

Angular

Capgemini 

Angular



Angular is an extremely productive Javascript framework for developing web and mobile single page apps. Single Page Application (SPA) is a package of one HTML file and a group of JavaScript code.

- Angular is a JavaScript framework for building single-page client applications using HTML and TypeScript. It is primarily written in TypeScript and implements core functionality as a set of TypeScript libraries that import into our apps.
- The main Angular elements are directives, data binding, modules, components, templates, dependency injection.
- It is one of the top frameworks for building dynamic web applications.



Version:

- ❖ Angular 10 was released on June 24, 2020.
- ❖ Angular 11 was released on November 11, 2020.
- ❖ Angular 12 was released on May 12, 2021-
- Angular 13 was released on 4 November 2021
- Angular 14 was released on 2 June 2022
- Angular 15 was released on 16 November 2022.
- Angular 16 was released on 03 May 2023

Multi-Page Applications (MPA)



Traditionally, applications were **Multi-Page Application (MPA)** where with every click a new page would be loaded from the server.

SPA (Single Page Applications)

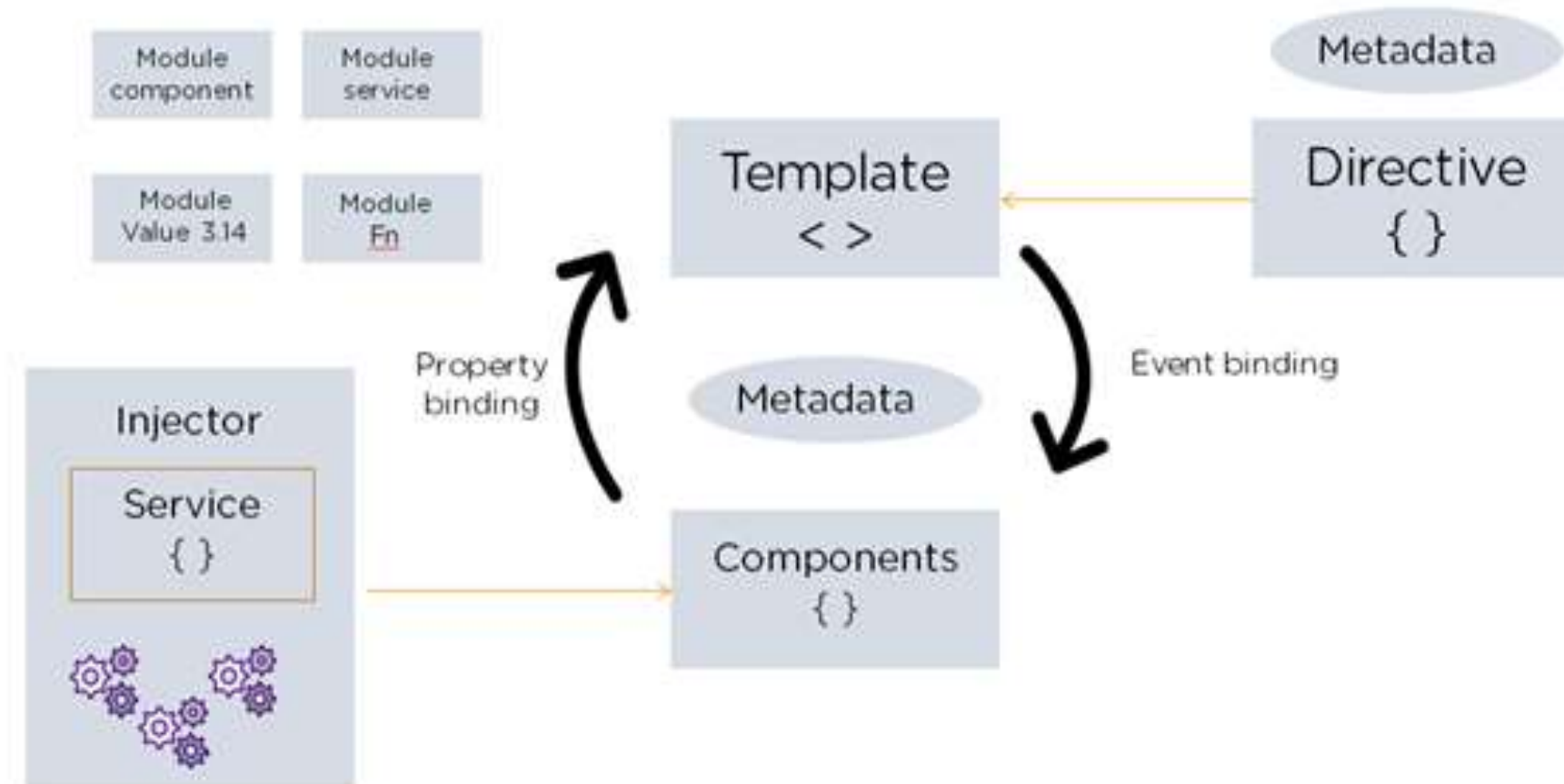
Single Page Applications are web **applications** that load a **single** HTML **page** making the application behave more like a desktop application. The **page** does not reload or transfer control to another **page** during the process. This ensures high performance and loading **pages** faster.

Angular is a front-end web framework based on bidirectional and is used to design Single Page Applications.



Angular Architecture

Angular is a framework for building client applications in HTML and either JavaScript or a language like Type Script .





Angular CLI(Command Line Interface)

- Angular has its own official CLI that helps us with lots of things during the development process.
- Angular CLI is being used for automating operations in Angular projects rather than doing them manually. CLI supports us, developers, in an Angular project from beginning to end.
- For example, Angular CLI can be used for:
 - ❖ Configurations, Environment Setup
 - ❖ Building components, services, routing system
 - ❖ Starting, testing and deploying the project

Install Angular CLI:



Create a new Angular Project

After the installation is completed, we can use Angular CLI to create a new Angular project with the following command:

```
ng new my-first-app
```

Run the App

After installing the CLI and creating a new Angular app, the final step is to start the project. To do that, we need to use the following command:

```
ng serve --o
```

Workspace and project file structure



❑ Application project files:

- node_modules/
- app/
- assets/
- environments/
- favicon.ico
- index.html
- main.ts
- polyfills.ts
- styles.css
- test.ts

Workspace configuration files



- .editorconfig
- .gitignore
- angular.json
- package.json
- package-lock.json
- README.md
- tslint.json