

# From Zero to Angular

Angular has proven to be one of the best JavaScript frameworks on the market today. Angular is great for single-page applications (SPA) and for business applications. In this course, you learn the basics of Angular through building a CRUD page. You will put together many services that you can reuse in many of your Angular applications. Exception, configuration, logging and message handling are topics you are going to learn. By the time you are done, you will have built a standard CRUD page, and a couple of other business pages. In this course you use Visual Studio Code, the latest version of Angular, Angular CLI, Bootstrap, C#, Web API, and .NET Core to build the samples.

## Learning Objectives

Learn Angular

Learn to call Web API methods for data retrieval and modification

Learn to secure your application

Deploy your Angular application

## Prerequisites

You should be familiar with HTML, CSS, JavaScript, and are familiar with object-oriented programming.

## Course Length

4 days

## Module 1: Basics of Angular

Introduction to Angular

Machine Setup

Angular CLI and VS Code

Basics of Binding

Build a List Component

- Add Bootstrap
- Classes and Mocks
- Pipes and Custom Styles
- Nested Components (@Input and @Output)
- Create a Service
- Introduction to Observables

## Module 2: Navigation and Routing

- Navigation and Routing Basics
- Passing Parameters
- CanActivate Guard
- CanDeactivate Guard

## Module 3: Calling Web API Methods

- Build ASP.NET Core Web API Project
- Stub the Product Controller
- Add Entity Framework and Get All Products
- Get a Single Product
- Information Message Handling
- Exception Handling
- Insert Data using POST
- Update Data using PUT
- Delete Data Using DELETE
- Search for Products

## Module 4: Client and Server-side Validation

- Handling Server-Side Validation Messages

Client-Side Validation  
Custom Validators

## Module 5: Organizing your Code with Modules

Create Shared and Core Modules  
Feature Modules  
Lazy Loading Modules  
Create Category List Page

## Module 6: Configuration Management System

Create a Configuration Service  
Read Config Settings from a JSON File  
Read/Store Config Settings in Local Storage  
Read Settings from Web API

## Module 7: A Logging System

Create a Logging Service  
Log Publisher  
Logging to Local Storage  
Logging to Web API  
Data-Driven Logging Configuration

## Module 8: Securing your Application

Authentication

Authorization

Web API for Authentication and Authorization

Securing the Web API with JSON Web Tokens

Claims-Based Authorization

## **Module 9: Deploying your Application**

Deploy Angular to IIS

Deploy Core Web API to IIS