

**Angular Architecture and Best Practices**

**Course Number:** ANG-176  
**Duration:** 4 days

**Overview**

This Angular Architecture and Best Practices training course teaches attendees how to build a robust and scalable Angular architecture that is easy to refactor and maintain. Students also learn component communication techniques, state management, code organization, general best practices, performance considerations, and more.

**Prerequisites**

All Angular training students must have existing knowledge of Angular and TypeScript.

**Materials**

All attendees receive comprehensive courseware.

**Software Needed on Each Student PC**

* Google Chrome
* Other modern browsers as desired
* IDE/development environment of your choice
* Other free software and lab files that Accelebrate would specify

**Objectives**

* Organize features and modules
* Properly structure components
* Facilitate component communication
* Manage state in Angular applications

**Outline**

* Introduction
* Planning the Application Architecture
  + Architecture Considerations
  + Architecture Planning Template
  + The Angular Style Guide
* Organizing Features and Modules
  + Organizing Features and Modules
  + Core and Shared Modules
  + Preventing Reimport of Core
  + Reviewing Module Organization
  + Custom Libraries
* Structuring Components
  + Container and Presentation Components
  + Passing State with Input and Output Properties
  + Change Detection Strategies
  + ngOnChanges: Reference vs. Value
  + Cloning Techniques
  + Component Inheritance
* Component Communication
  + Component Communication Techniques
  + RxJS Subjects
  + Creating an Event Bus Service
  + Creating an Observable Service
  + Unsubscribing from Observables
* State Management
  + The Need for State Management
  + State Management Options
  + Using Services
  + Using NgRx
  + Using ngrx-data
  + Using Observable Store
  + Reviewing State Management Options
* Additional Considerations
  + Interfaces, Classes, and Enums
  + Functions versus Pipes
  + Adding a Memo Decorator
  + HttpClient and RxJS Operators
  + Using Interceptors
* Conclusion