



Angular - Overview



Topics to be covered

- > Angular 2 Overview
- Components
- Directives
- Services
- Pipe
- HttpModule
- Data Binding
- > Events
- Observables & Promises
- UI Design

Getting Started

- ➤ What is AngularJS
- Comparing Angular 1 and Angular 2
- > Environment Setup
- ➤ Introduction to QuickStart package

What is AngularJS

- Structural client side framework for dynamic web application
- What HTML would be if it was created for to create a complete Dynamic Web Apps
- Often used to build SPAs (Single Page Apps)
- Grouping of Code into "Components"

What AngularJS is not

- Server Side Framework
- JavaScript library (JQ, ReactJS, MooToos)
- Architecture of Design Pattern (MVC, MVVM)
- Plateform (unlike .Net, Java)
- Plugin, Extension

- Web Apps that load a single HTML page and dynamically update the page as the user interacts with the app.
- It gives the user more fluid experience
- Certain parts of the application are updated but full page is not reloaded

Structuring App with Components

- Components divide the responsibilities of the app
- Re-Use of code
- Easy to read and share with other developers
- Angular2 makes better use of Component

Why use AngularJS

- Speed & Performance
- Simple & Expressive
- Cross platform
- Flexible
- Comprehensive Routing
- 2 Way Data Binding
- Dynamic Templating

Angular saves us from

- Registering Call backs
- Manipulating DOM programmatically
- Marshalling Data to and from the UI
- Initialization Code

Angular Vocabulary

- Template
- Directive
- Model
- Scope
- Component
- Filter
- View
- Data Binding
- Controller
- Dependency Injection
- Injector
- Module
- Service

New in Angular 2

- In 2014, The Angular team decided to drastically change the Agular framework.
- If you already know Angular1, there is still more to learn as many things have been changed, added or removed
- We will not be looking at angular 1 more in depth

What is gained in Angular 2

- Re-Usable and more readable code with components
- Reduce Learning Curve
- Performance enhancement
- ES6 JavaScript 6
- Better Mobile Support
- Embrace FLUX (Desgin Architecture) & RxJS (Reactive Extension to Java Script)
- Controller and \$scope are gone
- Properties are bound to components instead of \$scope

Data Flow

- Data flow changed
- One way data binding from a component to the UI
- One way data binding from UI to component using event
- Two data binding still available, but not needed much.
 - ng-model is available, but used less & that too in different way

Template

- Similar to Angular 1
- Some Syntactical changes to make things more clear
- New build in Directives

Environment Set Up

- Now Angular2 is bundled with lots of dependencies. Application setup is done by Angular quickstart
- For running the angular 2 apps, below dependencies need to be first available on your system
 - NodeJS
 - ATOM / Bracket/ Visual Studio

Angular QuickStart

- Below are the instruction of setting up the first angular app named:
 HelloWorldAngualrApp
- Create a folder named HelloWorldAngularApp
- Unzip the provided quick start folder.
- Go inside the quick start folder and select all the files and cut, and paste in HelloWorldAngularApp folder.
- Remove unnecessary folders.

Remove the not required files with below command. for /f %i in (non-essential-files.txt) do del %i /F /S /Q rd e2e /s /q

Run below commands to run the application npm install npm start



Some important npm Commands

- npm install: to install the npm module in project folder
- npm start: runs compiler and server at the same time, both in "watch- mode"
- npm run tsc runs the typescript compiler once
- npm run tsc:w runs the typescript compiler in watch mode.
- npm run lite: -runs the lite-server, a light-weight, static file server
- npm run typings: runs the typing tool
- npm run postinstall: -called by npm automatically after, it successfully completes package installation.



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