

AngularJS and Single Page Applications (code: ANGULARJS)

Overview

AngularJS has achieved tremendous – and unsurprising – success during the last couple of years. It perfectly fits the needs of modern web applications, as the majority of them consist of two distinct modules:

- JavaScript-based front-end that uses HTML5 and communicated with the back-end through REST services
- back-end that serves as a pure data source for the front-end – often simply a CRUD server and authentication-authorization layer.

This training - *AngularJS and Single Page Applications* is focused on the first part: **an effective browser-side application written in JavaScript**.

Like other landmark frameworks and libraries (such as *Ruby on Rails* and JavaScript's own *JQuery*), *AngularJS* introduces its own programming philosophy. To learn *AngularJS*, you need to learn more than just the library's syntax and services. You need to master the idea behind it, the library's idioms and best practices – and how to avoid the pitfalls that await inexperienced *AngularJS* programmers.

Many think that *AngularJS* has one flaw: while simple use cases are indeed very simple (declarative syntax and directives allow for creating quite advanced applications without a single line of JavaScript), the more complex ones require exponentially more skill from the programmer. This is why this training is focused on complex, advanced *AngularJS* mechanisms – and on explaining the idea behind some of the less obvious design decisions. We help the participants to learn **more than just practical skills in a single library, but also general knowledge of JavaScript-based client applications**.

Duration

3 days

Agenda

1. *AngularJS* – application architecture
 - patterns, anti-patterns and controversies: MVC, MVVM, MVP;
 - application components: model, controller, scope, view, directive
 - bidirectional data binding
 - basic directives (including `ngApp`, `ngRepeat`, `ngSwitch`, `ngView`, `ngClass`, `ngInclude`, `ngShow`, `ngHide`, `ngClick...`)
 - injecting dependencies based on names and metadata
2. A more complex front-end
 - organizing application logic with promises, `$q` services and messages; event propagation
 - details of bidirectional data binding – digest cycle, watch expressions and their syntax, filters (including custom filters) - `$watch`, `$digest`, `$apply`
 - vector and bitmap graphics in the view layer
 - `$animate` service, element identity and binding a given element to data
3. Complex user interface
 - Handling state and URLs; `$router` and `$location` services
 - routing and external templates in practice
 - History API and using fragments

Ask for details

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- Forms: FormController, validation, messages, tracking changes
- 4. Server communication
 - server communication design patterns
 - architecture: loose and tight server - front-end coupling
 - \$http and \$resource services
 - typical server communication solutions and techniques
- 5. Code organization
 - modules, injector configuration
 - using requirejs
 - unit testing with Karma and Jasmine
 - details of \$injector and \$provide services – the uncomfortable truths about registering value, provider, factory and services
 - application initialization
 - custom directives – directive lifecycle, transclusion, isolated and non-isolated scopes

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Target audience and prerequisites

The training requires fluency in HTML and in at least one server-side programming language (e.g., PHP, Java, Ruby, Python – including at least basics of object-oriented programming). The participants should also have at least a cursory knowledge of JavaScript and JQuery.

Certificates

Course participants receive completion certificates signed by ALX.

Locations

- Warsaw (English) – Jasna 14/16A
- Online (English) – your home, office or wherever you want
- any other location (London, UK, EU) on request

Price

990 EUR

The price includes:

- course materials,
- snacks, coffee, tea and soft drinks,
- course completion certificate,
- one-time consultation with the instructor after course completion.