**ANGULAR**

1. **ANGULAR COMPONENT:**

**Creating a new component:**

ng generate component greet (or) ng g c greet

**greet.component.ts:**

import {Component} from '@angular/core';

@Component({

selector: 'greet',

templateUrl: './greet.component.html'

})

export class GreetComponent

{

msg:string ="";

alert(): void

{

this.msg = "Hello CSIT! Welcome to angular";

}

}

**greet.component.html:**

<input type="button" value="Click Me" (click)="alert()">

<h1> {{ msg }} </h1>

1. **ANGULAR COMPONENT LIFECYCLE:**

**app.component.ts:**

import { Component, OnInit,OnChanges,DoCheck,AfterContentInit,AfterContentChecked,AfterViewInit,AfterViewChecked,OnDestroy } from '@angular/core';

@Component({

selector: "app-root",

templateUrl: "./app.component.html"

})

export class AppComponent implements OnInit,OnChanges,DoCheck,AfterContentInit,AfterContentChecked,AfterViewInit,AfterViewChecked,OnDestroy {

constructor()

{

console.log("Constructor is Invoked");

}

ngOnInit()

{

console.log("Inside Component Init");

}

ngOnChanges()

{

console.log("Inside Component ngOnChanges");

}

ngDoCheck()

{

console.log("Inside Component ngDoCheck");

}

ngAfterContentInit()

{

console.log("Inside Component AfterContentInit ");

}

ngAfterContentChecked()

{

console.log("Inside Component AfterContentChecked ");

}

ngAfterViewInit()

{

console.log("Inside Component AfterViewInit ");

}

ngAfterViewChecked()

{

console.log("Inside Component AfterViewChecked ");

}

ngOnDestroy()

{

console.log("Inside Component Destroy");

}

}

1. **DATA BINDING IN ANGULAR:**

**app.component.ts:**

import {Component} from '@angular/core';

@Component(

{

selector : 'app-root',

templateUrl: './app.component.html'

})

export class AppComponent{

name:string = "CSIT";

topic:string = "Data Binding in Angular";

imageurl = "./assets/Joy.png";

msg:string = "";

display()

{

this.msg = "Welcome to Angular";

}

}

**app.component.html:**

<div>

<h1>Hello {{name}}</h1> **//INTERPOLATION**

<h2>Today's topic is: {{topic}}</h2>

</div>

<div>

<img [src] = "imageurl"> **//PROPERTY BINDING**

</div>

<div>

<input type="button" value="click me" (click) = "display()">

**//EVENT BINDING**

<br>

{{msg}}

</div>

<div>

<input type="text" [(ngModel)]="name"> **//TWO WAY BINDING**

{{name}}

</div>

1. **COMPONENT COMMUNICATION:**

* **PARENT TO CHILD:**

**PARENT COMPONENT:**

**app.component.ts:**

export class AppComponent {

parentmsg:string = "This is a message from parent";

}

**app.component.html:**

<child [name]="parentmsg"></child>

**CHILD COMPONENT:**

**child.component.ts:**

export class TestComponent{

@Input() name: string = "";

}

**child.component.html:**

{{name}}

* **CHILD TO PARENT:**

**CHILD COMPONENT:**

**child.component.ts:**

export class ChildComponent{

@Output() childEvent = new EventEmitter<string>();

fireevent()

{

this.childEvent.emit("THis is a message from child");

}

}

**child.component.html:**

<input type="button" (click) = "fireevent()">

**PARENT COMPONENT:**

**app.component.ts:**

export class AppComponent {

message:string = "";

receiveMessage(data:string) {

this.message = data

}

}

**app.component.html:**

<child (childEvent) = "receiveMessage($event)"></child>

{{message}}

1. **ANGULAR DIRECTIVES:**

**Structural Directives:**

* **If-else**

**app.component.ts:**

export class AppComponent

{

courses = ["Angular","Node","Express"];

}

**app.component.html:**

<div \*ngIf="courses.length > 0 then ifblock;else elseblock"></div>

<ng-template #ifblock>

<h1>List of Courses: {{courses}}</h1>

</ng-template>

<ng-template #elseblock>

<h1> No Courses were available </h1>

</ng-template>

* **For:**

**app.component.ts:**

export class AppComponent

{

courses = ["angular","react","node","express"];

}

**app.component.html:**

<ul>

<div \*ngFor="let c of courses">

<li>{{c}}</li>

</div>

</ul>

* **Switch:**

**app.component.ts**

export class AppComponent

{

num:number=0

**}**

**app.component.html**

Enter a Number from (1 to 5):

<input type="text" [(ngModel)]="num">

<div [ngSwitch]="num">

<div \*ngSwitchCase="'1'">One</div>

<div \*ngSwitchCase="'2'">Two</div>

<div \*ngSwitchCase="'3'">Three</div>

<div \*ngSwitchCase="'4'">Four</div>

<div \*ngSwitchCase="'5'">Five</div>

<div \*ngSwitchDefault>This is Default</div>

</div>

**Attribute Directives:**

* **Class:**

**app.component.ts**

export class AppComponent

{

students = [

{id:301, name:"Amber",year:3},

{id:302, name:"Bob",year:2},

{id:303, name:"Cathe",year:3}]

}

**app.component.html:**

<head>

<style>

.three

{ background-color:blue;

color:white;

}

.two

{ background-color:orange;

color:blue;

}

.align

{ text-align:center

}

</style>

</head>

<div \*ngFor="let s of students">

<div [ngClass]="{three:s.year==3,two:s.year==2,align:true}">

{{s.name}}

</div>

</div>

* **Style:**

**app.component.ts:**

export class AppComponent

{

courses = ["Angular","React","Node","Express"];

}

**app.component.html:**

<div \*ngFor = "let c of courses">

<div [ngStyle]="{'background-color': 'red', 'text-align':'center'}">{{c}}</div>

</div>

1. **ANGULAR ROUTING:**

**Create a new application and enable routing:**

ng g new demo --routing

**Create 2 new components as Courses and Student:**

ng g c Home

ng g c Login

**Home.component.html:**

<h1> Home Page </h1>

**Login.component.html:**

<h1> Login Page </h1>

**app-routes.ts:**

import { RouterModule, Routes } from '@angular/router';

import { HomeComponent } from './home/home.component';

import { LoginComponent } from './login/login.component';

export const routes: Routes = [

{path:'home',component:HomeComponent},

{path:'login',component:LoginComponent}

];

**app.component.html:**

<h1>Routing Example</h1>

<a href="home">Home</a> <br>

<a href="login">Login</a>

<router-outlet>

</router-outlet>



