|  |  |
| --- | --- |
| 2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36  37  38  39  40  41  42 | package mvcdemo.controllers;    import java.io.IOException;    import javax.servlet.RequestDispatcher;  import javax.servlet.ServletException;  import javax.servlet.http.HttpServlet;  import javax.servlet.http.HttpServletRequest;  import javax.servlet.http.HttpServletResponse;    import mvcdemo.model.Authenticator;  import mvcdemo.model.User;    import sun.text.normalizer.ICUBinary.Authenticate;    public class LoginController extends HttpServlet {  private static final long serialVersionUID = 1L;    public LoginController() {  super();  }    protected void doPost(HttpServletRequest request,  HttpServletResponse response) throws ServletException, IOException {    String username = request.getParameter("username");  String password = request.getParameter("password");  RequestDispatcher rd = null;    Authenticator authenticator = new Authenticator();  String result = authenticator.authenticate(username, password);  if (result.equals("success")) {  rd = request.getRequestDispatcher("/success.jsp");  User user = new User(username, password);  request.setAttribute("user", user);  } else {  rd = request.getRequestDispatcher("/error.jsp");  }  rd.forward(request, response);  }    } |

Authenticator.java



|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13 | package mvcdemo.model;    public class Authenticator {    public String authenticate(String username, String password) {  if (("prasad".equalsIgnoreCase(username))  && ("password".equals(password))) {  return "success";  } else {  return "failure";  }  }  } |

User.java



|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29 | package mvcdemo.model;    public class User {    private String username;  private String password;    public User(String username, String password){  this.username = username;  this.password = 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;  }    } |

error.jsp



|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14 | <%@ page language="java" contentType="text/html; charset=ISO-8859-1"      pageEncoding="ISO-8859-1"%>  *<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">*  <html>  <head>  <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">  <title>Insert title here</title>  </head>  <body>    Login failed, please try again.    </body>  </html> |

login.jsp



|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16 | <%@ page language="java" contentType="text/html; charset=ISO-8859-1"  pageEncoding="ISO-8859-1"%>  *<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">*  <html>  <head>  <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">  <title>Insert title here</title>  </head>  <body>  <form action="LoginController" method="post">  Enter username : <input type="text" name="username"> <BR>  Enter password : <input type="password" name="password"> <BR>  <input type="submit" />  </form>  </body>  </html> |

success.jsp



|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15 | <%@ page language="java" contentType="text/html; charset=ISO-8859-1"      pageEncoding="ISO-8859-1"%>  *<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">*  <html>  <head>  <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">  <%@ taglib uri="http://java.sun.com/jstl/core" prefix="c" %>  <title>Insert title here</title>  </head>  <body>    Welcome ${requestScope['user'].username}.    </body>  </html> |

and the web.xml



|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14 | <?xml version="1.0" encoding="UTF-8"?>  <web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://java.sun.com/xml/ns/javaee" xmlns:web="http://java.sun.com/xml/ns/javaee/web-app\_2\_5.xsd" xsi:schemaLocation="http://java.sun.com/xml/ns/javaee http://java.sun.com/xml/ns/javaee/web-app\_2\_5.xsd" id="WebApp\_ID" version="2.5">    <display-name>MVCDemo</display-name>     <servlet>      <description></description>      <display-name>LoginController</display-name>      <servlet-name>LoginController</servlet-name>      <servlet-class>mvcdemo.controllers.LoginController</servlet-class>    </servlet>    <servlet-mapping>      <servlet-name>LoginController</servlet-name>      <url-pattern>/LoginController</url-pattern>    </servlet-mapping>  </web-app> |

We are done with the code. Let us try and run it.

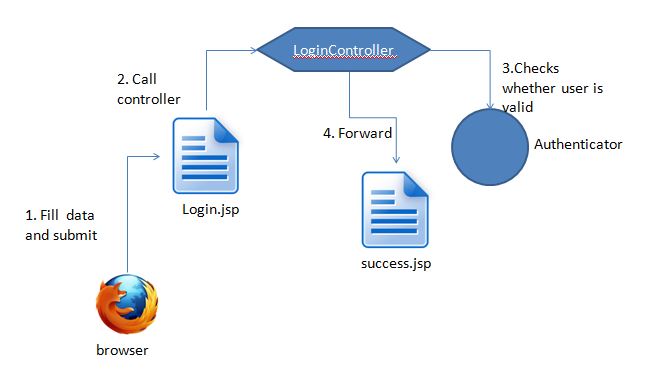
Start your tomcat server and hit url [http://localhost:8080/MVCDemo/login.jsp.](http://localhost:8080/MVCDemo/login.jsp)

You should be able to view this page.

[](http://www.thejavageek.com/wp-content/uploads/2013/08/loginForm.jpg)

Enter username as “prasad” and password as “password”. You will see the message “Welcome prasad”.

Let us understand what happens under the hood with the help of diagram.

[](http://www.thejavageek.com/wp-content/uploads/2013/08/MVCFlow1.jpg)

1. First, user visits login.jsp page and fills out data and submits form.
2. This causes  LoginController  to be invoked because of form action="LoginController" .
3. In LoginController , following code causes the model to be invoked and set the User properties.



|  |  |
| --- | --- |
| 1  2 | Authenticator authenticator = new Authenticator();  String result = authenticator.authenticate(username, password); |

and User user = new User(username, password); .

1. rd.forward(request, response); causes the servlet to forward to jsp page.

success.jsp page displays the username with expression language Welcome ${requestScope['user'].username}.

Notable advantages of mvc pattern are:

* This separate presentation layer from business layer.
* The controller performs action of invoking the model and sending data to view.
* Model is not even aware that it is used by some web application or desktop application. Authenticator class can be used by desktop applications also. Thus separation helps in re-usability.

Hope this helps in understanding how to create MVC application using servlets and jsp.