



# Advanced Developing on AWS with AWS Jam (ADV-DEV-AWS-JAM)

# ID ADV-DEV-AWS-JAM Prix sur demande Durée 4 jours

#### A qui s'adresse cette formation

This course is intended for experienced software developers who are already familiar with AWS services.

#### **Pré-requis**

We recommend that attendees of this course have:

- In-depth knowledge of at least one high-level programming language
- Working knowledge of core AWS services and public cloud implementation
- Completion of the <u>Developing on AWS (AWSD</u>) classroom training, and then a minimum of 6 months of application of those concepts in a real world environment

#### **Objectifs**

In this course, you will:

- Analyze a monolithic application architecture to determine logical or programmatic break points where the application can be broken up across different AWS services
- Apply Twelve-Factor Application manifesto concepts and steps while migrating from a monolithic architecture
- Recommend the appropriate AWS services to develop a microservices based cloud-native application
- Use the AWS API, CLI, and SDKs to monitor and manage AWS services
- Migrate a monolithic application to a microservices application using the 6 Rs of migration
- Explain the SysOps and DevOps interdependencies necessary to deploy a microservices application in AWS
- Work in a team environment to solve real AWS use-case challenges in an AWS Jam

#### Contenu

#### The cloud journey

- Common off-cloud architecture
- Introduction to Cloud Air
- Monolithic architecture
- Migration to the cloud
- Guardrails
- The six R's of migration
- The Twelve-Factor Application Methodology
- · Architectural styles and patterns
- Overview of AWS Services
- Interfacing with AWS Services
- Authentication
- Infrastructure as code and Elastic Beanstalk
- Demonstration: Walk through creating base infrastructure with AWS CloudFormation in the AWS console
- Hands-on lab 1: Deploy your monolith application using AWS Elastic Beanstalk

## **Gaining Agility**

- DevOps
- CI/CD
- Application configuration
- Secrets management
- CI/CD Services in AWS
- Demonstration: Demo AWS Secrets Manager

#### **Monolith to MicroServices**

- Microservices
- Serverless
- A look at Cloud Air
- · Microservices using Lambda and API Gateway
- SAM
- Strangling the Monolith
- Hands-on lab: Using AWS Lambda to develop microservices

#### **Polyglot Persistence & Distributed Complexity**

- Polyglot persistence
- DynamoDB best practices
- Distributed complexity
- Step functions

#### **Resilience and Scale**

- Decentralized data stores
- Amazon SQS
- Amazon SNS
- Amazon Kinesis Streams
- AWS IoT Message Broker
- Serverless event bus
- Event sourcing and CQRS
- Designing for resilience in the cloud
- Hands-on lab: Exploring the AWS messaging options

# Security and Observability

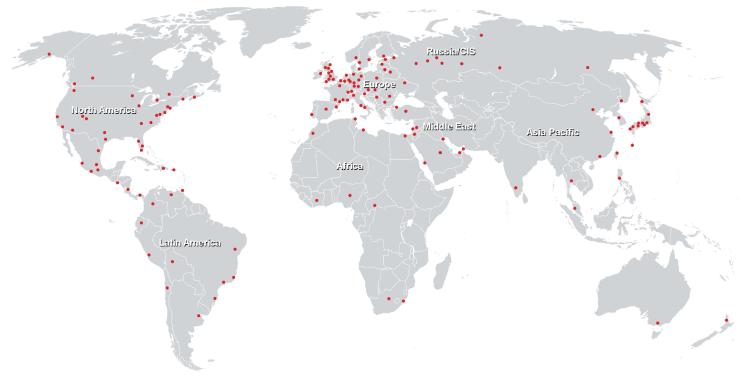
- Serverless Compute with AWS Lambda
- Authentication with Amazon Cognito
- Debugging and traceability
- Hands-on lab: Developing microservices on AWS
- Hands-on lab 8: Automating deployments with Cloud Formation

# AWS Jam

- Participate in team based challenges in a real AWS environment
- Compete with your colleagues in a gamified, hands-on learning experience
- Apply your learning from the course on various AWS services



### Centres de formation dans le monde entier





## Fast Lane Institute for Knowledge Transfer (Switzerland) AG

Husacherstrasse 3 CH-8304 Wallisellen Tel. +41 44 832 50 80

info@flane.ch, https://www.flane.ch