This cheat sheet is for the course <u>Learn C# Full Stack Development with Angular and ASP.NET</u> by Jannick Leismann.

# **ANGULAR**



A popular framework for creating single-page web applications (SPAs). Angular, a web application development framework created and maintained by **Google**, offers an extensive toolkit and best practices for creating online applications that are scalable, durable, and manageable.

# **Key Features of Angular**

## **Component-Based Architecture**

Angular applications are built using a collection of components. Each component encapsulates its own logic, template, and styles, promoting reusability and maintainability.

#### **TypeScript**

Angular is built with TypeScript, a statically-typed superset of JavaScript, which enhances development with strong typing, interfaces, and advanced features.

#### **Two-Way Data Binding**

Synchronizes data between the model and the view, allowing for automatic updates in the UI when the model changes and vice versa.

## **Dependency Injection**

Angular has a powerful dependency injection system that facilitates the development of modular, testable, and maintainable code.

#### Directives

Custom HTML attributes that extend the functionality of HTML elements. Examples include structural directives (\*ngIf, \*ngFor) and attribute directives (ngClass, ngStyle).

# **Services and DI (Dependency Injection)**

Services are used to share data and logic across multiple components. Angular's DI system makes it easy to inject services into components and other services.

## Routing

Angular provides a robust routing module that allows developers to define routes and navigate between different views or components in a single-page application.

## **Reactive Programming with RxJS**

Angular leverages RxJS (Reactive Extensions for JavaScript) for reactive programming, enabling the development of asynchronous, event-driven applications.

## Forms

Angular offers two ways to handle forms: Template-driven forms and Reactive forms. Both approaches provide robust form validation and data binding.

## **CLI (Command Line Interface)**

Angular CLI is a powerful tool that simplifies the process of setting up, developing, testing, and deploying Angular applications.