

Angular Training

Topics : [Courses](#)

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Module 1: Introduction to Angular

- What is Angular?
- Angular vs. Other Front-End Frameworks
- Setting Up the Development Environment
- Installing Angular CLI
- Creating an Angular Project (ng new project-name)
- Understanding Angular Project Structure

Module 2: TypeScript Basics for Angular

- Introduction to TypeScript
- Variables and Data Types
- Functions and Arrow Functions
- Interfaces and Classes
- Modules and Namespaces
- TypeScript Decorators

Module 3: Angular Components & Templates

- What are Components?
- Creating Components (ng generate component component-name)
- Component Lifecycle Hooks (ngOnInit, ngOnDestroy, etc.)
- Interpolation and Property Binding
- Event Binding ((click), (input), etc.)
- Two-Way Data Binding with ngModel

Module 4: Directives and Pipes

- Structural Directives (*ngIf, *ngFor, *ngSwitch)
- Attribute Directives ([ngClass], [ngStyle])
- Custom Directives
- Pipes for Data Transformation (uppercase, date, currency)
- Creating Custom Pipes

Module 5: Angular Forms

Template-Driven Forms

- FormsModule and ngForm
- Form Validation (required, minLength, pattern)

Reactive Forms

- FormGroup and FormControl
- Form Validation with Reactive Forms
- Custom Validators

Module 6: Angular Routing and Navigation

- Setting Up Routing in Angular (RouterModule)
- Route Parameters and Query Parameters
- Lazy Loading Modules
- Route Guards (CanActivate, CanDeactivate)

Module 7: Angular Services & Dependency Injection

- What are Angular Services?
- Creating a Service (ng generate service service-name)
- Dependency Injection in Angular
- Using Services for Data Sharing

Module 8: HTTP Client & API Integration

- Using HttpClientModule
- Making GET, POST, PUT, DELETE Requests
- Handling API Responses and Errors
- Using Observables with RxJS (subscribe, map, catchError)

Module 9: State Management in Angular

- Introduction to State Management
- Using Services for State Management
- Introduction to NgRx (Redux Pattern for Angular)
- Actions, Reducers, and Effects in NgRx

Module 10: Authentication & Authorization

- User Authentication with JWT
- Using `HttpInterceptor` for Token Handling
- Role-Based Authentication
- Implementing Login and Logout Functionality

Module 11: Deployment & Final Project

- Building and Optimizing an Angular App (`ng build --prod`)
- Deploying Angular Apps on Firebase, Netlify, or Vercel
- Final Project: Creating a Full-Stack Angular Application