Week 7 Angular

Angular – Is a JavaScript based SPA Framework.

SPA – Single Page Application (Index.html and many components on top of it)

Component – Reusable piece of code (ts, html, css – controller, template, style)

TypeScript – Is the SuperSet of JavaScript language (Strongly -typed Language)

It has all the features of JavaScript and few more additional enhancements.

Transpiling – Is the process of converting typescript file to javascript

Tsc – typescript compiler

To Create any js based framework applications, we need js run time first.

NodeJS – Open Source JS Runtime Environment (based on chrome v8 Engine)

To learn angular the pre-requirements 1) NodeJS 2) TypeScript

Angular CLI – Command Line Interface.

Node -v

Npm -v

Npm install -g @angular/cli

Ng v

(13.x) [2 release in a year]

Ng new <app-name>

Cd <app-name>

Ng serve -o (To open the output in browser)

Default port number for angular app is : 4200 (localhost:4200)

Package.json – Is the backbone of any js based framework. (it contains all the scripts to run, build, deploy the app and also the dependencies of the app)

Tsconfig, angular, …..

Npm – Node package Manager (package.json Is similar to pom.xml in java) –

By default, while installing nodejs, npm also added to it automatically.

TypeScript data types, Decorators (annotation), Classes, Interfaces, variables and access modifiers.

Type Script is the OOP Language. (Inheritance, Encapsulation)

Angular CLI – Is a Command line interface which help to manage angular application. (Create, Build, run, Test & Stop)

Ng new <app-name>

Cd <app-name>

Ng serve

Ng generate c <component\_name>

Ng generate s <service\_name>

Ng generate class <class\_name>

Ng generate interface <interface\_name>

1. Only one module (root-module) <app-root>
2. Module contains components. (root-component) app.component
3. Each component will have minimum of 2 files and max of 4 files (.ts, .html,.css & .sepc.ts)

Structural directives, AttributeDirectives (ng, ngFor, ngIf, ngSwitch…..)

Decorators (Similar to Annotations in Java, which provides more information of a underlying file)

With the help of decorators we are able to create custom html tag.

@Component (attributes)

@NgModule

Pipes – Its only for view purpose. We can’t modify the source data using pipes.

Type of Pipes

1. Built – in Pipes (Currency, Number, Data, String)
2. Custom/ user defined pipes

Angular Bindings

1. One Way Binding (property binding [], event binding(), interpolation {{}})
2. Two way Binding (Banana in a box syntax) [()]

Service & Dependency Injection

Http client, Routing, Rout Guards,

RXJS Observables & Subjects

Agile (Waterfall Model)