

Developing On Aws

DevAWS - Version: 2

 3 days Course

Description:

Developing on AWS helps developers understand how to use the AWS SDK to develop secure and scalable cloud applications. The course provides in-depth knowledge about how to interact with AWS using code and covers key concepts, best practices, and troubleshooting tips

Intended audience:

Intermediate-level software developers

Prerequisites:

In-depth knowledge of at least one high-level programming language
Working knowledge of core AWS services and public cloud implementation

Objectives:

Set up the AWS SDK and developer credentials for Java, C#/.NET, and Python
Interact with AWS services and develop solutions by using the AWS SDK
Use AWS Identity and Access Management (IAM) for service authentication
Use Amazon Simple Storage Service (Amazon S3) and Amazon DynamoDB as data stores
Integrate applications and data by using AWS Lambda, Amazon API Gateway, Amazon Simple Queue Service (Amazon SQS), Amazon Simple Notification Service (Amazon SNS), and AWS Step Functions
Use Amazon Cognito for user authentication
Use Amazon ElastiCache to improve application scalability
Leverage the CI/CD pipeline to deploy applications on AWS

Topics:

Module 1: Introduction to AWS

- Introduction to the AWS Cloud
- Cloud scenarios
- Infrastructure overview
- Introduction to AWS foundation services

Module 2: Introduction to Developing on AWS

- Introduction to Developing on AWS
- Getting started with developing on AWS
- Introduction to developer tools
- Introduction to management tools

Module 3: Introduction to AWS Identity and Access Management

- Introduction to AWS Identity and Access Management
- Shared responsibility model
- Introduction to IAM
- Use authentication and authorization

Module 4: Introduction to the Lab Environment

- Introduction to the Lab Environment

Module 5: Developing Storage Solutions with Amazon Simple Storage Service

- Overview of AWS storage options
- Amazon S3 key concepts .
- Best practices
- Troubleshooting

- Scenario: Building a complete application

Module 6: Developing Flexible NoSQL Solutions with Amazon DynamoDB

- Introduction to AWS database options
- Introduction to Amazon DynamoDB
- Developing with DynamoDB
- Best practices
- Troubleshooting
- Scenario: Building an end-to-end app

Module 7: Developing Event-Driven Solutions with AWS Lambda

- What is serverless computing? .
- Introduction to AWS Lambda
- Key concepts
- How Lambda works
- Use cases
- Best practices
- Scenario: Build an end-to-end app

Module 8: Developing Solutions with Amazon API Gateway

- Introduction to Amazon API Gateway
- Developing with API Gateway
- Best practices
- Introduction to AWS Serverless Application Model
- Scenario: Building an end-to-end app

Module 9: Developing Solutions with AWS Step Functions

- Understanding the need for Step Functions
- Introduction to AWS Step Functions
- Use cases

Module 10: Developing Solutions with Amazon Simple Queue Service and Amazon Simple Notification Service

- Why use a queueing service?
- Developing with Amazon Simple Queue Service
- Developing with Amazon Simple Notification Service
- Developing with Amazon MQ

Module 11: Caching Information with Amazon ElastiCache

- Caching overview
- Caching with Amazon ElastiCache
- Caching strategies

Module 12: Developing Secure Applications

- Securing your applications
- Authenticating your applications to AWS
- Authenticating your customers
- Scenario: Building an end-to-end app

Module 13: Deploying Applications

- Introduction to DevOps
- Introduction to deployment and testing strategies
- Deploying applications with AWS Elastic Beanstalk
- Scenario: Building an end-to-end app