div>
            <div class="form-group">
                <label for=""><b>Password :</b></label>
                <input value='${etd.password}' type="text" class="form-control"
name="password">

            </div>
            <div class="form-group">
                <label for=""><b>Email :</b></label>
                <input value='${etd.email}' class="form-control" name="email">
            </div>

            <div class="form-group">
                <label for=""><b>Country :</b></label>
                <input value='${etd.courntry}' class="form-control" name="country" >
            </div>

             <button style="float: right; margin-top: 20px" type="submit" class="btn
btn-primary">Editer</button>
        </form>
        </div>
</body>
</html>
```

Edition Servlet

```java
package Controller;


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 Dao.DaoEtudiant;

import Dao.Etudiant;
```

```java
@WebServlet("/EditionServ")

public class EditionServ extends HttpServlet {

        private static final long serialVersionUID = 1L;


    public EditionServ() {

        super();

        // TODO Auto-generated constructor stub

    }


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

                // TODO Auto-generated method stub

                response.getWriter().append("Served at:
").append(request.getContextPath());

        }


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


                PrintWriter out = response.getWriter();

                response.setContentType("text/html");


                //out.println("<h1>heloo this is edition Servlet</h1>");

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

                String name = request.getParameter("fname");

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

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

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


                Etudiant etd = new Etudiant();

                etd.setId(Integer.parseInt(id));

                etd.setName(name);

                etd.setPassword(password);
```

```java
        etd.setEmail(email);

        etd.setCourntry(country);


        DaoEtudiant.StartConnection();

        int Statut = DaoEtudiant.UpdateEtudiant(etd);


        if(Statut>0)

            response.sendRedirect("ShowEtudians");

        else

            out.println("<h1>Echec d'Updating !!!</h1>");

    }


}
```