Day 17 : 19 Nov 2024 CB FSD - Planning and UI Design

**TypeScript:**

TypeScript is a type of scripting language like JavaScript. Which is also known as super set of JavaScript. TypeScript support Data types.

In JavaScript support run time data types based upon type of value we store. But in TypeScript at development time or compile time we mention the variable hold type value.

Browser doesn’t support TS or TypeScript file. Browser need JavaScript or js file.

To convert TS to JS file we need TSC (Typescript compiler or transpiler).

To make tsc command enable we need npm (node package manager) tool. Which help to download or enable tsc command.

To get npm tool in local machine or vm machine we need node js.

Node js : Node JS is known as run time environment for JavaScript or JS library or JS framework. Before Node js JS is known as client side scripting language (the script which run on browser). After node js we can say JavaScript is client side as well as server side scripting language(we can run js program outside browser environment ie using console).

Node JS internally provided npm command.

node --version

npm --version

using below command we can install external node js modules base upon our requirement.

npm install -g modulename

using above command we need to install typescript

npm install -g typescript

node JS doesn’t support BOM and DOM.

TypeScript support data types.

let a=10;

a=”Steven”; in JS

let id:number=100;

id=”Steven” error in TS

JavaScript functions

In JS it is not mandatory number of parameter as well as type of parameter must be match. Only function name match then that function it will call.

function add(a,b){

document.write(a+”, ”+b);

}

add(10,20); a=10,b=20

add(“A”,”B”); a=A,b=B

add(10); a=10,b=undefined

add(); a=undefined, b=undefined

In TypeScript number of parameter as well as type of parameter must be match.

In JS function can return any type of values as well as not mandatory to return the value.

But in TS we can make the function with no return type.

We can make the function with return specific type of values.

If we not write any return type by default it consider as any data types.

:void no return type

:string string return type

:number number return type

:any any return or not return . by default without :datatype any consider.