

Angular JS



Zetlan Technologies



**e-Learning
Course**

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COURSE MODULES

Module 1: Introduction to AngularJS

- What is AngularJS?
- Features and Benefits of AngularJS
- MVC Architecture in AngularJS
- Setting Up the Development Environment
- First AngularJS Application

Module 2: AngularJS Fundamentals

- Understanding Directives
- Expressions and Interpolation
- Controllers and Scope
- Data Binding (One-way and Two-way)
- Filters and Built-in Filters

Module 3: Working with Directives

- Built-in Directives (ng-app, ng-model, ng-init, ng-repeat, ng-if, etc.)
- Custom Directives
- Restricting Directives (E, A, C, M)
- Directive Communication (Isolate Scope, Transclusion)

Module 4: Controllers and Scope

- Role of Controllers
- \$scope Object
- Nested Controllers
- Using Services inside Controllers
- Best Practices for Controllers

Module 5: AngularJS Modules and Dependency Injection

- Creating and Managing Modules
- Understanding Dependency Injection (DI)
- Registering Services, Factories, and Providers

Module 6: Forms and Validations

- Form Controls and ng-model
- Input Validations (Required, Min/Max Length, Patterns)
- Custom Form Validations
- Error Handling in Forms

Module 7: Working with Services and Factories

- Introduction to Services in AngularJS
- Built-in Services (\$http, \$timeout, \$interval, etc.)
- Creating Custom Services
- Using Factories vs. Services vs. Providers

Module 8: HTTP Communication & REST API Integration

- \$http Service for AJAX Calls
- Making GET, POST, PUT, DELETE Requests
- Handling Responses and Errors
- Interceptors and Authentication Handling

Module 9: Routing and Single Page Applications (SPA)

- Introduction to ngRoute and UI-Router
- Configuring Routes and Nested Routes
- Route Parameters and Route Guards
- Lazy Loading Modules

Module 10: Filters and Pipes

- Built-in Filters (currency, date, uppercase, lowercase, etc.)
- Creating Custom Filters
- Using Filters in Controllers and Directives

Module 11: Event Handling and Scope Hierarchy

- Handling Events using ng-click, ng-change, ng-keyup, etc.
- Event Propagation and \$broadcast, \$emit, \$on
- Scope Inheritance and Digest Cycle

Module 12: Working with AngularJS Animations

- Introduction to AngularJS Animations
- Using CSS and JavaScript Animations
- ngAnimate Module
- Animating Lists and Views

Module 13: Error Handling & Debugging

- Debugging AngularJS Applications
- Handling Errors Gracefully
- Using \$log and Console Debugging

Module 14: Testing in AngularJS

- Introduction to Unit Testing in AngularJS
- Writing Tests with Jasmine & Karma
- End-to-End Testing with Protractor

Module 15: Performance Optimization and Best Practices

- Optimizing Digest Cycle
- Lazy Loading and Minification
- Best Practices for Scalable AngularJS Applications

Module 16: Migrating from AngularJS to Angular (Optional)

- Key Differences Between AngularJS and Angular
- Migration Strategies and Tools
- Upgrading Using Angular Upgrade Module

Project & Hands-on

- Develop a real-world AngularJS application
- Implement routing, form validation, and API integration
- Deploy the application