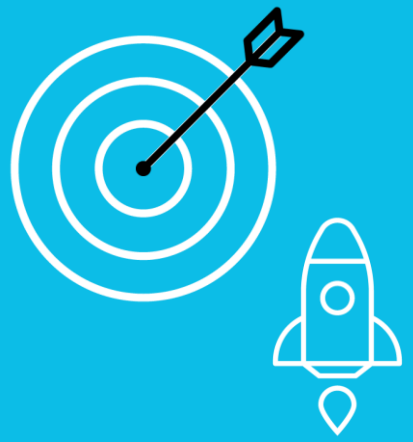
Angular 8

Lesson 2: Angular 8 Architecture & Component

KEY OBJECTIVES



At the end of this lesson, you will be able to:

- Discuss about the Angular architecture
- Define component in Angular
- Discuss the process to create a component
- Define Angular CLI and its commands

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Angular 8 Architecture & Component

Architecture

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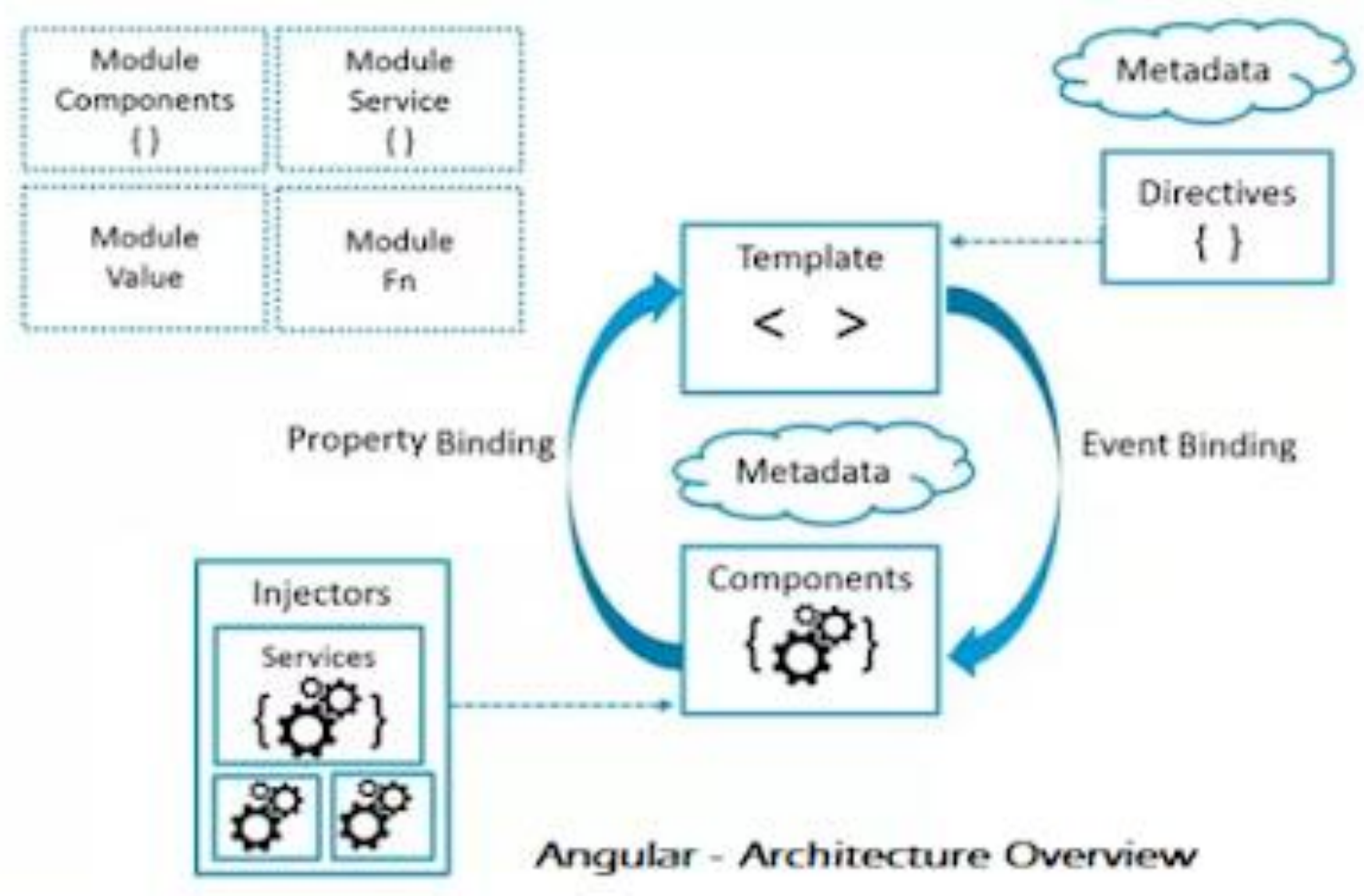
Angular 8 Architecture

- Modules
- Components
- Templates
- Metadata
- Data-Binding
- Directives
- Services
- Dependency injection



https://www.code-sample.com/2018/01/angular-4-and-5-architecture-overview.html

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Architecture Overview

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MODULES

- Angular 8 Ngmodules are different from other JavaScript modules.
- Every Angular 8 app has a root module known as App module
- It provides the bootstrap mechanism that launches the application

COMPONENTS

- All the Angular projects have at least 1 component called the root component.
- This root component connects the components with DOM
- Every component describe a class that holds data, application, logic and also binds with the HTML template

TEMPLATES

- Templates help to join HTML with Angular markup and modify HTML elements before displaying
- Template directives give program logic

META DATA

- They are the decorators in Angular.
- It enhances the class to configure the behavior of a class
- It informs the Angular app about the app component is component
- It can attach to the typescript through the decorator

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Architecture Overview

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DATA-BINDING

- Data binding connects your application data and the DOM
- Event binding and Property binding are the 2 types of data binding

DIRECTIVE

- They expand the functionality of HTML element
- Structured, Attribute, and Component directives are the three types of directives

SERVICES

- The service class is created for data or logic that is not associated with a specific view and want to share across components

DEPENDENCY INJECTION

- It makes your component classes lean and efficient
- It does not take data from the server, valid user input or log directly
- It just renders such tasks to services

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Component

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What are Components?

A root component is the one contained in the bootstrap array in the main ngModule defined in the app.module.ts file

It consists of a selector, templates, style, and other properties and also specifies the metadata required to process the component

Components are the basic building block for Angular.

The crucial aspect of components are re-usability

The component makes the complex application in reusable parts that can be used easily

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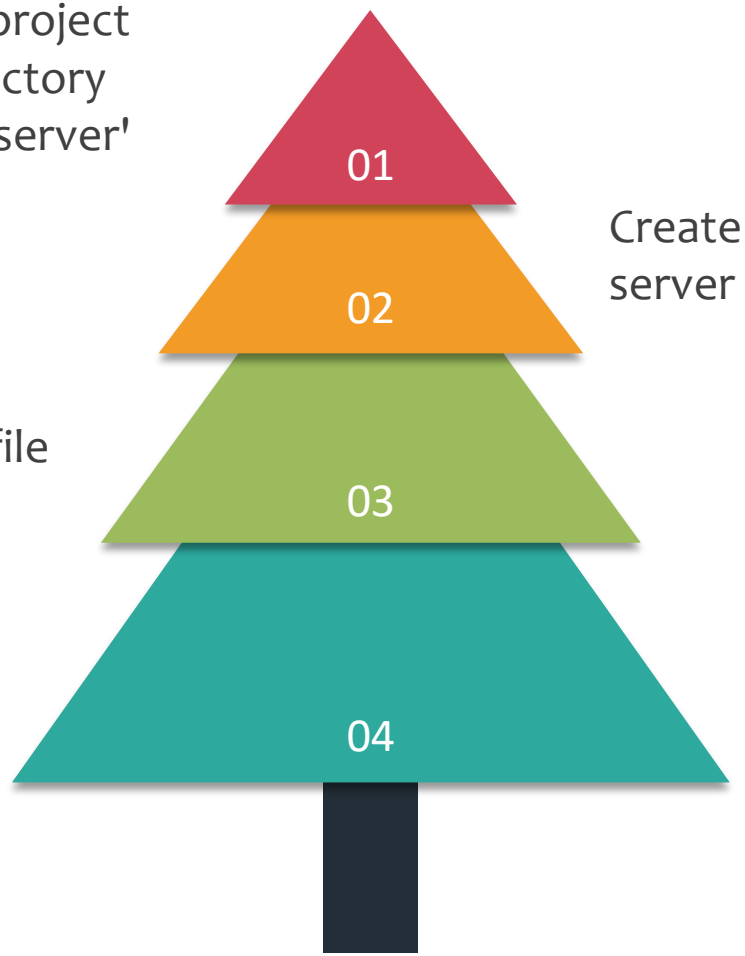
Creating a Component

Open the VS code and in the project source folder expand the directory and create a new list named 'server'

Right-click on the server directory and create a new file ‘server.component.ts'



Create a component in the server directory

components are used to develop webpages in all versions of Angular but modules are used to bundle them together

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Creating Component with CLI

Component can also be created with the help of CLI (Command Line Interface)

```
Syntax:

ng generate component component_name
Or
ng g c Component-name
```

```
javaTpoint@DESKTOP-1CCOODQ MINGW64 ~/Desktop
$ cd myfirstapp

javaTpoint@DESKTOP-1CCOODQ MINGW64 ~/Desktop/myfirstapp (master)
$ ng generate component server
CREATE src/app/server/server.component.html (21 bytes)
CREATE src/app/server/server.component.spec.ts (628 bytes)
CREATE src/app/server/server.component.ts (269 bytes)
CREATE src/app/server/server.component.css (0 bytes)
UPDATE src/app/app.module.ts (396 bytes)

javaTpoint@DESKTOP-1CCOODQ MINGW64 ~/Desktop/myfirstapp (master)
$
```

https://www.tutorialandexample.com/angular-8-components/

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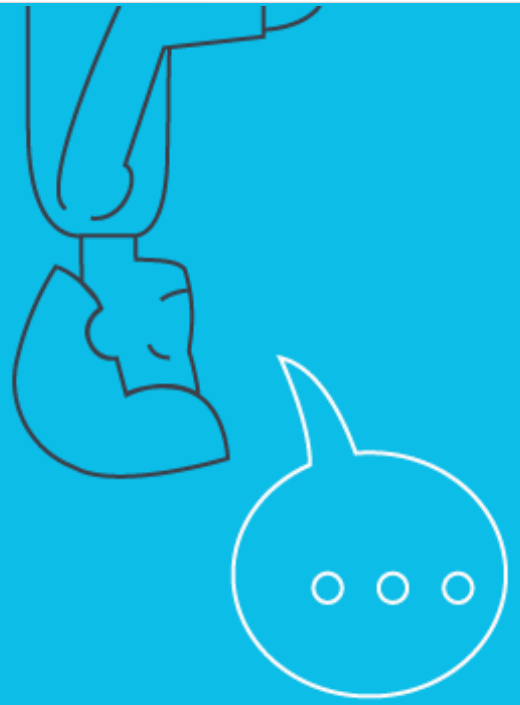
What is Angular CLI?



The Angular CLI is a command-line interface that is used to initialize, develop, and maintain Angular application.
The commands can be used on command prompt or Angular console

Angular CLI Commands

Angular CLI stands for Command Line Interface and some of the commands used in the development are:

COMMANDS	DESCRIPTON
add	It adds support for an external library to the project
config	It gives the Angular configuration values in the angular.json file of the workspace directory
e2e	It builds and serves the Angular app and runs the end-to-end test by using the protractor
generate	It generates the file based on a schedule
new	It creates a workspace
run	It runs the architecture target with an optional custom builder
update	It upgrades the application and also its dependencies

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CHECK POINT

The crucial aspect of Component is

1. Creating
2. Styling
3. Metadata
4. Re-usability

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CHECK POINT

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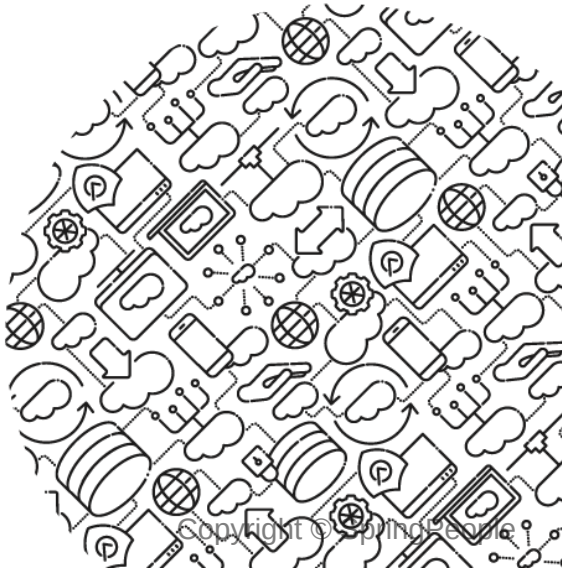
DOUBT'S

We wish you to take nothing except "Pure Learning." Leave the doubt's to us.



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LET'S SUMMARIZE

- Components are the basic building block for Angular
- The component makes the complex application in reusable parts that can be used easily
- components are used to develop webpages in all versions of Angular but modules are used to bundle them together
- The Angular CLI is a command-line interface that is used to initialize, develop, and maintain Angular application.

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THANK YOU

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