

ANGULAR TRAINING COURSE

Build Modern, High-Performance Web Applications in 40 Hours

A comprehensive, hands-on Angular course covering everything from your first Angular application through to production deployment and performance optimisation. Developed for intermediate-level developers, this course takes you deep into the Angular framework — components, routing, forms, reactive programming with RxJS, the Signals API, HTTP communication, Angular Material, unit testing, and real-world deployment strategies. Code College has been training developers since 2004, trusted by thousands of graduates across South Africa and globally.

Duration	40 hours (5-day intensive or part-time)
Format	Hands-on, project-driven instruction
Level	Intermediate (prior programming experience required)
Topics	15 topics across 5 domains
Prerequisites	Completed a beginner programming course or equivalent
Price	R14,995

Course Overview

The Angular Training Course is a structured, project-driven programme that takes intermediate developers from Angular fundamentals through to production-ready applications. You'll start by setting up the Angular CLI and writing TypeScript, then progressively build skills in components, services, reactive programming with RxJS and Signals, routing, forms, HTTP communication, Angular Material UI, unit testing, and deployment. By the end of the course you will be able to architect, build, test, and ship a fully functional Angular application.

5 Course Domains

Domain	Topic	Hours	Focus
1	Foundations	8	Angular CLI, TypeScript, development environment setup
2	Core Angular	8	Components, templates, pipes, directives, services, DI
3	Reactivity & State	8	RxJS observables, Signals API, HTTP & CRUD operations
4	Application Architecture	8	Routing, lazy loading, forms, validation, error handling
5	Production & Quality	8	Angular Material, unit testing, deployment, performance

What You'll Master

Angular Fundamentals & TypeScript

- Set up and use the Angular CLI and Visual Studio Code tooling
- Write TypeScript — types, interfaces, classes, generics, and advanced features
- Understand Angular application architecture and module system
- Use schematics to automate code generation and project tasks

Components, Templates & Directives

- Build and configure components using decorators
- Pass data between components using input and output bindings
- Apply change detection strategies for optimal performance
- Create and use custom pipes and directives
- Execute custom logic during the component lifecycle

Services, Dependency Injection & HTTP

- Understand and apply Angular's dependency injection mechanism
- Create and provide services within an Angular application
- Perform CRUD operations against a remote REST API using HttpClient
- Set custom headers and intercept HTTP requests and responses

Reactive Programming — RxJS & Signals

- Understand reactive programming concepts and observables
- Apply common RxJS operators used in real Angular applications
- Use the Signals API to track and manage application state
- Integrate Signals with RxJS for interoperability in a single application

Routing, Forms & Error Handling

- Configure the Angular router and activate application routes
- Pass parameters through the URL and implement child routes
- Implement lazy loading for optimised code splitting
- Guard routes and pre-fetch data before component initialisation
- Build template-driven and reactive forms with validation
- Handle framework and application errors gracefully

Angular Material, Testing & Production

- Integrate Angular Material to apply Google Material Design
- Use core Angular Material components and theming
- Write unit tests for Angular components, services, and pipes
- Build and deploy an Angular application using the CLI
- Pass environment variables and apply build optimisations
- Improve Core Web Vitals with SSR, hydration, and image optimisation

Complete Curriculum

40 hours of hands-on instruction across 15 topics, grouped into 5 domains. Every topic is taught with practical examples, live coding, and exercises.

Domain 1: Foundations (8 hours)

- **Building Your First Angular Application**

Set up the Angular CLI, explore VS Code tooling, use schematics to generate and build a new Angular application from scratch.

- **Introduction to TypeScript**

Learn types, classes, interfaces, enums, generics, and the latest TypeScript features used throughout Angular development.

Domain 2: Core Angular (8 hours)

- **Structuring User Interfaces with Components**

Configure components with decorators, pass data via input/output bindings, choose change detection strategies, and hook into the component lifecycle.

- **Enriching Applications Using Pipes and Directives**

Use Angular's built-in pipes, build custom pipes, create structural and attribute directives, and apply them across an application.

- **Managing Complex Tasks with Services**

Understand dependency injection, create and consume services in components, and configure providers within an Angular application.

Domain 3: Reactivity & State (8 hours)

- **Reactive Patterns in Angular**

Learn reactive programming, work with RxJS observables and subjects, and apply the common RxJS operators used in Angular applications.

- **Tracking Application State with Signals**

Explore the Signals API concepts and rationale, use signals to track state, and integrate signals with RxJS in a sample application.

- **Communicating with Data Services over HTTP**

Interact with a remote backend API, perform CRUD operations, set custom request headers, and intercept HTTP requests and responses.

Domain 4: Application Architecture (8 hours)

- **Navigating through Applications with Routing**

Configure the Angular router, pass URL parameters, implement child routes with lazy loading, guard routes, and pre-fetch data before navigation.

- **Collecting User Data with Forms**

Build template-driven and reactive forms using FormGroup and FormControl, track user interaction, and validate input fields.

- **Handling Application Errors**

Handle HTTP errors, runtime errors, and Angular framework errors gracefully across the entire application.

Domain 5: Production & Quality (8 hours)

- **Introduction to Angular Material**

Integrate Angular Material into an Angular application, use core components, and apply and customise the bundled Material themes.

- **Unit Testing Angular Applications**

Test Angular components, services, and pipes; override dependencies in tests; and understand which parts of a component to test and why.

- **Bringing Applications to Production**

Use the Angular CLI to build and deploy, pass environment variables at build time, and apply pre-deployment build optimisations.

- **Optimizing Application Performance**

Understand Core Web Vitals, render applications server-side, leverage hydration, and optimise images for improved CWV metrics.

Course Specifications

Aspect	Details
Total Duration	40 hours (5-day intensive or 2-4 weeks part-time)
Format	Hands-on, project-driven classroom instruction
Learning Locations	Johannesburg (Hybrid: in-person + online) or Live Online (Global)
Prerequisites	Completed a beginner programming course or equivalent experience
Technical Requirements	Laptop 8GB+ RAM, Node.js LTS, Angular CLI, VS Code, stable internet
Pricing	R14,995
Certification	Attendance certificate upon 80%+ attendance and completed classwork
Topics	15 topics across 5 domains — all covered in 40 hours

What's Included

- 40 hours of expert instruction covering all 15 topics
- Hands-on exercises and project work throughout the course
- Comprehensive course notes and reference materials
- Live coding demonstrations for every major concept
- Instructor office hours and peer study group access
- Lifetime access to course materials and resources

Career Benefits & Opportunities

- **High Demand** — Angular developers are among the most sought-after frontend engineers
- **Enterprise Ready** — Angular is the framework of choice for large-scale, enterprise web apps
- **Full-Stack Synergy** — Pairs naturally with any backend: Node, Java, .NET, Python
- **Google-Backed** — Maintained by Google with long-term support and a strong release cadence
- **Competitive Salary** — Angular expertise commands higher salaries in the South African market
- **Global Opportunities** — Angular skills transfer directly to international remote positions
- **Portfolio Projects** — Leave the course with a fully functional Angular application

Code College's Track Record

Code College has been training developers since 2004, with thousands of graduates working across South Africa and internationally. Our hands-on, instructor-led approach ensures you leave with practical skills you can apply immediately. We maintain small class sizes for personalised attention and a learning environment that encourages questions, collaboration, and real-world problem solving.

Ready to Build with Angular?

The Angular Training Course gives you everything you need to go from intermediate developer to confident Angular engineer in just 40 hours. Contact Code College today to register or to find out when the next course starts.

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Website	www.codecollege.co.za
Locations	Johannesburg (Hybrid) Live Online (Global)

Visit our website or contact us directly to secure your place on the next course!