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

ID ADV-DEV-AWS-JAM **Price** on request **Duration** 4 days

Who should attend

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

Prerequisites

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 Developing on AWS (AWSD) classroom training, and then a minimum of 6 months of application of those concepts in a real world environment

Course Objectives

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

Course Content

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

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

- 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

Training Centres worldwide

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