

COURSE OVERVIEW

Course Name:
(DVA-C02)
Developing on AWS

COURSE DURATION: 3 Days

Gauteng:

3rd Floor, 34 Whitely Road
Melrose Arch
Johannesburg
2196

Gauteng:

192 on Bram
192 Bram Fischer Drive
Ferndale, Randburg
Johannesburg
2160

Cape Town:

3rd Floor, Thomas Pattullo Building
19 Jan Smuts St
Cape Town
8000

Durban:

9 Mountview Close
Broadlands
Mount Edgecombe
Durban
4302

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INTRODUCTION

This course teaches experienced developers how to programmatically interact with AWS services to build web solutions. It guides you through a high-level architectural discussion on resource selection and dives deep into using the AWS Software Development Kits (AWS SDKs) and Command Line Interface (AWS CLI) to build and deploy your cloud applications. You will build a sample application during this course, learning how to set up permissions to the development environment, adding business logic to process data using AWS core services, configure user authentications, deploy to AWS cloud, and debug to resolve application issues. The course includes code examples to help you implement the design patterns and solutions discussed in the course. The labs reinforce key course content and help you to implement solutions using the AWS SDK for Python, .Net, and Java, the AWS CLI, and the AWS Management Console.

INTENDED AUDIENCE

This course is intended for:

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

DELIVERY METHOD

Our courses have flexible delivery options:

- In-person classroom training at the Impactful training facilities
 - Johannesburg, Durban, Cape Town
- Virtual instructor-led training
- Nationally: on-site at the client

PREREQUISITES

We recommend that attendees of this course have the following prerequisites:

- AWS Technical Essentials
- Working knowledge of AWS core services
- Programming experience in any one of the following languages:
 - Python
 - .NET
 - Java

COURSE OBJECTIVES

In this course, you will learn how to:

- Build a simple end-to-end cloud application using AWS Software Development Kits (AWS SDKs), Command Line Interface (AWS CLI), and IDEs.
- Configure AWS Identity and Access Management (IAM) permissions to support a development environment.
- 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.
- Understand the benefits of microservices architectures and serverless applications to design.
- Develop API Gateway components and integrate with other AWS services.
- Explain how Amazon Cognito controls user access to AWS resources.
- Build a web application using Cognito to provide and control user access.
- Use DevOps methodology to reduce the risks associated with traditional application releases and identify AWS services that help in implementing DevOps practices.
- Use AWS Serverless Application Model (AWS SAM) to deploy an application.
- Observe your application build using Amazon X-Ray.

COURSE CONTENT

- Module 1: Course Overview
- Module 2: Building a Web Application on AWS
- Module 3: Getting Started with Development on AWS
- Module 4: Getting Started with Permissions
- Lab 1: Configure the Developer Environment
- Module 5: Getting Started with Storage
- Module 6: Processing Your Storage Operations
- Lab 2: Develop Solutions Using Amazon S3
- Module 7: Getting Started with Databases
- Module 8: Processing Your Database Operations
- Lab 3: Develop Solutions Using Amazon DynamoDB
- Module 9: Processing Your Application Logic
- Module 9: Processing Your Application Logic
- Lab 4: Develop Solutions Using AWS Lambda Functions
- Module 10: Managing the APIs
- Lab 5: Develop Solutions Using Amazon API Gateway
- Module 11: Building a Modern Application
- Module 12: Granting Access to Your Application Users
- Lab 6: Capstone – Complete the Application Build
- Module 13: Deploying Your Application
- Module 14: Observing Your Application
- Lab 7: Observe the Application Using AWS X-Ray