Backend and Database Development

13 classes

Day 9 : May 14 2024

Java Technologies

Login Application ie SignIn and SignUp using JDBC with Maven project

Login table created

**create table login(emailid varchar(25) primary key, password varchar(25));**

create login bean class which map to table

LoginDao class which contains jdbc method

SignIn and SignUp

Sharing the data between one servlet to another servlet

Using request object.

LoginServlet

request.setAttribute(“key”,value); value can be string type, integer type, float type or object type.

Home servlet

request.getAttribute(“key”); and return type is object we need to do the type casting depending upon the value.

Session Tracking :

Session : Session is a collection of http request and response within a particular period of time is known as session. To maintain that session using some technique is known as session tracking.

By default http is state less protocol. Using http protocol we can’t keep track about the session.

Session tracking technique

1. Cookies : Cookies is small text file created by server when client send first request to server.

This file created by server but stored in client machine. Which contains lot of information like name, path, expiry etc.

1st Req -------------------------🡪

2nd req + session id ---------------🡪

Client Server

1st res + cookies (session Id)

2nd res + cookies (session id )

Limitation of cookies.

1. Client can disable cookies option on client machine browser. If cookies disable server can’t keep track about the client.
2. Cookies not secure.

URL Re-writing technique : So if client can disable cookie option in client machine. Then server side technologies append session Id through URL in the form of encryption.

URL?sessionId= &&&%%%%%%A^^^^\*\*\*\*\*\*$$$$$$$

This technique is good if cookies is disable in client machine

Limitation: this technique only support for get method not for post method.

1. HttpSession : Java provided pre defined api or interface which contains set of methods which help to keep the track account the session.

Syntax to create HttpSession object

HttpSession hs = request.getSession();

Dynamic web project version 3.0 onward on web.xml file (optional).

Servlet and servlet-mapping tag replace by @WebServlet

Limitation of Servlet

1. Servlet is normal java program if we do any changes in servlet program we need to re compile and re deploy that application once again.
2. To display simple message using servlet we need to create normal java class. that class must be implements or extends type of servlet then we need to override life cycle methods then create PrintWriter class object. Then we need to provide details about servlet in web.xml or using @WebServlet annotation.
3. If we want to display any html code using servlet we need to write inside double quote. So IDE doesn’t provide any help to write html or presentation logic.

JSP : Java Server Pages. JSP is tag base interpreter object oriented server side scripting language.

JSP provide lot of pre defined tags which help to create dynamic web page on server side.

JSP tags

1. Scripting tag
   1. Scriptlet tag

<% opening tag

Java coding or the code which we write inside a method ie doGet or doPost

%> closing tag

* 1. Declarative tag :

<%! Opening tag

Variable declaration or object creation or the code which we write outside a method but inside a class.

%>

* 1. Expression tag :

<%= expression %>

<%=10+20 %>

<%=sum %>

1. Implicit object
   1. Out : out is like PrintWriter class object. In Servlet we need to create the object using respose.getWriter() and we can write any name for that object as pw or obj etc. But in JSP the object name must out. This out is not equal to System.out.prinlnt();
   2. request : request is an implicit object of type HttpServletRequest interface. In doGet or doPost we can change the reference from request to req or obj1. But in JSP the object name must be request we can’t change.
   3. response : response is an implicit object of type HttpServletResponse interface. In doGet or doPost we can change the reference from response to res or obj2. But in jsp the object name must be response we can’t change.
2. Action tags
3. Directive tags
4. JSTL tags

Login example using jsp pages.