

Updated on 01/02/2024

Sign up

# Symfony 7 Advanced training

2 days (14 hours)

## Presentation

Symfony is a set of PHP components and a free MVC Framework written in PHP. It provides modular and adaptable features that make website development easier and faster. Symfony 5 is the new version of the framework launched on November 21, 2019 has established itself on the web development market thanks to its lightness and ease of installation with Symfony Flex. This new way of developing applications has won over firms such as BlaBlaCar.com and Spotify.com, who now use Symfony. Other frameworks such as Laravel and Magento are based on Symfony components. In 2017, Symfony passed the one billion download mark.

In this training course, you'll deepen your knowledge of Symfony 7 by using Symfony components in their entirety and creating a Twig extension to create a unique personalized page. You'll also learn about error management and debugging to ensure that your site is optimized. Finally, you'll be able to deploy your applications on a Cloud server using the appropriate security methods.

As with all our training courses, we'll be using the latest stable version of [Symfony 7](#).

## Objectives

- Deepen and master Symfony's advanced concepts
- Assimilate the framework's best practices
- Understand the tool's inherent mechanisms
- Using Symfony in a secure environment

## Target audience

Web Project Managers, Technical Architects, Developers

## Prerequisites

- Mastery of PHP 7
- Mastery of object-oriented programming (OOP)
- HTML and CSS skills
- Have knowledge of Symfony 5 or ideally have taken our [Symfony](#) training course

## Technical requirements

- Latest PHP version installed
- Symfony CLI installed to work locally

Note: Ambient IT does not own the technology, Symfony™ is a registered trademark of Symfony SAS.

## Program on our Symfony 7 : Advanced training course

### PRESENTATION OF NEW PRODUCTS

- Evolutions, Differences & Changes
- Overview of new features in Symfony 4, 5, 6 and 7

### DEPENDENCY INJECTION & SERVICE REGISTRY

- IoC concepts: DependencyInjection Component
- Register new services in the service container
  - Injection Container & Service Locator
- Extend framework functionality with tags
  - Custom service tags

### ADVANCED FORMS

- CollectionType management
  - Add an element dynamically using the prototype
  - Persisting linked elements
  - Delete an element dynamically
  - Validate sub-forms
- Understanding Twig: customizing form display
- Make the "slug" field non-mandatory (option required)
- Form validation with Symfony
  - Using Symfony's default constraints
  - Creating custom constraints

- Using EntityType Field

## MASTERING SYMFONY COMPONENTS

- Control
  - Create your own order
  - Manage options
  - Managing arguments
  - Recover a service from the application
- Process
- Config
- YAML Dumper
- Finder
- Crawler and Filesystem

## RELATIONSHIP WITH THE DATABASE

- Make our fake data more realistic with Faker
- Create slugs easily with String Component (alternative to Slugify or StofDoctrineExtensionsBundle)
- Graph of events in an entity's life cycle
- Doctrine
  - Interacting with the Entity lifecycle
  - Relationships between entities :
    - OneToMany
    - ManyToOne

## SYMFONY EVENT MANAGEMENT

- Understanding how events work
- Create your own events

## USING TWIG

- Designing a Twig extension
- Designing functions
- Designing filters
- Understanding how to manage error pages in a Symfony 7 application
- Create a custom 404 error page and test it manually
- Create a custom 403 error page and test it manually
- Careful caching in production environments

## SECURING SYMFONY PAGES

- Set up form authentication with the "Guard" component
- Fixture updated to create fake users

- Encoding our users' passwords
- Discovering the UserInterface interface
- Authentication :
  - Declare a new provider (User entity)
  - Create login form
  - Genuine user authentication
  - Allow user to log out
  - Identifying errors with the AuthenticationUtils class
- Create the registration form: the RegistrationType
- Test current user rights from a controller or view
- Save customized authorization rules with the "voter" system

## ADD-ON MODULE: DEPLOYING APPLICATIONS IN PRODUCTION (+1 DAY ON REQUEST FOR IN-HOUSE USE ONLY)

- Creation of a Git repository and first code push
- Discovering the gitignore file and ignored files
- Shared hosting: introduction
- Generate .htaccess file with symfony/apache-pack
- Shared Hosting
  - Online with SSH access
  - Online without SSH
  - Update without SSH
  - Updating with SSH
- Cloud deployment: Symfony Cloud (Heroku alternative)
  - Setting up the application
  - Deploying from your local environment
  - Database set-up and updates

Note: Ambient IT does not own the technology, Symfony™ is a registered trademark of Symfony SAS.

## Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

## Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

## Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

## Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

## Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

## Sanction

A certificate will be issued to each trainee who completes the course.