

# Angular



# What is Angular and Why it is popular?

- Framework for client side Applications
- Great for Single Page Applications (SPA's)
- Performance and mobile supports
- Clear structure with modular approach - Everything is Component
- Code reusability with components
- Quick development with validations and routing
- Unit testable
- Angular (Google) + TypeScript (Microsoft)
- Angular is complete framework. It includes routing, remote calls, form validations, etc...

# Angular: Past, Present & Future

## Angular 1.x

- Released on 2010
- Angular 1.0 to 1.6
- MVC based with JavaScript having Controllers

## Angular 2+

- Angular 2 -2016
- Angular Version 4 - 2016 Dec
- Angular Version 5 - 2017 Nov
- Angular Version 6 - 2018 Apr
- Angular Version 7 – 2018 Oct
- Component base with Typescript

Is it necessary to learn all versions? NO

# Competing Technologies

- **React** - It is a component-based library which is used to develop interactive UI's.
- **Vue** - It is an open-source JavaScript framework for building UI's and single-page applications.
- **jQuery** - jQuery is a JavaScript library designed to simplify cross-browser development.

# Angular Vs React

- Angular: **a framework**, React: **a view library**.
- Angular is from **Google**, React is from **Facebook**.
- Angular uses **HTML and CSS** in their pure form. React uses a **JSX** notation that looks like HTML but is not an HTML.
- Angular leans towards HTML. In React everything is JavaScript.
- Components: Angular and React both allow you to create components but they are not cross compatible. React's Component Architecture is simpler.
- Angular code is more type-safe than React code due to TypeScript language.
- Both support virtual DOM.

# Prerequisites

- HTML5 & CSS
- TypeScript & ES6
- Knowledge of AngularJS is optional

# What is TypeScript?

- Free and open-source programming language developed by Microsoft.
- Superset of JavaScript and compiles to JavaScript through a process called Transpilation.
- Benefits
  - Intellisense, Autocompletion, Code navigation, Advanced refactoring, **Strong Typcasting**, Supports ES 2015 (also called as ES 6) features like classes, interfaces and inheritance
- If you have any experience with Object oriented programming languages like C# and Java, learning TypeScript is easy.

# Development Environment

- Node
  - Go to <https://nodejs.org/en/>
- npm - node package manager
- Angular CLI - Angular Command Line Interface
  - Used to generate building blocks of your angular application by just typing the commands in the command prompt.
  - It makes your development quicker and easier.
  - Go to <https://cli.angular.io/>
- Text Editor - Visual Studio Code
  - Go to <https://code.visualstudio.com/>



Thank You!