Crud operation using Servlet and JDBC

SQL Query

create table user905(id number,name varchar2(30),password varchar2(30),

email varchar2(30),salary varcahr2(20),address varchar2(20),country varchar2(30));

select \* from user905;

create sequence crud increment by 1 start with 1;

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**Login.html**

<!DOCTYPE html>

<html>

<head>

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

<title>Mphasis Employee Details</title>

</head>

<body>

<h1>Add New Employee</h1>

<form action=*"SaveServlet"* method=*"post"*>

<table>

<tr><td>Name:</td><td><input type=*"text"* name=*"name"*/></td></tr>

<tr><td>Password:</td><td><input type=*"password"* name=*"password"*/></td></tr>

<tr><td>Email:</td><td><input type=*"email"* name=*"email"*/></td></tr>

<tr><td>Salary:</td><td><input type=*"text"* name=*"salary"*/></td></tr>

<tr><td>Address:</td><td><input type=*"text"* name=*"address"*/></td></tr>

<tr><td>Country:</td><td>

<select name=*"country"* style="width:*150px*">

<option>India</option>

<option>USA</option>

<option>UK</option>

<option>Other</option>

</select>

</td></tr>

<tr><td colspan=*"2"*><input type=*"submit"* value=*"Save Employee"*/></td></tr>

</table>

</form>

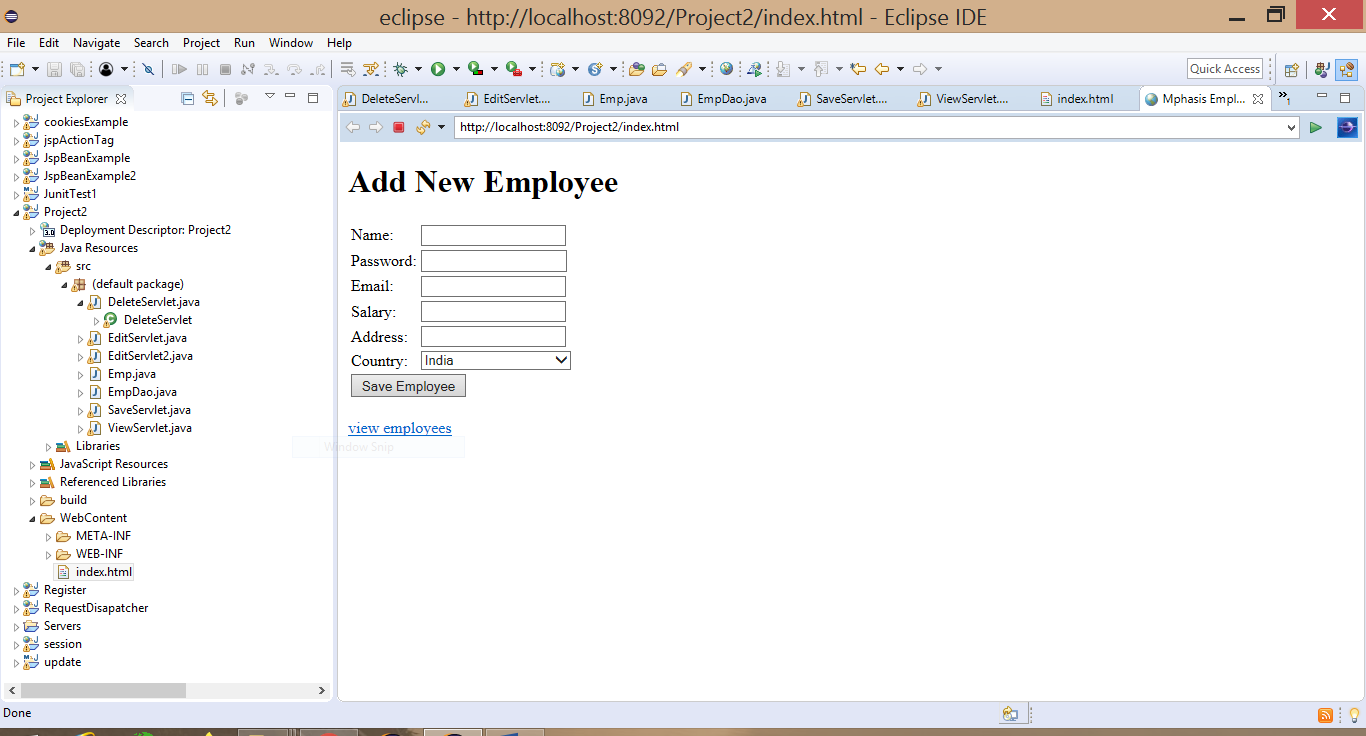
<br/>

<a href=*"ViewServlet"*>view employees</a>

</body>

</html>

Output:



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**Emp.java**

**public** **class** Emp {

**private** **int** id;

**private** String name,password,email,salary,address,country;

**public** **int** getId() {

**return** id;

}

**public** **void** setId(**int** id) {

**this**.id = id;

}

**public** String getSalary() {

**return** salary;

}

**public** **void** setSalary(String salary) {

**this**.salary = salary;

}

**public** String getName() {

**return** name;

}

**public** **void** setName(String name) {

**this**.name = name;

}

**public** String getPassword() {

**return** password;

}

**public** **void** setPassword(String password) {

**this**.password = password;

}

**public** String getEmail() {

**return** email;

}

**public** **void** setEmail(String email) {

**this**.email = email;

}

**public** String getAddress() {

**return** address;

}

**public** **void** setAddress(String address) {

**this**.address = address;

}

**public** String getCountry() {

**return** country;

}

**public** **void** setCountry(String country) {

**this**.country = country;

}

}

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**EmpDao.java**

**import** java.util.\*;

**import** java.sql.\*;

**public** **class** EmpDao {

**public** **static** Connection getConnection(){

Connection con=**null**;

**try**{

Class.*forName*("oracle.jdbc.driver.OracleDriver");

con=DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","1234");

}**catch**(Exception e){System.***out***.println(e);}

**return** con;

}

**public** **static** **int** save(Emp e){

**int** status=0;

**try**{

Connection con=EmpDao.*getConnection*();

PreparedStatement ps=con.prepareStatement("insert into user906(id,name,password,email,salary,address,country) values (crud.nextval,?,?,?,?,?,?)");

ps.setString(1,e.getName());

ps.setString(2,e.getPassword());

ps.setString(3,e.getEmail());

ps.setString(4,e.getSalary());

ps.setString(5,e.getAddress());

ps.setString(6,e.getCountry());

status=ps.executeUpdate();

con.close();

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

**return** status;

}

**public** **static** **int** update(Emp e){

**int** status=0;

**try**{

Connection con=EmpDao.*getConnection*();

PreparedStatement ps=con.prepareStatement("update user906 set name=?,password=?,email=?,salary=?,address=?,country=? where id=?");

ps.setString(1,e.getName());

ps.setString(2,e.getPassword());

ps.setString(3,e.getEmail());

ps.setString(4,e.getSalary());

ps.setString(5,e.getAddress());

ps.setString(6,e.getCountry());

ps.setInt(7,e.getId());

status=ps.executeUpdate();

con.close();

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

**return** status;

}

**public** **static** **int** delete(**int** id){

**int** status=0;

**try**{

Connection con=EmpDao.*getConnection*();

PreparedStatement ps=con.prepareStatement("delete from user906 where id=?");

ps.setInt(1,id);

status=ps.executeUpdate();

con.close();

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

**return** status;

}

**public** **static** Emp getEmployeeById(**int** id){

Emp e=**new** Emp();

**try**{

Connection con=EmpDao.*getConnection*();

PreparedStatement ps=con.prepareStatement("select \* from user906 where id=?");

ps.setInt(1,id);

ResultSet rs=ps.executeQuery();

**if**(rs.next()){

e.setId(rs.getInt(1));

e.setName(rs.getString(2));

e.setPassword(rs.getString(3));

e.setEmail(rs.getString(4));

e.setSalary(rs.getString(5));

e.setAddress(rs.getString(6));

e.setCountry(rs.getString(7));

}

con.close();

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

**return** e;

}

**public** **static** List<Emp> getAllEmployees(){

List<Emp> list=**new** ArrayList<Emp>();

**try**{

Connection con=EmpDao.*getConnection*();

PreparedStatement ps=con.prepareStatement("select \* from user906");

ResultSet rs=ps.executeQuery();

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

Emp e=**new** Emp();

e.setId(rs.getInt(1));

e.setName(rs.getString(2));

e.setPassword(rs.getString(3));

e.setEmail(rs.getString(4));

e.setSalary(rs.getString(5));

e.setAddress(rs.getString(6));

e.setCountry(rs.getString(7));

list.add(e);

}

con.close();

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

**return** list;

}

}

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**SaveServlet.java**

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;

@WebServlet("/SaveServlet")

public class SaveServlet extends HttpServlet {

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

response.setContentType("text/html");

PrintWriter out=response.getWriter();

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

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

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

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

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

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

Emp e=new Emp();

e.setName(name);

e.setPassword(password);

e.setEmail(email);

e.setSalary(salary);

e.setAddress(address);

e.setCountry(country);

int status=EmpDao.save(e);

if(status>0){

out.print("<p>Record saved successfully!</p>");

request.getRequestDispatcher("index.html").include(request, response);//carry request & response to next page to next index.html

}else{

out.println("Sorry! unable to save record");

}

out.close();

}

}

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**EditServlet.java**

**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;

@WebServlet("/EditServlet")

**public** **class** EditServlet **extends** HttpServlet {

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

response.setContentType("text/html");

PrintWriter out=response.getWriter();

out.println("<h1>Update Employee</h1>");

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

**int** id=Integer.*parseInt*(sid);

Emp e=EmpDao.*getEmployeeById*(id);

out.print("<form action='EditServlet2' method='post'>");

out.print("<table>");

out.print("<tr><td></td><td><input type='hidden' name='id' value='"+e.getId()+"'/></td></tr>");

out.print("<tr><td>Name:</td><td><input type='text' name='name' value='"+e.getName()+"'/></td></tr>");

out.print("<tr><td>Password:</td><td><input type='password' name='password' value='"+e.getPassword()+"'/></td></tr>");

out.print("<tr><td>Email:</td><td><input type='email' name='email' value='"+e.getEmail()+"'/></td></tr>");

out.print("<tr><td>Salary:</td><td><input type='text' name='salary' value='"+e.getSalary()+"'/></td></tr>");

out.print("<tr><td>Address:</td><td><input type='text' name='address' value='"+e.getAddress()+"'/></td></tr>");

out.print("<tr><td>Country:</td><td>");

out.print("<select name='country' style='width:150px'>");

out.print("<option>India</option>");

out.print("<option>USA</option>");

out.print("<option>UK</option>");

out.print("<option>Other</option>");

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

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

out.print("<tr><td colspan='2'><input type='submit' value='Edit &amp; Save '/></td></tr>");

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

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

out.close();

}

}

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**EditServlet2.java**

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;

@WebServlet("/EditServlet2")

public class EditServlet2 extends HttpServlet {

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

response.setContentType("text/html");

PrintWriter out=response.getWriter();

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

int id=Integer.parseInt(sid);

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

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

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

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

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

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

Emp e=new Emp();

e.setId(id);

e.setName(name);

e.setPassword(password);

e.setEmail(email);

e.setSalary(salary);

e.setAddress(address);

e.setCountry(country);

int status=EmpDao.update(e);

if(status>0){

response.sendRedirect("ViewServlet");

}else{

out.println("Sorry! unable to update record");

}

out.close();

}

}

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**DeleteServlet.java**

import java.io.IOException;

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("/DeleteServlet")

public class DeleteServlet extends HttpServlet {

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

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

int id=Integer.parseInt(sid);

EmpDao.delete(id);

response.sendRedirect("ViewServlet");

}

}

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**ViewServlet.java**

**import** java.io.IOException;

**import** java.io.PrintWriter;

**import** java.util.List;

**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("/ViewServlet")

**public** **class** ViewServlet **extends** HttpServlet {

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

response.setContentType("text/html");

PrintWriter out=response.getWriter();

out.println("<a href='index.html'>Add New Employee</a>");

out.println("<h1>Employees List</h1>");

List<Emp> list=EmpDao.*getAllEmployees*();

out.print("<table border='1' width='100%'");

out.print("<tr><th>Id</th><th>Name</th><th>Password</th><th>Email</th><th>Salary</th><th>Address</th><th>Country</th><th>Edit</th><th>Delete</th></tr>");

**for**(Emp e:list){

out.print("<tr><td>"+e.getId()+"</td><td>"+e.getName()+"</td><td>"+e.getPassword()+"</td><td>"+e.getEmail()+"</td><td>"+e.getSalary()+"</td><td>"+e.getAddress()+"</td><td>"+e.getCountry()+"</td><td><a href='EditServlet?id="+e.getId()+"'>edit</a></td><td><a href='DeleteServlet?id="+e.getId()+"'>delete</a></td></tr>");

}

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

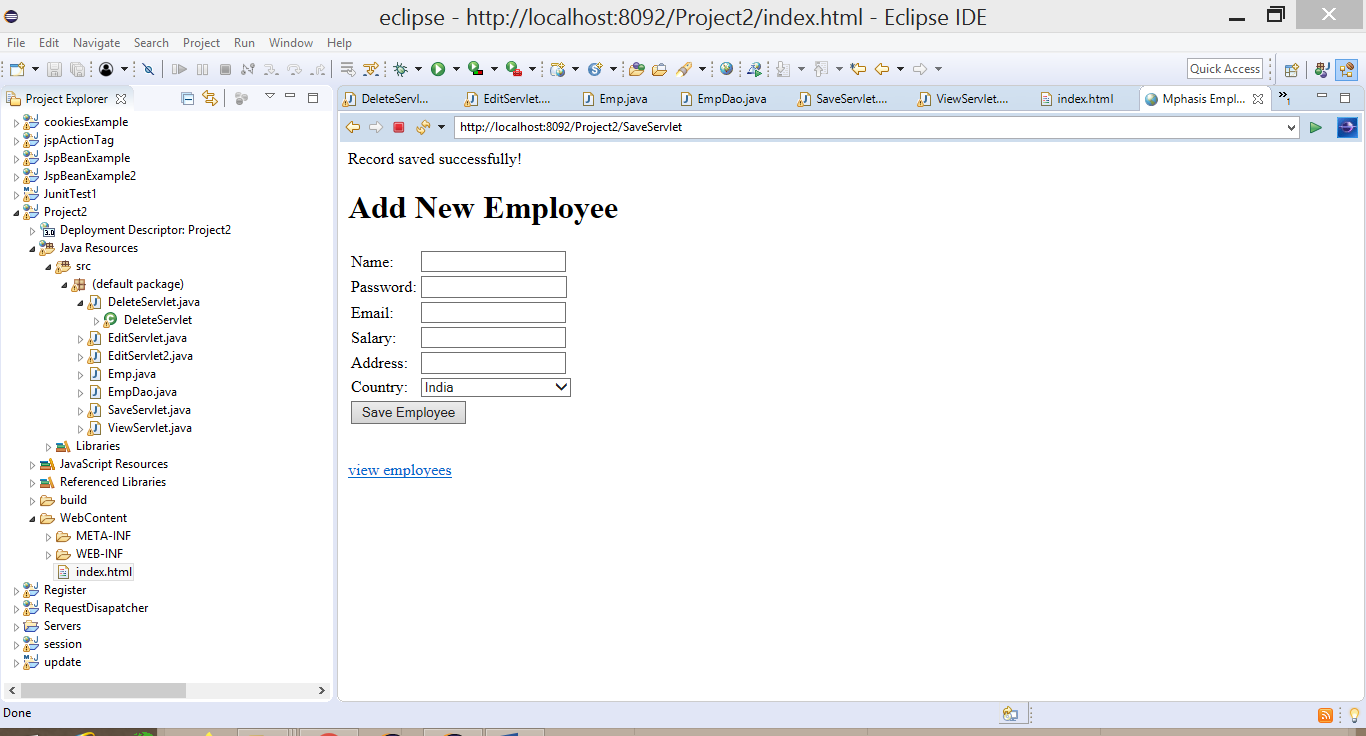
out.close();

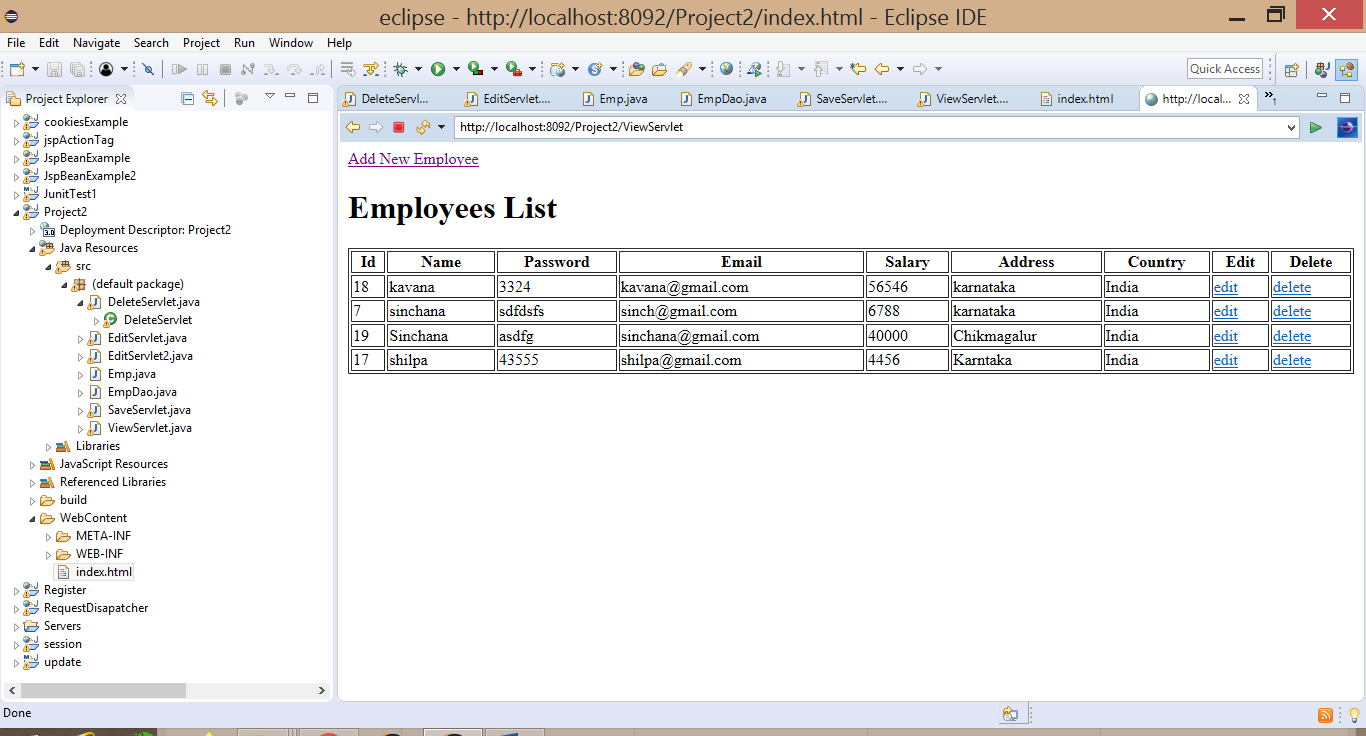
}

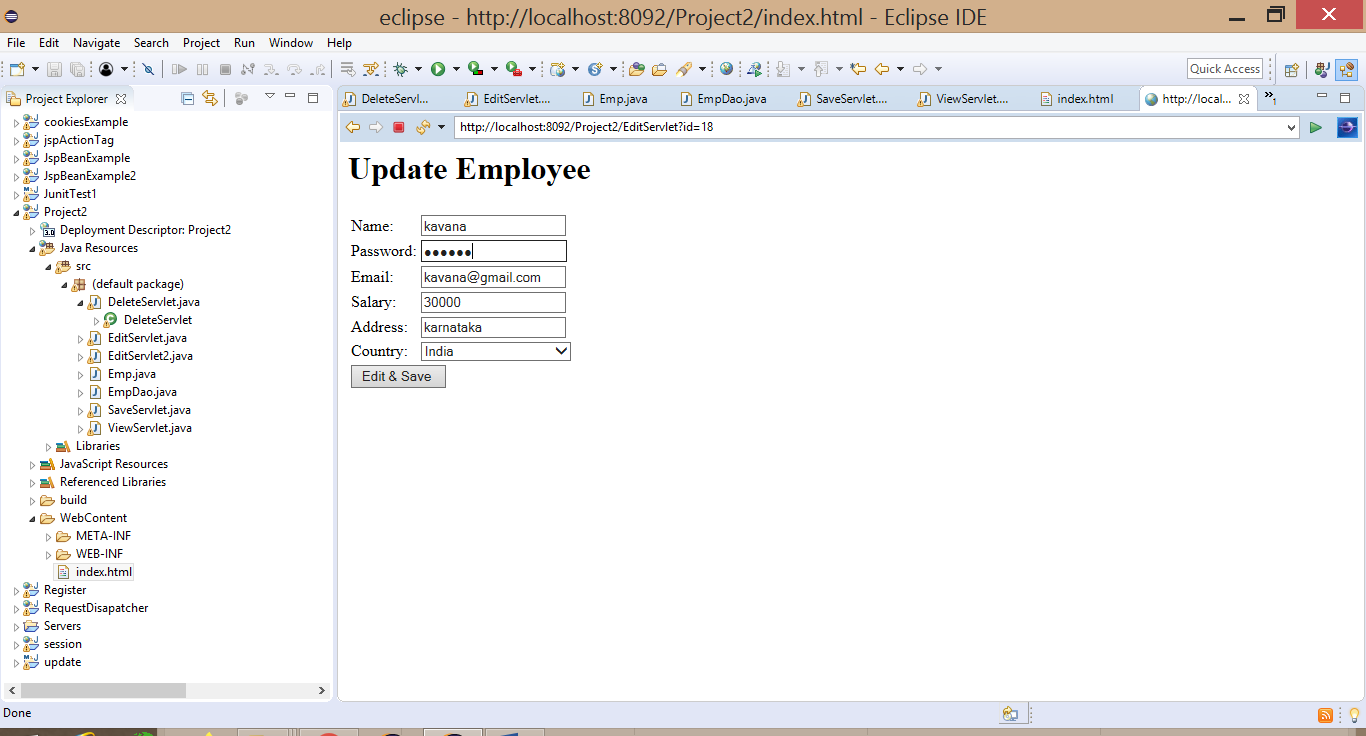
}

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**Output:**

****

****

****

**Empno: 2427511**

**Name:Sinchana CP**