**Servlets and Jsp Documentation**

**Servlets:**

**Topics learned in Servlets:**

1.what is meant by servlet?

*- used to create a dynamic web application.*

2.Servlet life cycle.

*-Whenever hitting the final url then the servlet container will loads the web.xml and check the value in the <url pattern> tag. Then it will immediately checks the value in the <servlet-name> tag which is under <servlet-mapping> tag.*

*- Now it will check the value in the <servlet-name> tag which is under <servlet> tag. So, the value of <servlet-name> under <servlet-mapping> and <servlet> are matched, then the container will load java class given in <servle-class> tag.*

*- Finally servlet container came to java servlet class, it will execute init() method first(only once), then service() method or doGet() or doPost().*

3. How to configure tomcat server in eclipse.

4. Creating Web Project in Eclipse and creating servlet and web.xml

5. Methods in servlet *– service(), doGet(), doPost().*

6..What is the difference between doGet() and doPost() methods in servlets

***doget()***

*- is used for getting the information from server.*

***dopost()***

*- is used for sending the information to the server.*

7. HttpServlet, HttpServletRequest, HttpServletResponse.

8.RequestDispatcher and sendRedirect. Calling a servlet from another servlet

9.ServletConfig(<init-param>) and ServletContext (<context-param>).

10.Servlet Attributes *– setAttribute(), getAttribute(), removeAttribute().*

11. HttpSession

12. Session Handling

**Cookies**

* **cookie()** -*constructs a cookie.*
* **setMaxAge(int expiry)** - *sets the max. Age of the cookie in seconds*
* **getName() -** *returns the name of the cookie.*
* **getValue() -** *returns the value of the cookie*
* **addCookie(Cookie ck) -** *used to add cookie in response object.*
* **Cookie[] getCookies*()*** *- used to return all the cookies from the browser.*
* **SetMaxAge(0)** - **deletes the cookie**

13. **request.getParameter()**

*-**used to retrieve the input values from HTML page*

**request.getParameterValues()**

*- used to retrieve more than one element*

14**. PrintWriter out = response.getWriter()**

*- returns a PrintWriter object that can send character text to the client*.

15**. response.setContentType("text/html")**

*- sending HTML response to the client.*

16. Servlet Filters.

17. Servlet Annotation configuration – *Running the servlet program by using the annotation @WebServlet(“/path”) ie., with out using web.xml*

**JSP – Java Server Pages**

**Topics learned in JSP:**

1. What is JSP? What is the use of jsp over servlets?

*- JSP technology is used to create web application just like Servlet technology. We can say it is an extension to servlet.*

2. How the compiler converts the jsp into servlets (Translation of JSP into Servlets)

– *Practically can be seen in netbeans IDE.*

3. JSP tags

- scriptlet tag [<% %>] – *ability to insert the java code inside JSP.*

- declaration tag [<%! %>] *- to declare fields and methods.*

- expression tag [<%= %>] *- is written to the output stream of the response.*

- directive tag [<%@ %>] - *used to import, include the files in the jsp.*

4. Implicit Objects in JSP.

*- JSP Request.*

*- JSP Response*

*- JSP Config*

*- JSP PageContext*

*- JSP Application*

*- JSP Session*

*- JSP Page*

*- JSP Exception*

5.JSP Directive tag elements

*- JSP Page*

*- JSP tag lib*

*- JSP include*

6. Exception handling in JSP – *using error page and including the page using directive tags*

7. JDBC in JSP – *connecting to data base*

8. MVC using servlets and JSP

– *Model, view, controller (Service, DAO are used to connect to the database and fetch the data).*

9. JSTL Basics

- Core tags

- SQL tags

- Function tags