**1.Server client communication using socket**

package myclient;

import java.io.\*;  
import java.net.\*;  
public class MyClient {  
public static void main(String[] args) {  
 try{  
try (Socket s = new Socket("localhost",6666);  
DataOutputStream dout = new DataOutputStream(s.getOutputStream())) {  
dout.writeUTF("Hello Server");  
dout.flush();  
 }}catch(IOException e){System.out.println(e);}  
  
}  
}

package myserver;  
import java.io.\*;  
import java.net.\*;  
public class MyServer {  
public static void main(String[] args) {  
 try{  
  
 try (ServerSocket ss = new ServerSocket(6666)) {  
 Socket s=ss.accept();//establishes connection  
   
 DataInputStream dis=new DataInputStream(s.getInputStream());  
   
 String str=(String)dis.readUTF();  
   
 System.out.println("message= "+str);  
 } //establishes connection  
  
}catch(IOException e){System.out.println(e);}  
  
}  
 }

**2.Simple calculator**

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("/calculator")

public class Calculator extends HttpServlet {

@Override

protected void doPost(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {

int num1 = Integer.parseInt(req.getParameter("num1"));

int num2 = Integer.parseInt(req.getParameter("num2"));

String operation = req.getParameter("operation");

int result = 0;

switch (operation) {

case "add":

result = num1 + num2;

break;

case "subtract":

result = num1 - num2;

break;

case "multiply":

result = num1 \* num2;

break;

case "divide":

result = num1 / num2;

break;

}

resp.getWriter().println("Result: " + result);

}

}

```

\*index.html\*

```

<!DOCTYPE html>

<html>

<head>

<title>Calculator</title>

</head>

<body>

<form action="calculator" method="post">

<input type="number" name="num1" placeholder="Number 1">

<input type="number" name="num2" placeholder="Number 2">

<select name="operation">

<option value="add">Add</option>

<option value="subtract">Subtract</option>

<option value="multiply">Multiply</option>

<option value="divide">Divide</option>

</select>

<input type="submit" value="Calculate">

</form>

</body>

</html>

**3.Login validation using servlet**

index.html

<html>  
 <head>  
 <title>LOGIN PAGE</title>  
 <meta charset="UTF-8">  
 <meta name="viewport" content="width=device-width, initial-scale=1.0">  
 </head>  
 <body>  
 <form action="Login" method="post">  
 Enter Username:  
 <input name="uname" type="text"/>  
 Enter Password:  
 <input name="pass" type="password"/>  
 <input type="submit" value="Login"/>  
 <input type="reset" value="reset"/>  
 </form>  
 </body>  
</html>

Login.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(urlPatterns = {"/Login"})  
public class Login extends HttpServlet {  
  
   
 @Override  
 protected void doPost(HttpServletRequest request, HttpServletResponse response)  
 throws ServletException, IOException {  
 response.setContentType("text/html;charset=UTF-8");  
 try (PrintWriter out = response.getWriter()) {  
 String uname = request.getParameter("uname");  
 String pass = request.getParameter("pass");  
   
 if(uname.equals("nan")&& pass.equals("Nan@123"))  
 {  
 out.println("Hello <b>" +(uname) + "</b> Welcome to Java Servlet");  
 }  
 else  
 {  
 out.println("Login Failed");  
 }  
 }  
 }  
}

**4.Validation using request dispatcher**

index.html

<html>  
 <head>  
 <title>supply a title</title>  
 <meta charset="UTF-8">  
 <meta name="viewport" content="width=device-width, initial-scale=1.0">  
 </head>  
 <body>  
 <form action="Servlet1" method="post">   
Name:<input type="text" name="userName"/><br/>   
Password:<input type="password" name="userPass"/><br/>   
<input type="submit" value="login"/>   
</form>  
  
 </body>  
</html>

Servlet1.java

import java.io.\*;   
import javax.servlet.\*;   
import javax.servlet.annotation.WebServlet;  
import javax.servlet.http.\*;   
  
@WebServlet(urlPatterns = {"/Servlet1"})  
public class Servlet1 extends HttpServlet {  
  
   
 @Override  
 protected void doPost(HttpServletRequest request, HttpServletResponse response)  
 throws ServletException, IOException {  
 response.setContentType("text/html;charset=UTF-8");  
 try (PrintWriter out = response.getWriter()) {  
 String name = request.getParameter("userName");  
 String pwd=request.getParameter("userPass");   
   
 if(pwd.equals("servlet")){   
 RequestDispatcher rd=request.getRequestDispatcher("Welcomeservlet");   
 rd.forward(request, response);   
 }   
 else{   
 out.print("Sorry UserName or Password Error!");   
 RequestDispatcher rd=request.getRequestDispatcher("/index.html");   
 rd.include(request, response);   
   
 }   
  
 }  
 }  
}

Welcomeservlet.java

import java.io.\*;   
import javax.servlet.\*;   
import javax.servlet.annotation.WebServlet;  
import javax.servlet.http.\*;   
@WebServlet(urlPatterns = {"/Welcomeservlet"})  
public class Welcomeservlet extends HttpServlet {  
  
  
 @Override  
 protected void doPost(HttpServletRequest request, HttpServletResponse response)  
 throws ServletException, IOException {  
 response.setContentType("text/html;charset=UTF-8");  
 try (PrintWriter out = response.getWriter()) {  
 String name=request.getParameter("userName");   
 out.print("Welcome "+name);   
 }  
 }  
}

**5.Session tracking using servlet**

index.html

<html>  
<head>  
<title>Welcome Page</title>  
<meta charset="UTF-8">  
<meta name="viewport" content="width=device-width, initial-scale=1.0">  
</head>  
<body>  
<form action="Session" method="get">  
<h1>Welcome to Home Page</h1>  
Enter your username:<input type="text" name="username">  
<input type="submit" value="Submit">  
</form>  
</body>  
</html>

Session.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;  
import javax.servlet.http.HttpSession;  
  
@WebServlet(urlPatterns = {"/Session"})  
  
public class Session extends HttpServlet {  
  
   
 @Override  
 protected void doGet(HttpServletRequest request, HttpServletResponse response)  
 throws ServletException, IOException {  
   
 response.setContentType("text/html");  
 try (PrintWriter out = response.getWriter()) {  
 HttpSession session = request.getSession();  
   
 // Check if this is a new session or an existing session  
 if (session.isNew()) {  
 // If the session is new, it means the user is visiting for the first time  
 out.println("<h2>Welcome, first-time visitor!</h2>");  
 session.setAttribute("visitCount", 1); // Initialize visit count  
 } else {  
 // If the session is not new, the user has visited before  
 Integer visitCount = (Integer) session.getAttribute("visitCount");  
 visitCount++;  
 session.setAttribute("visitCount", visitCount);  
 out.println("<h2>Welcome back! You have visited " + visitCount + " times.</h2>");  
 }  
 // Add a link to destroy the session  
 out.println("<br><a href='Session?destroy=true'>Destroy Session</a>");  
 // Destroy session if user clicks the link  
 String destroy = request.getParameter("destroy");  
 if (destroy != null && destroy.equals("true")) {  
 session.invalidate();  
 out.println("<h3>Your session has been destroyed.</h3>");  
 }  
 }  
 }  
}

**6.Invalid Bank transaction**

BankAccount.java

package bankapp;  
public class BankAccount {  
 private final String accountNumber;  
 private double balance;  
 public BankAccount(String accountNumber, double balance) {  
 this.accountNumber = accountNumber;  
 this.balance = balance;  
 }  
  
   
 public String getAccountNumber() {  
 return accountNumber;  
 }  
public double getBalance() {  
 return balance;  
 }  
public void withdraw(double amount) {  
 this.balance -= amount;  
 }  
}

BankConfig.java

package bankapp;  
import org.springframework.context.annotation.Bean;  
import org.springframework.context.annotation.Configuration;  
import bankapp.service.BankService;  
@Configuration  
public class BankConfig {  
 @Bean  
 public BankService bankService() {  
 return new BankService();  
 }

}

SpringBankApp.java

package bankapp;  
import bankapp.service.BankService;  
import org.springframework.context.annotation.AnnotationConfigApplicationContext;  
public class SpringBankApp {  
 public static void main(String[] args) {  
 try (AnnotationConfigApplicationContext context = new  
 AnnotationConfigApplicationContext(BankConfig.class)) {  
 BankService bankService = context.getBean(BankService.class);  
 try {  
 bankService.validateAccount("12345");  
 bankService.withdraw("12345", 200);  
 System.out.println("Balance after withdrawal: " + bankService.getBalance("12345"));  
 } catch (Exception e) {  
 System.out.println(e.getMessage());  
 }  
 } }

}

InsufficientBalanceException.java

package bankapp.exceptions;  
 public class InsufficientBalanceException extends RuntimeException {  
 public InsufficientBalanceException(String message) {  
 super(message);  
 }

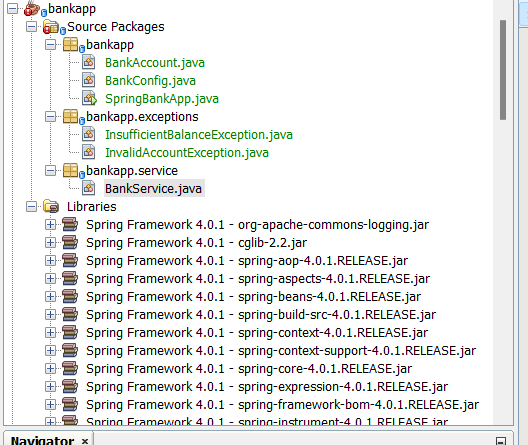
}

InvalidAccountException.java

package bankapp.exceptions;  
 public class InvalidAccountException extends RuntimeException {  
 public InvalidAccountException(String message) {  
 super(message);  
 }

BankService.java

package bankapp.service;  
import bankapp.BankAccount;  
import bankapp.exceptions.InsufficientBalanceException;  
import bankapp.exceptions.InvalidAccountException;  
import org.springframework.stereotype.Service;  
import java.util.HashMap;  
import java.util.Map;  
@Service  
public class BankService {  
 private final Map<String, BankAccount> accounts = new HashMap<>();  
public BankService() {  
 BankAccount BankAccount = accounts.put("12345", new BankAccount("12345", 1000.00)); /\*put\*/  
 accounts.put("67890", new BankAccount("67890", 500.00));  
 }  
 public void validateAccount(String accountNumber) {  
   
 if (!accounts.containsKey(accountNumber)) {  
 throw new InvalidAccountException("Invalid account number: " + accountNumber);  
 }  
 }  
 public void withdraw(String accountNumber, double amount) {  
 BankAccount account = accounts.get(accountNumber);  
 if (account.getBalance() < amount) {  
 throw new InsufficientBalanceException("Insufficient balance to withdraw " + amount);  
 }  
 account.withdraw(amount);  
 }  
public double getBalance(String accountNumber) {  
 return accounts.get(accountNumber).getBalance();  
 }  
}  
}



**8.Employee details using hibernate**

mangu.java

package mangu;  
  
import entity.Mangu;  
import org.hibernate.Session;  
import org.hibernate.Transaction;  
  
  
public class mangu {  
 static Session session=null;  
 public static void insert(Mangu e){  
 session=HibernateUtil.getSessionFactory().openSession();  
 Transaction tx=session.beginTransaction();  
 session.save(e);  
 tx.commit();  
 session.flush();  
 session.close();  
}  
 public static void main(String[] args) {  
 Mangu e=new Mangu (1,"siva","cbe","female",50000);  
 insert(e);  
 }  
}



**7.Date injection**

**MainApp.java**

package mainapp;

import org.springframework.context.ApplicationContext;

import org.springframework.context.annotation.AnnotationConfigApplicationContext;

/\*\*

\*

\* @author SIVASANKARI G

\*/

public class MainApp {

public static void main(String[] args) {

ApplicationContext context = new AnnotationConfigApplicationContext(AppConfig.class);

MyBean myBean = context.getBean(MyBean.class);

System.out.println(myBean);

}

}

**MyBean.java**

package mainapp;

import java.util.Date;

public class MyBean {

private Date currentDate;

// Getter and Setter

public Date getCurrentDate() {

return currentDate;

}

public void setCurrentDate(Date currentDate) {

this.currentDate = currentDate;

}

@Override

public String toString() {

return "MyBean{" +"currentDate=" + currentDate +'}';

}

}

**AppConfig.java**

package mainapp;

import org.springframework.context.annotation.Bean;

import org.springframework.context.annotation.Configuration;

import java.util.Date;

@Configuration

public class AppConfig {

@Bean

public Date currentDate() {

return new Date(); // This returns the current date and time

}

@Bean

public MyBean myBean(Date currentDate) {

MyBean myBean = new MyBean();

myBean.setCurrentDate(currentDate);

return myBean;

}

}

**9.JSP application with intrinsic objects**

index.html

<html>

<head>

<title> supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<form action="example.jsp" method="get">

<label for="username">Enter your username:</label>

<input type="text" id="username" name="username">

<input type="submit" value="Submit">

</form>

</body>

</html>

example.jsp

<%@page contentType="text/html" pageEncoding="UTF-8"%>

<%

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

if (username == null || username.isEmpty()) {

username = "Guest";

}

%>

<%-- Session Object: Setting a session attribute --%>

<%

session.setAttribute("username", username);

%>

<%-- Application Object: Accessing application context --%>

<%

String appName = application.getInitParameter("applicationName");

%>

<%-- Out Object: Writing output to the client --%>

<%

out.println("<h1>Welcome, " + username + "!</h1>");

out.println("<p>Application Name: " + appName + "</p>");

%>

<%-- Config Object: Accessing servlet configuration --%>

<%

ServletConfig Config = getServletConfig();

String servletName = config.getServletName();

%>

<p>Servlet Name: <%= servletName %></p>

<%-- PageContext Object: Setting and getting page attributes --%>

<%

pageContext.setAttribute("greeting", "Hello from PageContext!");

String greeting = (String) pageContext.getAttribute("greeting");

%>

<p><%= greeting %></p>

<%-- Page Object: Referring to the current instance of the JSP --%>

<%

out.println("<p>This page is handled by instance: " + page.toString() + "</p>");

%>

error.jsp

<%@ page isErrorPage="true" language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Error Page</title>

</head>

<body>

<%-- Exception Object: Handling exceptions --%>

<h1>An error occurred:</h1>

<p><%= exception.getMessage() %></p>

</body>

</html>

**10.Passing values with validation in JSP**

Index.html

<html>

<head>

<title>Simple JSP Form</title>

</head>

<body>

<h2>Enter your details</h2>

<form action="submit.jsp" method="post">

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

Age: <input type="text" name="age" required /><br/><br/>

Hobbies: <br/>

<input type="checkbox" name="hobbies" value="Reading" /> Reading<br/>

<input type="checkbox" name="hobbies" value="Traveling" /> Traveling<br/>

<input type="checkbox" name="hobbies" value="Gaming" /> Gaming<br/><br/>

Email: <input type="email" name="email" required /><br/><br/>

Gender: <br/>

<input type="radio" name="gender" value="Male" required /> Male<br/>

<input type="radio" name="gender" value="Female" required /> Female<br/><br/>

<input type="submit" value="Submit" />

</form>

</body>

</html>

Submit.jsp

<%@page contentType="text/html" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<title>Submitted Details</title>

</head>

<body>

<h2>Submitted Details</h2>

<%

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

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

String[] hobbies = request.getParameterValues("hobbies");

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

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

boolean valid = true;

StringBuilder validationMessages = new StringBuilder();

if (name == null || name.isEmpty()) {

valid = false;

validationMessages.append("Name is required.<br/>");

}

if (age == null || age.isEmpty()) {

valid = false;

validationMessages.append("Age is required.<br/>");

} else {

try {

int ageInt = Integer.parseInt(age);

if (ageInt <= 0) {

valid = false;

validationMessages.append("Age must be a positive number.<br/>");

}

} catch (NumberFormatException e) {

valid = false;

validationMessages.append("Age must be a number.<br/>");

}

}

if (email == null || email.isEmpty()) {

valid = false;

validationMessages.append("Email is required.<br/>");

}

if (gender == null || gender.isEmpty()) {

valid = false;

validationMessages.append("Gender is required.<br/>");

}

if (valid) {

%>

<p>Name: <%= name %></p>

<p>Age: <%= age %></p>

<p>Hobbies:

<%

if (hobbies != null) {

for (String hobby : hobbies) {

out.print(hobby + " ");

}

} else {

out.print("None");

}

%>

</p>

<p>Email: <%= email %></p>

<p>Gender: <%= gender %></p>

<%

} else {

%>

<h3>Validation Errors</h3>

<p><%= validationMessages.toString() %></p>

<a href="index.jsp">Go back to the form</a>

<%

}

%>

</body>

</html>

**11.Expression language using JSP**

index.html

<html>  
 <head>  
 <title>Expression Language</title>  
 <meta charset="UTF-8">  
 <meta name="viewport" content="width=device-width, initial-scale=1.0">  
 </head>  
 <body>  
 <form action="New.jsp" method="post">  
UserName:<input type="text" name="uname"/><br/>   
Age:<input type="text" name="age"/><br/>   
salary:<input type="text" name="salary"/><br/>  
<input type="submit" value="submit"/>   
</form>  
 </body>  
</html>

New.jsp

<%@ page contentType="text/html" pageEncoding="UTF-8" %>  
<!DOCTYPE html>  
<html lang="en">  
<head>  
 <meta charset="UTF-8">  
 <meta name="viewport" content="width=device-width, initial-scale=1.0">  
 <title>Processed Data</title>  
</head>  
<body>  
 <h1>Processed User Information</h1>  
  
 <!-- Retrieve and display parameters from the request -->  
 <%  
 String username = request.getParameter("uname");  
 String ageParam = request.getParameter("age");  
 String salaryParam = request.getParameter("salary");  
   
 int age = 0;  
 double salary = 0.0;  
  
 // Convert parameters to appropriate types  
 try {  
 age = Integer.parseInt(ageParam);  
 } catch (NumberFormatException e) {  
 // Handle invalid number format for age  
 }  
  
 try {  
 salary = Double.parseDouble(salaryParam);  
 } catch (NumberFormatException e) {  
 // Handle invalid number format for salary  
 }  
 %>  
  
 <!-- Display values -->  
 <p>Username: <%= username %></p>  
 <p>Age: <%= age %></p>  
 <p>Salary: <%= salary %></p>  
  
 <!-- Performing arithmetic operations -->  
 <h2>Arithmetic Operations:</h2>  
 <p>Age in 5 years: <%= age + 5 %></p>  
 <p>Half of Salary: <%= salary / 2 %></p>  
 <p>Salary with 10% bonus: <%= salary \* 1.10 %></p>  
  
 <!-- Conditional logic -->  
 <h2>Conditional Logic:</h2>  
 <p>Is user an adult? <%= age >= 18 ? "Yes" : "No" %></p>  
 <p>Salary status: <%= salary > 40000 ? "High" : "Low" %></p>  
  
 <!-- String concatenation -->  
 <h2>String Concatenation:</h2>  
 <p>Greeting: <%= "Hello, " + username + "!" %></p>  
  
</body>  
</html>

**12.Login for validation using Javabeans**

index.html

<!DOCTYPE html>  
<html>  
<head>  
 <meta charset="UTF-8">  
 <title>Welcome to Login Validation Demo</title>  
</head>  
<body>  
 <h1>Welcome to the Login Validation Demo</h1>  
   
 <p>Click the link below to access the login form:</p>  
   
 <!-- Link to the login.jsp page -->  
 <a href="Login.jsp">Go to Login Form</a>  
</html>

Login.jsp

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>  
<%@ page import="example.UserBean" %>  
<html>  
<head>  
 <title>Login Form</title>  
</head>  
<body>  
 <h2>Login</h2>  
 <form action="validate.jsp" method="post">  
 Username: <input type="text" name="username" /><br />  
 Password: <input type="password" name="password" /><br />  
 <input type="submit" value="Login" />  
 </form>  
</body>  
</html>

validate.jsp

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>  
<%@ page import="example.UserBean" %>  
<jsp:useBean id="user" class="example.UserBean" scope="request">  
 <jsp:setProperty name="user" property="username" param="username" />  
 <jsp:setProperty name="user" property="password" param="password" />  
</jsp:useBean>  
<html>  
<head>  
 <title>Login Result</title>  
</head>  
<body>  
 <%  
 if (user.validate()) {  
 out.println("<h2>Login Successful</h2>");  
 out.println("Welcome, " + user.getUsername() + "!");  
 } else {  
 out.println("<h2>Login Failed</h2>");  
 out.println("Invalid username or password. Please try again.");  
 }  
 %>  
</body>  
</html>

UserBean.java

/\*  
 \* To change this license header, choose License Headers in Project Properties.  
 \* To change this template file, choose Tools | Templates  
 \* and open the template in the editor.  
 \*/  
package example;  
  
/\*\*  
 \*  
 \* @author HP  
 \*/  
public class UserBean {  
 private String username;  
 private String password;  
  
  
 public String getUsername() {  
 return username;  
 }  
  
 public void setUsername(String username) {  
 this.username = username;  
 }  
  
 public String getPassword() {  
 return password;  
 }  
  
 public void setPassword(String password) {  
 this.password = password;  
 }  
 public boolean validate() {  
 // Here, we assume a static username and password for demonstration purposes  
 return "admin".equals(username) && "password123".equals(password);  
 }  
  
   
  
   
}

**13.File uploading using JSP**

<!DOCTYPE html>  
<html>  
<head>  
<title>supply a title</title>  
<meta charset="UTF-8">  
<meta name="viewport" content="width=device-width, initial-scale=1.0">  
</head>  
<body>  
<div> write content</div>  
<form action="upload.jsp" method="post" enctype="multipart/form-data">  
Select File:<input type="file" name="fname"/><br/>  
<input type="submit" value="submit"/>  
</form> </body>  
</html>

upload.jsp

<%@page contentType="text/html" pageEncoding="UTF-8"%>  
<%@ page import="com.oreilly.servlet.MultipartRequest" %>  
<!DOCTYPE html>  
<html>  
  
<head>  
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">  
<title> Page</title>  
</head>  
<body>  
  
<% MultipartRequest m = new MultipartRequest(request, "d:/");  
out.print("successfully uploaded"); %>  
</body>  
</html>

**14.Electricity bill generation**

index.html

<!DOCTYPE html>  
<html>  
<head>  
<title></title>  
</head>  
<body>  
<form action="eb.jsp">  
<h2><div style="text-align:center">TAMILNADU ELECTRICITY BOARD</div></h2>  
<table BORDER="1" >  
<CAPTION><EM> ELECTRICITY BILL</EM></CAPTION>  
<tr rowspan="2">  
<th> Consumer Name:</th>  
<td><input type="text" name="conname"></td>  
</tr>  
<tr>  
<th> Connection no:</th>  
<td><input type="text" name="conno"></td>  
</tr>  
<tr>  
<th> Date:</th>  
<td><input type="text" name="condate"></td>  
</tr>  
<tr>  
<th> Zone Name:</th>  
<td><input type="text" name="conzn"></td>  
</tr>  
<tr>  
<th>Previous meter reading :</th>  
<td><input type="text" name="conpmr"></td>  
</tr>  
<tr>  
<th> Current meter reading:</th>  
<td><input type="text" name="concmr"></td>  
</tr>  
</table>  
</br></br></br>  
<input type="submit" value="Submit" />  
</form>  
</body>  
</html>

Eb.jsp

<html>  
<head>  
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">  
<title>JSP Page</title>  
</head>  
<body>  
<%  
try{  
String cname=request.getParameter("conname");  
String cno=request.getParameter("conno");  
String cndate=request.getParameter("condate");  
String cnzn=request.getParameter("conzn");  
String cnpmr=request.getParameter("conpmr");  
String cncmr=request.getParameter("concmr");  
int cnpmr1=Integer.parseInt(cnpmr);  
int cncmr1=Integer.parseInt(cncmr);  
int units=cncmr1-cnpmr1;  
int runits=units-100;  
double tamt=0.0;  
if (runits > 100){  
if (runits >= 200){  
tamt=tamt+(100.0\*2.00);  
}else{  
tamt=tamt+(runits\*2.00);  
}}  
if (runits > 201){  
if (runits > 400){  
tamt=tamt+(200.0\*4.00);  
}else{  
runits=runits-100;  
tamt=tamt+(runits\*4.00);  
}  
}  
if (runits > 400){  
if(runits > 600){  
tamt=tamt+(runits\*6.00);  
} else{  
runits=runits-400;  
tamt=tamt+(runits\*6.00);  
}  
}  
%>  
<form target="\_blank">  
<h2><div style="text-align:center">TAMILNADUELECTRICITY BOARD</div></h2>  
<table BORDER="1" >  
<CAPTION><EM> ELECTRICITY BILL</EM></CAPTION>  
<tr rowspan="2">  
<th> Consumer Name:</th>  
<td><input type="text" name="conname" value=<%=cname%>></td>  
</tr>  
<tr>  
<th> Connection no:</th>  
<td><input type="text" name="conno" value=<%=cno%>></td>  
</tr>  
<tr>  
<th> Date:</th>  
<td><input type="text" name="condate" value=<%=cndate%>></td>  
</tr>  
<tr>  
<th> Zone Name:</th>  
<td><input type="text" name="conzn" value=<%=cnzn%>></td>  
</tr>  
<tr>  
<th>Previous meter reading :</th>  
<td><input type="text" name="conpmr"value=<%=cnpmr%>></td>  
</tr>  
<tr>  
    <th> Current meter reading:</th>  
<td><input type="text" name="concmr" value=<%=cncmr%>></td>  
</tr>  
<tr>  
<th> Units consumed:</th>  
<td><input type="text" name="conunits" value=<%=units%>></td>  
</tr>  
<tr>  
<th> Amount to be paid:</th>  
<td><input type="text" name="conamt" value=<%=tamt%>></td>  
</tr>  
</table>  
</form>  
<%  
}  
catch(NumberFormatException exp){  
out.println("There is something wrong:"+exp);  
}  
%>  
</body>  
</html>

**15.Resume builder**

index.html

<html>  
<head>  
<title> supply a title</title>  
<meta charset="UTF-8">  
<meta name="viewport" content="width=device-width, initial-scale=1.0">  
</head>  
<body>  
<form action="Resume">  
<h1>RESUME</h1>  
<hr>  
Name:<br><input type="text" name="nme"/><br>  
Email Id:<br><input type="email" name="mail"/><br>  
Date of Birth:<br><input type="date" name="dte"/><br>  
Gender:<br><input type="radio" name="gender" value="male" />Male<br>  
<br><input type="radio" name="Gender" value="female" />Female<br>  
Age:<br><input type="text" name="age"/><br>  
Qualification:<br><input type="text" name="qualify"/><br>  
Address:<br>  
<textarea rows="5" cols="10" name="address">  
</textarea>  
<br>  
Hobbies:<br>  
<input type="text" name="hobby"/><br>  
<input type="submit" name="submit"/><br>  
</form>  
</body>  
</html>

Resume.servlet

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(urlPatterns = {"/Resume"})  
public class Resume extends HttpServlet {  
  
   
 protected void processRequest(HttpServletRequest request, HttpServletResponse response)  
 throws ServletException, IOException {  
 response.setContentType("text/html;charset=UTF-8");  
 try (PrintWriter out = response.getWriter()) {  
 String Name=request.getParameter("nme");  
String Email=request.getParameter("mail");  
String Date=request.getParameter("dte");  
String Gender=request.getParameter("gender");  
String Age=request.getParameter("age");  
String Qual=request.getParameter("qualify");  
String Address=request.getParameter("address");  
String Hobbies=request.getParameter("hobby");  
out.println("Hi "+Name+"Welcome to Servlet page"+"<br>");  
out.println("Name:"+Name+"<br>");  
out.println("Email-Id:"+Email+"<br>");  
out.println("Date of Birth:"+Date+"<br>");  
out.println("Gender"+Gender+"<br>");  
out.println("Age:"+Age+"<br>");  
out.println("Qualification:"+Qual+"<br>");  
out.println("Address:"+Address+"<br>"); out.println("Hobbies"+Hobbies+"<br>"); }  
}  
@Override  
protected void doGet(HttpServletRequest request, HttpServletResponse response)  
throws ServletException, IOException {  
processRequest(request, response);  
}  
@Override  
protected void doPost(HttpServletRequest request, HttpServletResponse response)  
throws ServletException, IOException {  
processRequest(request, response);  
}  
  
 @Override  
public String getServletInfo() {  
return "Short description";  
} }