

## Advanced Web Developer (PHP, JS) (code: LC-PHP-S)

### Overview

This course is designed for those who:

- have already an medium degree of expertise in web-based development,
- want to increase their qualifications or find a better job,
- are curious about the current trends and current advanced technologies.

All classes take place in computer labs and are workshops, in accordance with our motto: *You can see theory best in practice.*

### Duration

48h

### Agenda

The course is divided into four modules, which are also offered as a separate trainings.

#### I. Object-oriented programming in PHP, for example Zend Framework

1. Conventions and organization of the program
  - Navigating the ZF code
  - Naming conventions, the distribution to packets
  - Organization of a typical application, configuration of the IDE (Netbeans example)
  - Include\_path, use of Zend\_Loader
  - Necessary design patterns:
    - Strategy, Template Method,
    - Facade,
    - Singleton
    - Registry,
    - Lazy Instantiation,
    - Method Chaining
2. Object handling of a database
  - Classes embedded in ZF:
    - Zend\_Db,
    - Zend\_Db\_Statement,
    - Zend\_Db\_Select,
    - Zend\_Db\_Table
  - Organizing your own code: model repository
  - Necessary design patterns:
    - Data Access Object
    - DTO,
    - Table Gateway
3. Model View Controller
  - MVC architecture map: the place and role of all elements,
  - Necessary design patterns:
    - Front Controller
    - View Helper,
    - Composite View,
  - Code modularization
  - Request life cycle:

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- Routing,
- Dispatching,
- Request and Response objects
- Routing configuration, creating your own router
- Action controllers, action helpers
- Layer view:
  - View,
  - Layout,
  - View Helpers; including url, partial and placeholder

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## II. Databases

1. Optimizing queries
  - Reading query plans (Postgresql example)
  - Different types of filters and joins, costs
  - Statistics
2. Procedural languages  in databases (MySQL and PostgreSQL)
  - Control statements
  - Exceptions
  - Types and variables
  - Cursors, iteration on results
3. Native XML database (eXist example)
  - XPath language
  - XQuery language
  - Areas of application of relational and XML databases

## III. Ajax

1. Quick course in JavaScript for programmers (focused on the fundamental differences between JS and other languages )
  - Literals and unusual literals (object, regexp)
  - Static and dynamic-range, hosting,
  - Closures,
  - Range of references *this* issue, the practical problems
  - Basic JS performance issues, differences in performance of different implementations,
  - Object model:
    - Object oriented model based on prototypes,
    - Prototypes-constructors chain,
    - Static,
    - Privacy,
2. Object Model of a document and a browser
  - DOM, DHTML methods,
  - Ajax: XMLHttpRequest from the inside, model synchronous and asynchronous
3. A typical architecture, libraries
  - Functional Programming, JQuery and Prototype,
  - Visual effects,
  - Observer pattern with closures, client-side MVC
  - XML and JSON services,
  - Component libraries on YUI3 example

## IV. Flash / ActionScript 3

1. AS3 Language
  - AS3 as a dialect of ECMAScript
  - Object model: packages, classes, visibility
  - Ranges, pseudo-variable *this*,
  - Anonymous functions

- Properties: getters and setters
  - IEventDispatcher
  - XML for ECMAScript
2. Flash Platform API
- Create graphics
  - Animation,
  - HTTP request,
  - Loading external resources and embedding resources in the swf file,
  - Integration with the browser; javascript bridge.
3. Flex
- A look at the Flex platform,
  - MXML.

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## Target audience and prerequisites

This course is designed for all Web Developers with at least intermediate degree of expertise. The necessary skills are: a good knowledge of SQL and PHP and at least a basic familiarity with object-oriented programming, basic knowledge of administration of any chosen system database.

In course program terms, this training is a continuation of our Web Application Developer course.

## 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

1190 EUR

The price includes:

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

## Additional info

We are very concerned about the level of classes and full participation of all students; we encourage, in case of any doubts as to meeting the requirements of the course, discussing them with the lecturer or contacting our office.