

Week 1-2: HTML and CSS

HTML (Week 1):

- Elements, Attributes, Document Structure
- Semantic HTML: Header, Footer, Nav, Section, Article, etc.
- Forms and Input Elements

CSS (Week 2):

- CSS Box Model: Margins, Padding, Borders
- Selectors, Specificity, and Cascade
- CSS Layouts: Flexbox, Grid, Floats
- CSS Transitions and Animations
- Responsive Web Design with Media Queries

Week 3-4: JavaScript and TypeScript Basics

JavaScript (Week 3):

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- Variables and Data Types
- Control Structures: Conditionals and Loops
- Functions, Scope, Closures, Arrow functions, map function
- Working with Arrays and Objects, JS Async
- Features in ES6
- Error Handling and Debugging

TypeScript (Week 4):

- TypeScript Syntax and Basics
- TypeScript Types: Primitive, Object, Union, Any, Void
- Interfaces and Type Aliases
- Functions, Classes, Inheritance
- Advanced TypeScript Features: Generics, Decorators

Week 5: Source control using GIT and Assignment Project (HTML, CSS, JavaScript, Typescript)

Building a web page layout using HTML, styling it with CSS, and adding interactivity using JavaScript/typescript:

- Creating a responsive webpage layout
- Implementing navigation menus, forms, and interactive elements
- Applying styles, animations, and transitions
- JavaScript functionalities for form validation or interactive components

Week 6-11: Angular Framework

Week 6-7: Angular Basics:

- Angular Architecture: Modules, Components, Directives, Services
- Data Binding: Property, Event, Two-way Binding
- Communication within components
- Template Syntax and Structural Directives
- Using SCSS in angular components

Week 8-9: Angular Advanced Topics:

- Angular Routing and Navigation
- Forms and Reactive Forms in Angular
- Dependency Injection and Services

Week 10-11: Advanced Angular Concepts:

- HTTP Client and API Integration
- Observables and RxJS in Angular
- Angular Best Practices and Performance Optimization

Week 12: Assignment Project on Angular

A comprehensive Angular project focusing on:

- Multi-component architecture and routing
- CRUD operations with HTTP requests and data handling
- Form validation and reactive form usage
- Implementation of services, observables, and best practices in Angular development