Angular 12

Duration – 5 days

Pre-requisites: Participants should be familiar with HTML5, CSS and basic JavaScript, Knowledge of RESTful web services will be good, but not compulsory.

Softwares Required:
1) **NodeJS**
   URL: https://nodejs.org/en/download/
      Verion: Latest LTS Version:
      Windows: Windows Installer (.msi) 64 bit
      After Installation test using:
      Command Prompt: node -v
      Command Prompt: npm install -g @angular/cli
      Mac:
      Using Homebrew
      $ brew -v
      $ brew install node
      $ node -v
      $ npm install -g @angular/cli
2) **Visual Studio Code:**
      URL: https://code.visualstudio.com/download
3) **JSON server:**
      a.   npm i -g json-server
4) Chrome/Firefox Browser
5) Internet (open internet or proxy settings for npm)

Typescript introduction
   o   Types as in TypeScript
   o   Enums
   o   Return types
   o   Interfaces
   o   Optional arguments
   o   Classes
   o   Working with other libraries
   o   Decorators
- Webpack Introduction
- Angular's philosophy

- o Architecture
- o Building a TypeScript app
- o Our first component
- o Bootstrapping the app
- o Angular-cli
- The templating syntax
  - o Interpolation
  - o Using other components in our templates
  - o Property binding
  - o Events
  - o Expressions vs statements
  - o Local variables
  - o Structural directives (NgIf, NgFor, NgSwitch)
  - o Other template directives (NgStyle, NgClass)
  - o Canonical syntax
- Building components and directives
  - o Introduction
  - o Components: view providers, change detection, template, styles, encapsulation
  - o Making a component available
- Forms
  - o Forms, dear forms
  - o Model driven
  - o Template driven
  - o Adding some validation
  - o Errors and submission
  - o Creating a custom validator
  - o Grouping fields
  - o Reacting on changes
  - o Services
  - o Making your own service
  - o Send and receive data with HTTP
    - ▪ Getting data
    - ▪ Transforming data
- Observables
  - ▪ subscribe, unsubscribe, and async pipe
  - ▪ Leveraging operators
  - ▪ Build your own Observable
- Reactive Programming
  - o General principles
  - o RxJS
  - o Reactive programming in Angular
- Pipes

- o json
- o slice
- o uppercase
- o lowercase
- o number
- o percent
- o currency
- o date
- o async
- o Creating your own pipes
- Router
  - o Navigation
  - o CanActivate Guards
    - ▪ Security

Jasmine- JavaScript testing framework

- Introduction to Jasmine

- Get Jasmine

- Matchers

- Before and After

- Testing your app
  - o Unit Testing Components using JASMINE and KARMA

Deploying an Angular App

Module Introduction

Deployment Preparations and Important Steps