

Angular 14 Course

Course Duration: 40 Hours

Course Code: ANG14

1. Course Overview

The **Angular 14 Course** provides in-depth training on building modern, scalable, and dynamic web applications using Angular 14. This course covers the latest features, architecture, and best practices in Angular, including TypeScript, data binding, directives, dependency injection, reactive forms, routing, and integration with REST APIs. Participants will gain hands-on experience developing enterprise-grade web applications with optimized performance and maintainability.

2. What You'll Learn?

- Fundamentals of **Angular 14 architecture and components**
- **TypeScript essentials** for Angular development
- Data binding, directives, and dependency injection
- **Angular Forms** – template-driven and reactive forms
- Implementing **Routing and Navigation**
- **HTTP Client** for REST API integration
- Angular **modules, services, and lifecycle hooks**
- State management using **RxJS and Observables**
- Building **responsive UI with Angular Material**
- Best practices for **performance optimization** and deployment

3. Target Audience

- Frontend developers who want to master Angular 14
- Web developers aiming to upgrade skills in modern frameworks
- Software engineers working on enterprise-level applications
- Beginners with JavaScript knowledge looking to enter full-stack development

4. Pre-Requisites

- Basic understanding of **HTML, CSS, and JavaScript**
- Familiarity with **TypeScript** (optional but recommended)
- Prior knowledge of any frontend framework is helpful but not mandatory

5. Course Content

Module 1: Introduction to Angular 14

- Overview of Angular framework
- Angular 14 new features
- Setting up development environment

Module 2: TypeScript and Angular Fundamentals

- TypeScript basics for Angular
- Components and templates
- Data binding and directives

Module 3: Angular Forms

- Template-driven forms

- Reactive forms
- Form validation techniques

Module 4: Routing and Navigation

- Configuring routes
- Nested and parameterized routes
- Lazy loading modules

Module 5: HTTP Client and REST APIs

- Making HTTP requests
- Consuming REST APIs
- Error handling and interceptors

Module 6: State Management with RxJS

- Observables and subjects
- Operators in RxJS
- Managing async data streams

Module 7: UI Development with Angular Material

- Material components and themes
- Responsive design techniques
- Customizing UI

Module 8: Advanced Angular Concepts

- Dependency injection in depth
- Lifecycle hooks
- Change detection strategies

Module 9: Testing and Debugging

- Unit testing with Jasmine and Karma
- Debugging Angular apps

- End-to-end testing with Protractor

Module 10: Deployment and Best Practices

- Building and optimizing Angular apps
- Deploying to production
- Performance tuning and scalability

