***Jsp&servlet technology***

***Servlet :*** *servlet is a java code used to create a web application.*

*🡪servlet give fast response then compared to jsp*

*🡪it is also used for code readability.*

***Jsp:*** *jsp is a technology used create web application in this we have java code and html code.*

*🡪code is better reausability.*

*🡪html code is also wrote in servlet but it is very complexisity*

***Life cycle of jsp:***

*🡪Jsp page is converted to servlet by using of jsp translator.*

*🡪That servlet page Is compiled by compiler and convert it into class file.*

*🡪all the process that happen in servlet are performed on jsp later like initialization,committed response to the browser and destroy.*

***Jsp scriptlet tag:*** *A scriptlet tag is used to execute java source code into jsp*

***Syntax:*** *<% java source %>*

***Jsp expression tag:***

*It is mainly used to print the values of variables and methods.*

***Syntax:*** *<%****=*** *statement%>*

***Jsp declaration tag:***

*🡪It is used to declare fields and methods.*

*🡪The code is written inside jsp declaration tag is placed outside the service() method of auto generated servlet.*

*🡪it does not get memory at each request.*

***Syntax:****<%! Declaration %>*

***Jsp directive tag:*** *If we want import package and use external tag that time we using ”directive tag”*

***Syntax:****<%! Directive %>*

*Jsp directives or messages that tells the webcontainer to how translate jsp page to servlet.*

*We have three types of directive tags.*

1. *@page:There are different type of attributes used in page directive.*

*Import,Extends,Contenttype,Info,Buffer,Language,isELIgnored,isThreadSafe,autoFlush,session,pageEncoding,errorPage,isErrorPage.*

1. *@include:*
2. *taglib*

***Jsp request:***

*🡪Jsp request is an implicit object type of HTTPServletRequest.*

*🡪Created the jsp request for web container.*

*🡪it is used to get request information.parameters,header information,remote address,servername,server port,content type,character encoding.*

*🡪it is also used to set,get remove attributes from jsp request scope.*

***Jsp response:***

*🡪jsp response is an implicit object type of HTTPServletResponse.*

*🡪HTTPServletResponse is created by the web container for each jsp request.*

*🡪it can be used to add or manipulate response such as redirect response to another resources,send error.*

***servlet config&servlet context:***

*🡪this are implicit objects are used to get initialization of objects.*

*🡪servlet-context object is used for all the servlet in the application*

*🡪servlet-config object is used only one servlet.*

***Ex:*** *if we can have 5 servlets then we create 5 servlet-config objects .*

*One servlet-context object.*

***Httpsession&cookie:***

*🡪transfer the data from one servlet to another servlet we using sessions (or) cookies*

*🡪this objects are used to set ,get or remove attribute or to get session information.*

*🡪we should get the data hold on it in the object.*

*🡪Normally we are using to maintain login.*

*🡪the way of session we also use cookies.*

***Ex:*** *HttpSession session=req.getSession();*

*Session.setAttribute(“ k“, k ); //set attribute*

*int k=(int) session.getAttribute(“k”); //get attribute*

***Exception Handling in jsp:***

*🡪Exception is normally an object that is thrown at runtime.*

*🡪Exception handling is the process to handle the errors.*

*Two ways to handle the exception .*

1. *error page*
2. *page directive*

*🡪it is not good practice to write the errors in same page.*

*🡪 so we can create another jsp and we can place that error. Ex:<%=exception %>*

***MVC IN JSP:***

*🡪Stands for model view controller.*

*🡪it is a design pattern that separates the business logic ,presentation logic and data.*

*🡪Controller acts as interface between view and model.controller intercepts the all incoming request.*

*🡪model represent the state of application(Business logic).*

*🡪view represents the presentation(user interface).*

*🡪mvc is easy to maintain large application*