

# ANGULAR 7 BOOTCAMP

Includes Introduction to Angular Material, Firebase-based authentication, and NgRx

## OVERVIEW

3 days

8 hours/day

Google's Angular framework, is a much sought-after skill in the industry today. The Angular 7 Bootcamp gets you prepared for building enterprise-grade applications using Angular 7.

## PREREQUISITES

- HTML, CSS and JavaScript knowledge
- Very basic algorithms and data structures knowledge (traversing and using arrays, using objects in JavaScript)

**NOTE:** Knowledge of Angular JS (Angular v1.x) or Angular 2/4/5/6 is **NOT** required.

## CAPSTONE PROJECT

At the end of this bootcamp, participants will build a blogging application using Angular. A backend server shall be provided. The app will list blog articles, allow authenticated users to post articles, and also edit/delete articles they posted.

# CHAPTERS AND TOPICS

## Pre-requisites

Introduction to ES6

Basics of TypeScript

Reactive Extensions for JavaScript (RxJS) – Basics of Observables and observers

Basics of Angular Material

## Introduction to Angular

Installation - Gearing up for Angular application development

Scaffolding an Angular application using the Angular CLI

Understanding the Project Structure

Understanding the Build Process and How and Angular Application Bootstraps

Basics of the Angular CLI

## Components

Introduction to the Sample Application – Product Cataloging Application

Creating Components

Using \*ngIf, \*ngFor, ngStyle, ngClass

Component Lifecycle Hooks

## Data Binding

Binding Events

Binding to Properties and Attributes

2-way Data Binding

## Pipes

Transforming Data with Pipes

The Built-in Pipes

Creating Custom Pipes

Sorting and Filtering using Pipes

## **Communication Between Components**

Communication Patterns

The @Input and @Output Decorators

Change Detection

## **Routing**

Routing Concepts in a Single Page Application

Configuring Routes

Passing Parameters to a Route and Retrieving them

Route Guards – using canActivate

Authentication – Handling login and logout

Authenticating using Firebase

## **Modules**

Organizing features of an Application the Application - Defining Feature Modules

Shared Modules

## **Services and Dependency Injection**

Injectors and providers

Building and Registering a Service

Injecting the Http Service

Communicating with the backend using Http

## **Introduction to NgRx**

What is NgRx?

Introduction to Redux components and its flow

Integrating Redux store into an app

## **Angular Forms**

Template-driven and Reactive Forms

Form-related Classes

Validating Template-driven Forms

## More About the Angular CLI (with various options and configurations)

ng new

ng serve

ng generate

ng build

AOT Compilation and Enabling Production Mode