
ANGULAR

A GLIMPSE INTO ANGULAR

What is ANGULAR?

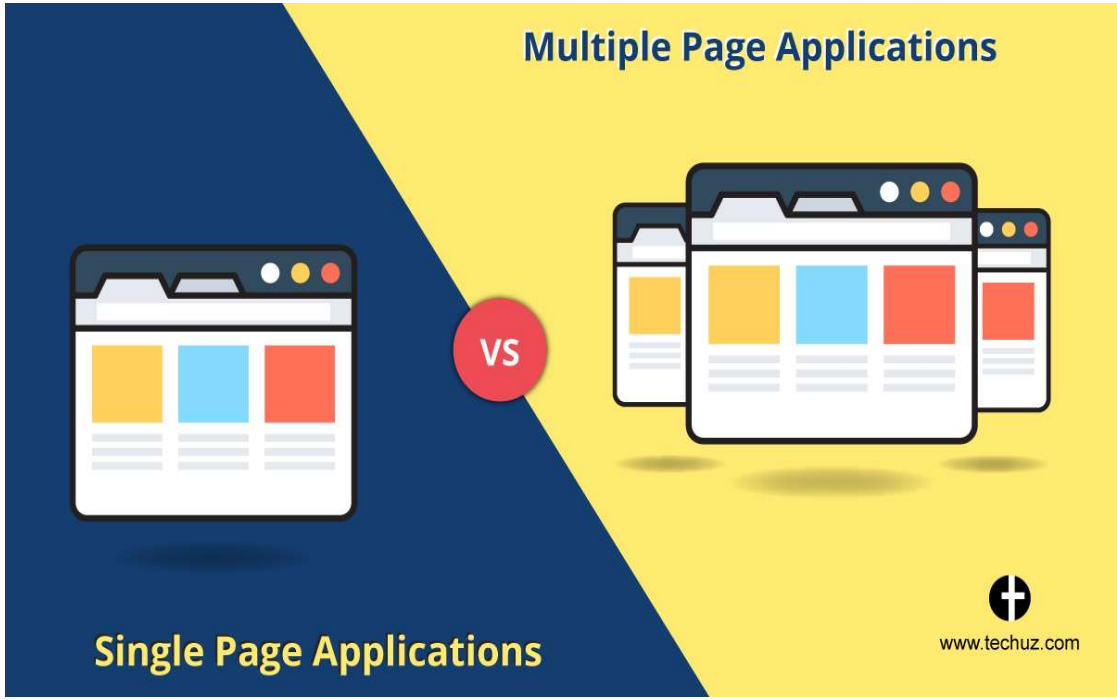
- Angular is a platform and framework for building single-page client applications using HTML and TypeScript. Angular is written in TypeScript.

Why it is used?

- A component-based framework for building scalable web applications.
- A collection of well-integrated libraries that cover a wide variety of features, including routing, forms management, client-server communication, and more.
- A suite of developer tools to help you develop, build, test, and update your code.

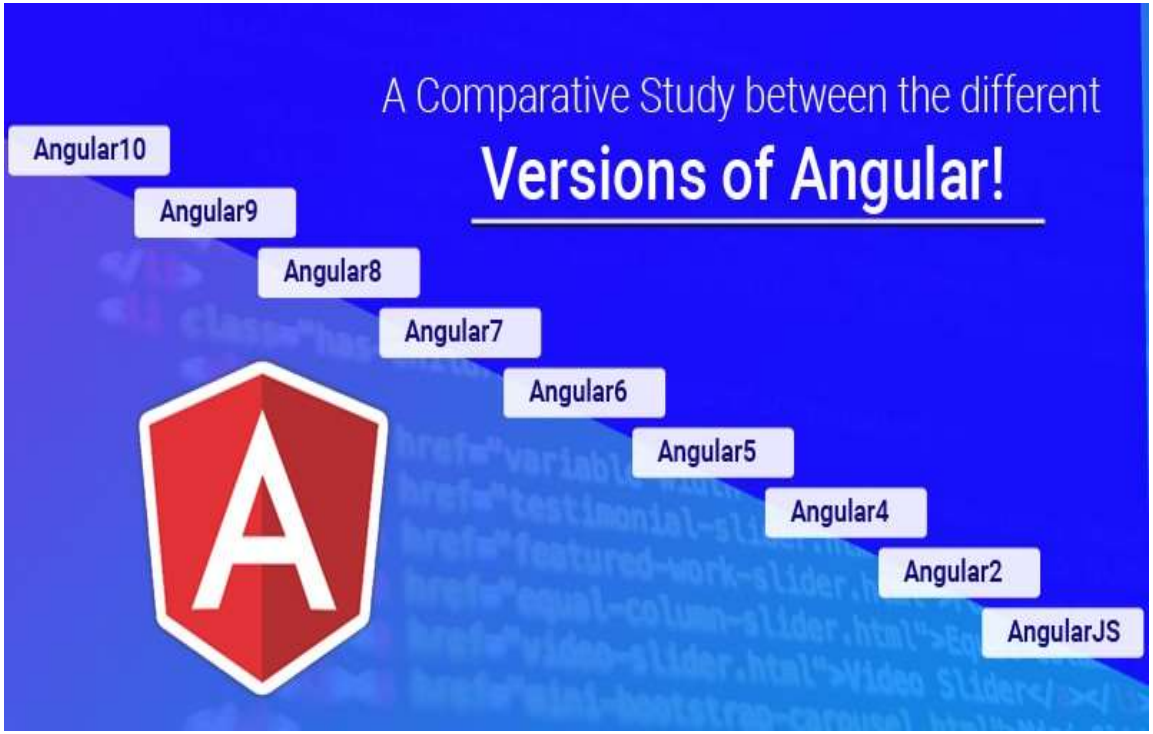
SINGLE PAGE APPLICATION

- As per the name suggests single page applications consists just one single page. SPAs present the content in an easy, elegant and effective way as it loads all the content on just one single page rather than navigating the user to different pages.
- SPAs provide a bunch of benefits like seamless and smooth user experience, easy development, simplified debugging and reuse of the same code to built mobile apps. Many apps that you frequently use are single page apps. To name a few: Facebook, Twitter, Gmail, Google Docs, etc.
- SPAs are faster than traditional web applications because they execute the logic in the web browser itself rather than on the server. And after the initial page load, only data is sent back and forth instead of the entire HTML that reduces the bandwidth.



DIFFERENT VERSIONS OF ANGULAR

- Angular version 1.0 which is known as AngularJS was released in 2010 by Google
- Angular version 2.0 was released in September 2016
- Angular 4.0 was released in March 2017
- Angular 5.0 was released in Nov 2017
- Angular 6.0 was released in May 2018
- Angular 7.0 was released in Oct 2018
- Angular 8.0 was released in May 2019
- Angular 9.0 was released in Feb 2020
- Angular 10.0 was released in June 2020



ANGULAR 2 vs ANGULAR 4

ANGULAR 2	ANGULAR 4
There is no animation feature offers in Angular 2.	Animation features are pulled out of @angular/core and included into their package.
It has a component-based directive.	Angular 4, this has been improved in terms of enhancement of structural directives of ngif and ngFor. Also, in Angular 4, you can use if/else design syntax for your templates.
Fast in assembling and processing the application	But,Angular 4 is faster, and due to less AOT time in its compiler-generated code, it is smoother and swifter than both AngularJS and 2.
It supports the 1.8 version of Typescript	Angular 4 can easily support its higher version- 2.1 and 2.2.

DID I MISS ANGULAR 3 TO EXPLAIN?

- Angular is being developed in a MonoRepo it means a single repo for everything. @angular/core, @angular/compiler, @angular/router etc are in the same repo and may have their own versions.
- The advantage of MonoRepo is, you don't have to deal with the versioning of the code dependencies.
- Now the problem is with the @angular/router which is already in a 3.X version. And that's because of some active and huge developments on the router section, like route-preload.
- Now releasing Angular as version 3, with its router on version 4 will create confusion.
- To avoid this confusion they decided to skip the version 3 and release with version 4.0.0, so that every major dependency in the MonoRepo are on the right track.

@angular/core	v2.3.0
@angular/compiler	v2.3.0
@angular/compiler-cli	v2.3.0
@angular/http	v2.3.0
@angular/router	v3.3.0

ANGULAR 4 VS ANGULAR 5

ANGULAR 4	ANGULAR 5
Changes in core library & Else block in *ngIf introduced	Build optimizer: It helps to removed unnecessary code from your application
Animation features are separated from @angular/core to @angular/animation — don't import @animation packages into the application to reduce bundle size and it gives the performance improvement.	Improved in faster Compiler support: A huge improvement made in an Angular compiler to make the development build faster. We can now take advantage of by running the below command in our development terminal window to make the build faster. ng serve/s — aot
Support of 2.1 and 2.2 version in Angular 4.	Angular 5 supports TypeScript 2.3 version.
Angular 4 does not provide the option to restrict the unneeded white spaces, tabs and newlines.	Angular 5 helps preserve white space, which keeps the code organized. It helps to optimize the code for different browsers.

ANGULAR 6 VS ANGULAR 7

ANGULAR 6	ANGULAR 7
TypeScript 2.7 support	TypeScript 2.9 support
It uses angular.json instead of .angular-cli.json	Angular 7 added a new compiler — Compatibility Compiler (ngcc) Introduce a new Pipe called — KeyValuePipe
ng-update	Angular Do-Bootstrap interface added
Internationalization (i18n)	Drag and Drop
ngModelChange	Better Error Handling
<ng-template> updated to <template>	Native Script

ANGULAR 8 & 9 FEATURES

ANGULAR 8 VS ANGULAR 9

ANGULAR 8	ANGULAR 9
Ivy Engine	Default Ivy in v9
Improvement in ng-upgrade	Service worker updates
Lazy Loading	Dependency injection changes in core
Support for Node 10	i18n improvements
CLI workflow improvements	More reliable ng update
Upgrading Angular Material	API Extractor Updates
TypeScript 3.4 support	Typescript 3.7 support
Differential Loading	Component Harness
Allow passing state to routerLink Directives in the Router& NavigationExtras in the Router	The AOT builds will be noticeably faster ensuring a significant change in the compiler's performance.