

Module: Angular - web development

The objective of this training is to learn how to develop an Angular web application. In particular, you will be able to: understand the architecture of Angular, manage data and routing, build forms and deploy your application.

Prerequisites : HTML5 and CSS, Javascript programming.



Ways to take this course: Online Instructor Led
Online self-paced
Video On Demand

Video conference tool: ZOOM

Duration: 21 H (3 days)

Dependency Injection

DI and Angular. Annotations and injection
Hierarchical injectors
Choose your injector in the components
Creating and injecting services. Mock

Reactive Programming, HTTP

The HTTP Service
The ReactiveX standard, RxJS
Observable type, subscribe() method
Available Operators
Front-end reactive programming
Interact with the back-end
Object Mapping, Interceptors
CORS Management. CRUD Features

OUTLINE

Introduction

Angular framework
Highlights of Angular
Angular vs. ReactJS vs. VueJS
Versioning policy
Contribution of the latest versions

Javascript and Typescript

Variables, Loops, Arrays, Functions
Classes and modules (ES6). Instantiation
Arrow functions (ES6)
String Interpolation
TypeScript: Types and Annotations
Transpilation, type inference
Interfaces, classes, visibility
Decorators

Getting started with Angular

Install: npm and Nodejs
install Angular, TypeScript
Architecture of an Angular application
Angular-CLI: main commands
Angular modules and components
Create an Angular project
Start the server. Testing a simple code
Tools: LiveReload, Chrome Debugger

The component approach

Angular components, tree
Shadow Dom and templates
How to declare a component
Decorators, views, model
Templates: interpolate, pipes, local variables
Templates: Property and event bindings
Input/output with components
Component styling: CSS selector :host
Using directives
Typescript development of models
Managing the onClick

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Angular Routing

- Routes, redirecting
- Browsing parameters
- Hierarchical Routing
- Guards and resolver
- Routing Events
- Navigating with Angular
- Create a detail component
- Navigation list / detail
- Routes and security

Angular Forms

- The ngModel directive
- FormsModule, FormBuilder
- The FormGroup and FormControl types
- Design and validate forms
- Data validation, validators
- Dynamic validation
- Error handling
- Submission Management

Internationalization

- Localization
- Multi-lingual app
- Templating Syntax
- Label files

Deployment

- Application profiling
- Manage different environments
- Assembly for deployment
- Configure the server
- Reload management
- How to deploy
- Configure NodeJs

Implement tests

- Unit testing with Angular
- Karma test engine and Jasmine framework
- Write a component, service test
- Isolation of the code to be tested
- End to End Testing with Cypress
- Run the tests