



Beginner Frontend Development with Angular

Description:

This course introduces students to modern frontend development using **Angular**, a powerful framework for building responsive, scalable web applications. Students will explore core Angular concepts such as components, modules, templates, services, routing, and reactive forms. By the end of the course, learners will build and deploy a fully functional Angular application following best practices.

Learning Outcomes:

By the end of this course, students will:

- Understand Angular's architecture, component-based structure, and TypeScript foundations.
- Build reusable components and manage component interaction effectively.
- Use Angular's routing to create multi-page Single Page Applications (SPAs).
- Handle forms using Template-Driven and Reactive Forms.
- Interact with REST APIs using Angular's HTTPClient.
- Implement state management patterns for predictable UI behavior.
- Deploy a production-ready Angular application.

Course Duration:

- **Total Duration:** 6 Weeks
 - **Sessions per Week:** 2 sessions
 - **Session Duration:** 1.5 hours each
 - **Total Contact Hours:** 18 hours (plus optional assignments and practice)
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6-Week Course Plan:

Week 1: Introduction to Angular & TypeScript

Topics Covered:

- Setting up Angular CLI
- Introduction to TypeScript (interfaces, classes, types)
- Angular project structure
- Creating and using components

Deliverables:

- First Angular app running locally
 - Header/footer component setup
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Week 2: Templates, Data Binding & Directives

Topics Covered:

- Interpolation, Property & Event Binding
- ngIf, ngFor, ngSwitch directives
- Component communication: Input & Output

- Pipes and custom pipes

Deliverables:

- Component-based layout with dynamic data
 - Pipes for formatting display
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Week 3: Services & Dependency Injection

Topics Covered:

- Creating Angular services
- Injecting services into components
- Lifecycle hooks overview

Deliverables:

- Basic data service injected into multiple components
 - Refactored logic using services
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Week 4: Routing & Navigation

Topics Covered:

- Angular Router basics
- Navigation between pages
- Route parameters and guards
- Lazy loading modules

Deliverables:

- Multi-page app using routing
- Dynamic route-based navigation

Week 5: Forms & API Integration

Topics Covered:

- Template-driven vs Reactive Forms
- Form validation and controls
- HTTPClient for API requests
- Observables and RxJS basics

Deliverables:

- Form with validation and submission
 - App that fetches and displays API data
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Week 6: Final Project & Deployment

Topics Covered:

- Planning and building a complete app
- Optimization tips (Ahead-of-Time compilation, lazy loading)
- Deploying Angular app using Firebase Hosting, Netlify, or Vercel

Deliverables:

- Fully functional Angular app (e.g., blog, task manager, store)
- App deployed live with GitHub source
- Final walkthrough and code review

Final Deliverables:

- A fully deployed Angular application
 - A clean, modular, production-ready codebase
 - GitHub repository for portfolio/demo purposes
 - CodeHills Certificate of Completion
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Course Fees (Pakistan):

- **Standard Fee:** PKR 10,000