

Example applications

The following is a list of the example applications in the [Angular documentation](#).

Fundamentals

These examples demonstrate minimal, fundamental concepts.

Getting started application

Introductory application demonstrating Angular features. For more information, see [Getting started](#).

Launching your app

Demonstrates the Angular bootstrapping process. For more information, see [Launching your app with a root module](#).

Structure of Angular applications

Demonstrates the fundamental architecture of Angular applications. For more information, see [Introduction to Angular concepts](#).

Setting the document title

Demonstrates customizing the document title in the browser. For more information, see [Set the document title](#).

Tour of Heroes tutorial application

The Tour of Heroes is a comprehensive tutorial that guides you through the process of building an application with many of Angular's most popular features.

Tour of Heroes: completed application

Completed Tour of Heroes example application. For more information, see [Tour of Heroes app and tutorial](#).

Tour of Heroes: Creating an application

Initial Tour of Heroes example application for beginning the tutorial. For more information, see [Create a new project](#).

Tour of Heroes: The hero editor

First step of the Tour of Heroes example application. For more information, see [The hero editor](#).

Tour of Heroes: Display a selection list

Second step of the Tour of Heroes example application. For more information, see [Display a selection list](#).

Tour of Heroes: Create a feature component

Third step of the Tour of Heroes example application. For more information, see [Create a feature component](#).

Tour of Heroes: Add services

Fourth step of the Tour of Heroes example application. For more information, see [Add services](#).

Tour of Heroes: Add in-app navigation with routing

Fifth step of the Tour of Heroes example application. For more information, see [Add in-app navigation with routing](#).

Tour of Heroes: Get data from a server

Sixth and final step of the Tour of Heroes example application. For more information, see [Get data from a server](#).

Working with templates

These examples demonstrate features of Angular templates.

Accessibility

Demonstrates building Angular applications in a more accessible way. For more information, see [Accessibility](#).

Animations

Demonstrates Angular's animation features. For more information, see [Introduction to Angular animations](#).

Attribute, class, and style bindings

Demonstrates Angular attribute, class, and style bindings. For more information, see [Attribute, class, and style bindings](#).

Attribute directives

Demonstrates Angular attribute directives. For more information, see [Attribute directives](#).

Binding syntax

Demonstrates Angular's binding syntax. For more information, see [Binding syntax: an overview](#).

Built-in directives

Demonstrates Angular built-in directives. For more information, see [Built-in directives](#).

Built-in template functions

Demonstrates Angular built-in template functions. For more information, see the [\\$any\(\) type cast function section](#) of [Template expression operators](#).

Content projection

Demonstrates how to use Angular's content projection feature when creating reusable components.

Interpolation

Demonstrates Angular interpolation. For more information, see [Interpolation and template expressions](#).

Template expression operators

Demonstrates expression operators in Angular templates. For more information, see [Template expression operators](#).

Template reference variables

Demonstrates Angular's template reference variables. For more information, see [Template reference variables](#).

```
<ngcontainer>
```

Demonstrates `<ngcontainer>` . For more information, see the [ng-container section](#) of [Built-in directives](#) .

Pipes

Demonstrates Angular pipes. For more information, see [Transforming Data Using Pipes](#).

Property binding

Demonstrates property binding in Angular. For more information, see [Property binding](#).

Structural directives

Demonstrates Angular structural directives. For more information, see [Structural directives](#).

Two-way binding

Demonstrates two-way data binding in Angular applications. For more information, see [Two-way binding](#).

Template syntax

Comprehensive demonstration of Angular's template syntax. For more information, see [Template reference variables](#).

User input

Demonstrates responding to user actions. For more information, see [User input](#).

Working with components

These examples demonstrate features of Angular components.

Component interaction

Demonstrates how Angular shares data between components. For more information, see [Component interaction](#).

Component styles

Demonstrates styling in Angular applications. For more information, see [Component styles](#).

Dynamic component loader

Demonstrates how to dynamically load components. For more information, see [Dynamic component loader](#).

Elements

Demonstrates using Angular custom elements. For more information, see [Angular elements overview](#).

Event binding

Demonstrates binding to events in Angular. For more information, see [Event binding](#).

`@Input()` and `@Output()`

Demonstrates `@Input()` and `@Output()` in components and directives. For more information, see [@Input\(\)](#) and [@Output\(\)](#) properties.

Lifecycle hooks

Demonstrates Angular lifecycle hooks such as `ngOnInit()` and `ngOnChanges()`. For more information, see [Hooking into the component lifecycle](#).

Dependency injection

Dependency injection fundamentals

Demonstrates fundamentals of Angular dependency injection. For more information, see [Dependency injection](#).

Dependency injection features

Demonstrates many of the features of Angular dependency injection. For more information, see [Dependency injection in action](#).

Providing dependencies in NgModules

Demonstrates providing services in NgModules. For more information, see [Providing dependencies in modules](#).

Hierarchical dependency injection

Demonstrates Angular injector trees and resolution modifiers. For more information, see [Hierarchical injectors](#).

Dependency injection with `providers` and `viewProviders`

Demonstrates how `providers` and `viewProviders` affect dependency injection. For more information, see the [Providing services in @Component\(\)](#) section of [Hierarchical injectors](#).

Resolution modifiers and dependency injection

Demonstrates Angular's resolution modifiers, such as `@Self()`. For more information, see the [Modifying service visibility](#) section of [Hierarchical injectors](#).

Forms

Forms overview

Demonstrates foundational concepts of Angular forms. For more information, see [Introduction to forms in Angular](#).

Reactive forms

Demonstrates Angular's reactive forms. For more information, see [Reactive forms](#).

Template-driven forms

Demonstrates Angular template-driven forms. For more information, see [Building a template-driven form](#).

Form validation

Demonstrates validating forms in Angular. For more information, see [Validating form input](#).

Dynamic forms

Demonstrates creating dynamic forms. For more information, see [Building dynamic forms](#).

NgModules

NgModules

Demonstrates fundamentals of NgModules. For more information, see [NgModules](#).

Feature modules

Demonstrates using feature modules in Angular. For more information, see [Feature modules](#).

Lazy loading NgModules

Demonstrates lazy loading NgModules. For more information, see [Lazy-loading feature modules](#).

Routing

Router

Demonstrates Angular's routing features. For more information, see [Router](#).

Router tutorial

Demonstrates Angular's fundamental routing techniques. For more information, see [Using Angular routes in a single-page application](#).

Documentation

Style guide for Documentation contributions

Demonstrates Angular documentation style guidelines. For more information, see [Angular documentation style guide](#).

Server communication

`HttpClient`

Demonstrates server interaction using HTTP. For more information, see [Communicating with backend services using HTTP](#).

Workflow

Security

Demonstrates security concepts in Angular applications. For more information, see [Security](#).

Testing

For the sample application that the testing guides describe, see the sample app.

Demonstrates techniques for testing Angular. For more information, see [Testing](#).

Hybrid Angular applications

AngularJS to Angular concepts: Quick reference

Demonstrates Angular for those with an AngularJS background. For more information, see [AngularJS to Angular concepts: Quick reference](#).