**Angular 2**

Angularjs 1 released in 2010

* Performance :faster initial loads, change detection, improved rendering time
* Improved modularity
* Dependency injection
* Mobile support(without 3rd party)
* Component based development(means greater code reuse and testable)
* Build on typescript(typescript has support of ECMAScript6).

What is ECMAScript:

* Javascript official language standard is called ECMAScript.
* Has several releases(1-7).
* Most modern browsers available today support till ECMS5
* Browser support for ECMA6 is still incomplete.
* So we have **transpilation** compiles ECMA6 to ECMA5
* ECMA6 is officially known as ECMA2015.
* New features in ECMA2015- Classes, Modules, arrow functions etc.

What is typescript?

* TypeScript is a free and open-source programming language developed by Microsoft.
* It is a superset of JavaScript and compiles to JavaScript through a process called transpilation.
* Using TypeScript to build angular applications provides several benefits.  
  1. Intellisense   
  2. Autocompletion   
  3. Code navigation   
  4. Advanced refactoring   
  5. Strong Typing   
  6. Supports ES 2015 (also called 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.
* Because of all these benefits writing, maintaining and refactoring applications can be an enjoyable experience. So obviously TypeScript has become the number one choice of many developers for developing Angular applications.

Running Angular2 on Visual studio 2015

1. Intall node
2. Install typescript
3. Make sure visual studio 2015 update 3.
4. Download quick start template for anngular2 from github
5. Select src, package.json, tsocnfig.json, lint.json and include in the project.
6. Rightclick on package.json and restore packages.
7. Now open cmd window and type npm start
8. Or change in index.html base href=”/src”, script src=”/node…….” And in systemsjs.config.js ‘npm’:’/node\_modules’.

**Component:**

A component in angular is a class with a template and decorator  
Template:defines UI,contains HTML, directives and databindings  
Class : contains required code for template,  
 contains methods(contains logic for the view) and properties(data that we want to display in the view template).  
Decorator: provided by angular to add metadata to the class, A class becomes an Angular component, when it is decorated with the Component decorator.

**Template vs TemplateURL:**

Template: we can replace a pair of back tick chars with single or double quotes, when we have html in one line.