**Day 16:**

**Web Application**

Types of function

Expression style function

Arrow function

Callback function

Pre – defined object : **promise**

**fetch() function**

callback function: passing the function name or function body or function itself to another function as a parameter is known as callback function.

Pre defined object

Array :

In JS we can store more than one value of different types in array. In JS array is known as dynamic memory allocation.

fetch() function : fetch is pre defined JS function which help to call rest api develop using any technologies. Fetch function return type is promise object.

fetch()

HttpClient in Angular

Axios in react js

Fetch and axios return type is promise.

HttpClient return type is Observable.

Promise : Promise is a pre defined in JS which help to handle asynchronous event of data.

Promise can be resolved or rejected or in process(pending).

If promise resolved it call then() function to get the data. If promise rejected it call catch() function to handle the error. Then and catch takes callback function as parameter.

JSON : JavaScript object notation.

**Server side technologies :**

JEE : Java Enterprise Edition

Servlet, JSP and EJB

Servlet , Java Server Pages and Enterprise Java Bean.

Asp.net

Php

Node JS (Server side JavaScript )

Python with Django

Etc

To run server side technologies we need server.

Server mainly divided into 2 types.

1. Web server : Tomcat etc
2. Application server : Web Logic, JBoss etc.

Servlet, JSP and EJB these modules doesn’t contain main method. we need to develop the application, compile, we need to create war or ear file and deploy on server.

Server contains container. Container is a part of server which also known as engine or run time environment. If server type of web server it contains web container. **Web container** is responsible to execute servlet and jsp.

If server is type of application server which contains more than different types of container ie web container, ejb container, jms container etc. web container is responsible to execute servlet and jsp and ejb container responsible to execute ejb. Application server provide some extra features connection pooling, thread management, resource management, security etc.

Servlet : Servlet is normal java program which help to create dynamic web page on server.

**servlet** : servlet is a package which contains set of classes and interfaces.

**import javax.servlet.\*;**

**Servlet:** Servlet is an interface which contains set of methods.

init

service

destroy

getServletInfo

getServletConfig

3 are known as life cycle method. init, service and destroy etc.

init 🡪 initialization , only once

service : it will call again and again whenever client send the request to server. Service method contains parameter as request and response.

destroy 🡪 at last to close the resource or destroy servlet object.

1st Approach

class MyServlet **implements** Servlet {

need to override all 5 methods mandatory.

}

**GenericServlet** : GenericServlet is a type of abstract class which internally implements Servlet interface and provided body for 4 method except service method.

2nd approach

Class MySevlet **extends** GenericServlet {

We need to provide the body for only service methods.

}

HttpServlet : HttpServlet is a type of abstract class which internally extends GenericServlet and provided body for **service** method. this class provided few extra method in the form of doXXX like doGet,doPost,doPut,doDelete etc.

3rd approach

Class MyServlet extends HttpServlet {

doGet or doPost or service

}