# **1 – Getting started with DevOps on AWS**

### Module 1: Introduction to DevOps

* Module Overview
* What is DevOps?
* Problems with Traditional Development Practices
* Why DevOps?
* Knowledge Check
* Summary

In this module, you learned that teams who adopt DevOps culture, practices, and tools instead of traditional development practices, can develop and deliver applications at higher velocity, and respond quicker to driving business and customer needs.

You are now able to:

* Describe challenges associated with traditional software development practices.
* List the benefits of implementing DevOps.

### Module 2: DevOps Methodology

* Module Overview
* DevOps Culture
* DevOps Practices
* DevOps Tools
* Knowledge Check
* Summary

In this module, you learned that adopting a DevOps methodology requires creating and nurturing a DevOps culture, incorporating DevOps practices, and using the appropriate DevOps tools.

You are now able to:

* Discuss the challenges involved in adopting a DevOps culture and describe possible solutions.
* Identify automation opportunities in developing and maintaining applications.
* Describe the benefits of decoupling services or components.
* Define observability and describe its importance to DevOps.
* Explain why security is important in every phase of the pipeline.
* Explain how AWS integrates with third-party tools for automated code delivery and deployments.

### Module 3: Amazon’s DevOps Transformation

* Module Overview
* Amazon’s DevOps Transformation
* Summary

In this module, you learned about Amazon's transformation to DevOps.

You are now able to:

* Describe the transition from a monolithic approach to a microservices architecture.
* Describe the benefits of smaller, autonomous teams.

### Module 4: AWS DevOps Tools

* Module Overview
* AWS DevOps Tools
* Knowledge Check
* Summary

Leverage DevOps best practices and automate your release pipelines, partially or fully. AWS services provide DevOps teams with the ability to implement CI/CD pipelines. AWS provides services to build, store, deploy, and monitor applications.

You are now able to:

* List the AWS services available to implement a successful DevOps methodology.
* Identify the AWS services used to automate the continuous integration and continuous  
  delivery process.

### Module 5: AWS and DevOps Demo

* Module Overview
* Demo: Create and Control a CI/CD Pipeline
* Summary

In this module, you reviewed how DevOps and AWS services can improve deployments by making the deployment process consistent and repeatable

You are now able to:

* Explain how to use AWS CodeDeploy to deploy web applications to Amazon EC2 servers in multiple Regions.
* Explain how to use AWS CodePipeline to establish a continuous integration and  
  perform continuous deployment to multiple Regions.

### Course summary

Congratulations, you reached the end of this course.

In this course, you learned about the DevOps culture, practices, and tools that help teams reliably deliver applications and services at high velocity. You also learned about key AWS services that are designed to help you practice DevOps.

You are now able to:

* Describe the DevOps methodologies of culture, practices, and tools.
* Explain why adopting a mindset that supports a DevOps culture is essential to implementing DevOps.
* Describe Amazon's transformation to DevOps.
* Categorize and describe key AWS DevOps services that support the application lifecycle.
* Identify the AWS services used to automate the continuous integration and continuous delivery (CI/CD) process.
* Describe how to create and control a CI/CD pipeline.