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Angular - Getting Started

Angular

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Angular

- Angular is a framework for building modern single-page applications

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www.angular.io

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Official docs
Tutorials

www.angular.io

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Angular Features

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Angular Features

- Component-based framework

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Angular Features

- Component-based framework
- Clean separation of template coding and application logic

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Angular Features

- Component-based framework
- Clean separation of template coding and application logic
- Built-in support for data-binding and dependency injection

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Angular Features

- Component-based framework
- Clean separation of template coding and application logic
- Built-in support for data-binding and dependency injection
- Supports responsive web design and modern frameworks

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Angular Features

- Component-based framework
- Clean separation of template coding and application logic
- Built-in support for data-binding and dependency injection
- Supports responsive web design and modern frameworks
  - Bootstrap, Google Material Design (Angular Material) and others …

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Angular Architecture

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Key Terms

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Term	Definition

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Term	Definition
Component	Main player in an Angular application. Has two parts: 1. View for user interface 2. Class that contains application logic / event handling for the view

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View Template	The user interface for the component Static HTML with dynamic elements

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Component	Main player in an Angular application. Has two parts: 1. View for user interface 2. Class that contains application logic / event handling for the view
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Directive	Adds custom behavior to HTML elements Used for looping, conditionals etc

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Component	Main player in an Angular application. Has two parts: 1. View for user interface 2. Class that contains application logic / event handling for the view
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Directive	Adds custom behavior to HTML elements Used for looping, conditionals etc
Service	Helper class that provides desired functionality Retrieving data from a server, performing a calculation, validation etc

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Component	Main player in an Angular application. Has two parts: 1. View for user interface 2. Class that contains application logic / event handling for the view
View Template	The user interface for the component Static HTML with dynamic elements
Directive	Adds custom behavior to HTML elements Used for looping, conditionals etc
Service	Helper class that provides desired functionality Retrieving data from a server, performing a calculation, validation etc
Module	A collection of related components, directives, services etc

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Application UI Composition

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Application Interaction

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Application Interaction

Angular Project

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Angular Project

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Angular Project

- An Angular project is composed of multiple files

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Angular Project

- An Angular project is composed of multiple files

HTML

HTML

HTML

HTML

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Angular Project

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HTML HTML

HTML HTML

TypeScript TypeScript

TypeScript TypeScript

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Angular Project

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Angular Project

- An Angular project is composed of multiple files

HTML HTML
HTML HTML

CSS CSS
CSS CSS

TypeScript TypeScript
TypeScript TypeScript

Config Config
Config Config

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Angular Project

- An Angular project is composed of multiple files

HTML
HTML
HTML
HTML

CSS
CSS
CSS
CSS

Images
Images
Others
...

TypeScript
TypeScript
TypeScript
TypeScript

Config
Config
Config
Config

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Creating an Angular Project

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Creating an Angular Project

- Angular provides a command-line tool to generate a project

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Creating an Angular Project

- Angular provides a command-line tool to generate a project
- Generates the starter files to help you bootstrap your project

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http://cli.angular.io

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Angular CLI

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Angular CLI

```
> npm install -g @angular/cli
```


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Angular CLI

```
> npm install -g @angular/cli
```

```
> ng version
```


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```
> npm install -g @angular/cli
```

```
> ng version
```

```
> ng help
```


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Creating New Project with Angular CLI

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Creating New Project with Angular CLI

```
> ng new <your-project-name>

> ng new my-first-angular-project
```


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Running the Angular App

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Running the Angular App

```
> cd <your-project-name>

> cd my-first-angular-project
```


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Running the Angular App

```
> cd <your-project-name>

> cd my-first-angular-project
```

```
> ng serve
```


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Running the Angular App

```
> cd <your-project

> cd my-first-angu
```

1. Builds the app (compile / transpile)
2. Starts the server
3. Watches the source files
4. Rebuilds the apps when source is updated (hot reload)

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> ng serve
```


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Running the Angular App

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```
> ng serve
```

By default listens on port 4200
http://localhost:4200

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Running the Angular App

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```
> ng serve
```

```
> ng serve --open
```


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1. Builds the app (compile / transpile)
2. Starts the server
3. Watches the source files
4. Rebuilds the apps when source is updated (hot reload)

```
> ng serve
```

```
> ng serve --open
```

Same as above ...
But also opens a web browser to
http://localhost:4200

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Changing the Server Port

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Changing the Server Port

```
> ng serve --port 5100
```


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Changing the Server Port

```
> ng serve --port 5100
```

Server listens on port 5100
http://localhost:5100

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Changing the Server Port

```
> ng serve --port 5100
```

Server listens on port 5100
http://localhost:5100

```
> ng serve --port 5100 --open
```


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Changing the Server Port

```
> ng serve --port 5100
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Server listens on port 5100
http://localhost:5100

```
> ng serve --port 5100 --open
```

Same as above ...
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http://localhost:5100

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Project Files

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Project Files

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Project Files

Angular workspace configuration
List of execution targets

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Project Files

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Project Files

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Project Files

Project meta data
List of node dependencies

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Profiles for environment:
dev, test, prod etc ...

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Add supports for different browser versions

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TypeScript compiler configs

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http://www.angular.io/guide/file-structure

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