Day 1 : 8 June 2024

https://www.google.com -🡪 URL

(req)------🡪http/https---------------🡪

Client Server

🡨-------(res) http/https

Html/html5

Css/css3

Bootstrap

JavaScript

Html : hyper text mark up language : which help to create web pages. Html provided lot of pre defined tags which help to create web page. Before html4 we were creating static web page.

After html4 or html5 we can create dynamic web page.

Cascading style sheet :CSS provided lot of pre defined property in the form of key-value pairs which help to apply styling for web page.

JavaScript is scripting language which help to create dynamic web page on client side as well as help to validation on client side.

Using JavaScript we can read, write and update DOM.

Document object model.

Index.html

Html

Head body

Meta div

Style p hello

Script img

document.getElementById();

document.getElementsByName();

DOM parser : lot of programming language like java, python, JavaScript provide lot pre defined function or methods which help to read, write and update dom dynamically.

jQuery : jQuery is third library external library for JavaScript. Which provide lot of pre defined function which internally interact with each other to read, write and update dom properly.

$(“selector”).doOperationOnThatTag();

MVC : Model view controller

View : htlm, css, JavaScript, jQuery etc

Angular Framework : Angular is framework provided by google. Which internally follow MVC Model View Controller (Component). Framework provided lot api which internally connected to each others. 70 to 80 % task taken care by framework. Framework is not final product it is template or protocol. We need to write 20 to 30% code to make final product.

React JS : React JS is third library. React JS focus only on View in MVC. React JS is part of Facebook.

SPA : Single Page Application. In SPA rather than loading whole we can load only part of web page.

This SPA features provided by angular as well as react js.

In multi page application we can move from one page to another page using hyper link submit button or using JavaScript etc.

React JS provide virtual DOM.

Angular with TypeScript

React JS with Plain JavaScript using ES5/ES6/ TypeScript etc.

React With Redux or Flux with Design pattern.

React with JSX we need babel (transpiler) to convert JSX to Plain JavaScript.

Index.html welcome.html

Its DOM

Vue JS

React module : this module is use to create the react components.

React-dom module : this module is use to send virtual dom code to actual dom using render function.

React JS with Plain or Vanila JavaScript

React.createElement(1st,2nd,3rd);

1st parameter : new elements like h1, p, div etc

2nd parameter : Styling properties

3rd parameter : child tag or contents for main tag.

React JS Components

Component is use to control the view or part of view of web page.

In React JS we can create the component using

1. Function style : Old version JavaScript
2. Arrow style : ES6 style
3. Class style : ES6 style

JSX : JavaScript Extension :

Using JSX inside JavaScript we can write Dynamic HTML Code.

Before Node JS JavaScript is known as Client side scripting language. But After node JS JavaScript also known as Client side as well as server side scripting language.

Front end backend technologies

Html, css, JavaScript, jQuery Java (Servet/JSP / Spring(Spring boot))

Asp.net

Php

Python with Django

Node JS

Node JS provide lot of pre defined modules (core module, user defined module or external module) which help to develop server side programming language using JavaScript.

Node --version

Npm (node package manager) : npm is by default tool present with node js which help to download external module or dependencies.

npm install -g modulename

npm install -g create-react-app

open the command in the location where you want to create the project.

create-react-app project-name welcome-react-app as project name

after project created…

cd project-name move inside a project folder

npm start this command is use to run the project. It open on default browser with port number as 3000 <http://localhost:3000>

open this folder in Vs Code editor

Component :

Component is use to control the view or part of view.

Component we can create using

1. Function style
2. Class style
3. Arrow style

Function style

1. Component must follow Pascal naming rules. First letter upper case.
2. Component must return something. It must return DOM using without JSX or with JSX.

Using component we are creating user defined tags. That tags contains some DOM.

JSX Rules

1. Return single elements.

Nested Components

By default in react project App is consider as Parent Components.

function Header() {

return(

<header>

<h1>This is header components</h1>

</header>

)

}

function Footer() {

return(

<footer>

<h1>This is footer components</h1>

</footer>

)

}

function Main() {

return(

<section>

<h1>This is main component</h1>

</section>

)

}

function App() {

return(

<div>

<Header></Header>

<Main></Main>

<Footer></Footer>

</div>

)

}

In JavaScript till ES5 we were using var keyword to declare the variable.

From ES6 onward let as well as const keyword we are using to declare the variable.

In return or JSX section we can use {} to access the value. But value must return. Not a statement.

var a=10;

a=20; re-initialization

var a=30; re declaration

let b=10;

b=20;

let b=30; error

components : components hold two types of variables.

props and state

props is type of variable which help to share the data between one component to another components. (parent to child).

<font color=”red” size=6 face=”arial”></font>

Object creation in JavaScript literal style

let/var/const referenceName = {key1:value1,key2:value2,key3:value3}

JSON : JavaScript Object Notation

let/var/const referenceName = {“key1”:value,”key2”:value2,”key3”:value}

retrieving array value in JSX as List

list key props

to make value as unique in list we need to use as key attribute in Dom.

React JS with JSX