AMBIENT-IT

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Serverless training

3 days (21 hours)

Presentation

Serverless computing is an event-driven application design and deployment model in which computing resources are delivered as scalable, multi-language & multi-code compatible cloud services.

In this training course, you'll discover how to build Web, mobile and IoT applications with serverless architectures using AWS Lambda, Azure Functions, Google CloudFunctions and much more!

Serverless is a free, open-source Web framework written with Node.js, enabling this type of architecture. It is the first framework developed for building applications exclusively on AWS Lambda, a serverless computing platform provided by Amazon as part of Amazon Web Services. However, applications developed with Serverless can be deployed to other service providers, making it possible to use Serveless on major platforms such as Microsoft Azure with Azure Functions, Ibm Bluemix with IBM Cloud Functions based on Apache OpenWhisk, Google Cloud using Google Cloud Functions, Oracle Cloud with Oracle Fn Kubeless based on Kubernetes, Spotinst and Webtask from Auth0.

Serverless is available in Python, Java, C# and Scala.

At the end of this Serverless training course you will be able to install and configure the Serverless framework to work with compute services such as AWS Lambda.Reduce the complexity and cost of deploying microservices on different cloud platforms and manage and capture events to execute functions automatically.

As in all our training courses, we use the latest version of our Serverless 2.50 software.

Objectives

- Configure the Serverless Framework to work with compute services such as AWS Lambda.
- Reduce the complexity and cost of deploying microservices on AWS.
- Send and capture events and execute functions automatically.

Target audience

Developer, Tech Lead, Technical Architect

Prerequisites

Knowledge of a language such as :

- Python
- Java
- C#
- Scala

Further information

Serverless is used by various languages. You can find out more about them in :

- Our Node.js training
- Our Scala training
- Our Java 19 training
- Our Python training
- Our training on Kubernetes Microservices and Kubernetes EKS

Our Serverless Computing training program

Introduction

- What is Serverless?
- Serverless Framework overview
- Setting up an AWS account
- Configuring the Serverless Framework
- Preparing the development environment
- Creating a sample microservice application
- Advantages and disadvantages of Serverless

Serverless Infrastructure Providers

- Google Cloud

- AWS API Gateway
- AWS Lambda
  - Writing an AWS lambda function for execution
  - Deploy function using CLI without server
  - Creating a REST API
  - Monitoring your microservices
- Azure Functions
- IBM Bluemix OpenWhisk

Serverless functions

- What are the Step Functions?
- Serverless plugins
- Defining stage functions with Serverless
- AWS Lambda and Step functions

Database management with Serverless

- A reminder of the basics of NoSql
  - DynamoDB
  - DynamoDB STREAMS

Deployment

- Deployment function
- Package deployment

Companies concerned

This 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 enabling 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 with regard to 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 training: 60% Practical, 40% Theory. Training material distributed in

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.