

# Developing on AWS: Fast Track

## AWS Classroom Training

### Course description

This course teaches developers how to programmatically interact with AWS services to build web solutions. You learn how to use the AWS SDK to develop secure and scalable cloud applications. Explore how to interact with AWS using code and learn about key concepts, best practices, and troubleshooting tips.

- Course level: Intermediate
- Duration: 4 hours

### Activities

This course includes presentations, demonstrations, knowledge checks, and a lab.

### Course objectives

In this course, you will learn to:

- Explain how to use the AWS Software Development Kits (AWS SDKs), Command Line Interface (AWS CLI), and IDEs when building an application
- Use multiple programming patterns in your applications to access AWS services
- Use AWS SDKs to perform CRUD (create, read, update, delete) operations on Amazon Simple Storage Service (Amazon S3) and Amazon DynamoDB resources
- Build AWS Lambda functions with other service integrations for your web applications

### Intended audience

This course is intended for:

- Software developers
- Solution architects
- IT workers who want to improve their developing skills using 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

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### Course outline

#### Course Overview

- Logistics
- Student resources
- Agenda

#### Getting Started with Development on AWS

- Describe how to access AWS services programmatically
- List some programmatic patterns and how they provide efficiencies within AWS SDKs and AWS CLI
- Explain the value of AWS Cloud9

#### Getting Started with Databases

- Describe the key components of DynamoDB
- Explain how to connect to DynamoDB
- Describe how to build a request object
- Explain how to read a response object
- List the most common troubleshooting exceptions

#### Processing Your Application Logic

- Develop a Lambda function using SDKs
- Configure triggers and permissions for Lambda functions
- Test, deploy, and monitor Lambda functions

#### Hands-On Lab: Develop Solutions Using AWS Lambda Functions

- Create AWS Lambda functions and interact programmatically using AWS SDKs and AWS CLI
- Configure AWS Lambda functions to use the environment variables and to integrate with other services
- Generate Amazon S3 pre-signed URLs using AWS SDKs and verify the access to bucket objects
- Deploy the AWS Lambda functions with .zip file archives through your IDE and test as needed
- Invoke AWS Lambda functions using the AWS Console and AWS CLI