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# Wing training: Backend for native cloud applications

3 days (21 hours)

## Presentation

Our Wing training course will enable you to master all aspects of cloud programming. Mastering this tool will give you all the weapons you need to develop and manage modern applications that can be integrated into any cloud service.

The course will familiarize you with the Wing Lang programming language, its configuration and essential tools. You'll learn about [Wing Lang syntax](#), as well as the preparation and execution phases. You'll also learn how to integrate and manage cloud resources with wing, such as Terraform or CloudFormation libraries. You'll also learn how to create and manage IAM roles.

In this course, you'll learn how to handle errors and bugs, and work with the JSON language. The course also covers asynchronous programming and infrastructure customization with the appropriate plugins.

As with all our training courses, this one will highlight the [latest advances](#) in this technology, ensuring that you are up to date with the tool's new features.

## Objectives

- Configure Wing
- Mastering syntax
- Creating a cloud application
- Customize your cloud application

## Target audience

- **Web developers**
- Cloud engineers

## Prerequisites

- Basic programming skills
- Basic knowledge of cloud computing

## Wing training program

### Introduction to Wing

- Basics of cloud-oriented programming
- Wing features
- Wing installation
- Configuring the development environment
- Introduction to syntax

### Syntax

- Wing Conventions
- Pre-flight and flight phrases
- Basic data types
- Control structure

### Working with cloud services

- Relationship with cloud services
- Phase modifiers
- Resource creation and management
- Integration with Terraform
- IAM policies

### Deploying a cloud application

- Deploying an application with Terraform
- Integration with cloudformation
- Putting it into practice: deploying a simple application

### Advanced functions

- Advanced data and structures

- Error management
- Asynchronous programming
- Building scalable applications
  - Customize infrastructure
  - JSON
- Application security

## Building an Application

- **Designing a multi-level cloud application**
- Database integration
- External APIs
- Setting up an identification system
- Performance optimization
- CI/CD

## Testing and deployment

- **Writing and executing Wing tests**
- Testing integration with cloud services
- Wing simulator
- Update management
- Best practices

## 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 inputs from the trainer supported by examples and

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.