



## Advanced Developing on AWS (AWSAD)

Amazon

- **Localidade:** Porto
  - **Data:** 08 Jul 2024
  - **Preço:** 1910 € ( Os valores apresentados não incluem IVA. Oferta de IVA a particulares e estudantes. )
  - **Horário:** Laboral das 9h00 às 17h00
  - **Nível:**
  - **Duração:** 21h
- 

### Sobre o curso

The Advanced Developing on AWS course uses the real-world scenario of taking a legacy, on-premises monolithic application and refactoring it into a serverless microservices architecture.

This three-day advanced course covers advanced development topics such as architecting for a cloud-native environment; deconstructing on-premises, legacy applications and repackaging them into cloud-based, cloud-native architectures; and applying the tenets of the Twelve-Factor Application methodology.

### Objetivos

In this course, you will learn how to:

- 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.

---

## Destinatários

Experienced software developers who are already familiar with AWS services

---

## Pré-requisitos

- In-depth knowledge of at least one high-level programming language
  - Working knowledge of core AWS services and public cloud implementation
  - Completion of the Developing on AWS course, and then a minimum of 6 months of application of those concepts in a real world environment
- 

## Metodologia

This course is delivered through [a mix of]:

- Classroom training
  - Labs
- 

## Programa

- The cloud journey
- Gaining Agility
- Monolith to MicroServices
- Polyglot Persistence & Distributed Complexity
- Resilience and Scale
- Security and Observability

### **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 & 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
- Steps 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