# Angular 8

# Angular is framework that is used to build client side application. It is great for building single page application where parts of views get refreshed asynchronously without having to reload the entire page.

**If any application rely heavily on java script then Angular is great choice.**

* **Why learn Angular as approach to some other java script framework or literary?**

There are couple of points:

1. By design Angular promotes Modular approach and application we built will have clear structure.
2. By making use of components which is a feature of Angular we can have a lot of reusable code.
3. Angular has lot of inbuilt capabilities such as Validations, routing, and so on which make development quicker and easier.
4. Angular even makes it possible to write unit testable and easily maintainable code.
5. And finally Angular is product of Google team and makes use of Type script language of Microsoft so it safe to say Angular is here to stay.

* **Angular’s History**

1. **2010 – Angular js**

This was huge hit and a lot of organization started using Angular JS to build their Enterprise Applications.

1. **2016 – Angular Version 2**

This was called just Angular. It was announced that Angular JS will refer to the 1.x versions and **Angular** without the JS will refer to version 2 and up.

1. **2016 Dec – Angular Version 4**

In Dec 2016 Angular 4 was announced. Version 3 was skipped to avoid the confusion due to the misalignment of router’s package version which was already distributed as version 3.3.0.

1. **2017 Nov – Angular Version 5**

Key improvements in Angular 5 include support for [progressive web apps](https://en.wikipedia.org/wiki/Progressive_web_app), a build optimizer and improvements related to Material Design.

1. **2018 May – Angular Version 6**

This is a major release focused less on the underlying framework, and more on the toolchain and on making it easier to move quickly with Angular in the future, like: **ng update**, **ng add**, **Angular Elements**, **Angular Material** + CDK Components, Angular Material Starter Components, CLI Workspaces, Library Support, Tree Shakable Providers, Animations Performance Improvements, and RxJS v6.

1. **2018 Oct – Angular Version 7**

Updates regarding Application Performance, Angular Material & CDK, Virtual Scrolling, Improved Accessibility of Selects, now supports Content Projection using web standard for custom elements, and dependency updates regarding Typescript 3.1, RxJS 6.3, Node 10 (still supporting Node 8).

1. **2019 May – Angular Version 8**

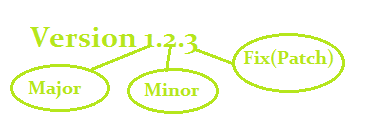
Featuring Differential loading for all application code, Dynamic imports for lazy routes, Web workers, TypeScript 3.4 support, and Angular Ivy as an opt-in preview. Angular Ivy opt-in preview includes:

* Generated code that is easier to read and debug at runtime.
* Faster re-build time.
* Improved payload size.
* Improved template type checking.
* Backwards compatibility.
* **Angular version changes**

Now let’s discuss about whether we should learn Angular with all the version changes happening.

In any framework there is always room for improvement and the same in case of Angular. Google team has decided they will upgrade angular twice in a year and stick to **sematic versioning**.

Meaning of Sematic versioning:



Major – This version id changes when there is break in any functionality.

Minor – This version id changes when added features that don’t break any functionality.

Fix (Patch) – This number will increase any time if there is bug fix or some patch.

* **TypeScript**

TypeScript is just a superset of JavaScript. It offers more features than vanilla JavaScript, like classes interfaces and, very important which gives it the name types Strong typing.

TypeScript allows us to write much more robust code which gets checked at the time we write it and not just the time we run it.

**TypeScript doesn’t run on browser so it compiles to JavaScript into the end and this compilation is handled by the CLI. One of the reasons why we need project management tool like CLI.**