ProTech Professional Technical Services, Inc.

DevOps Engineering on AWS

Course Summary

Description

DevOps Engineering on AWS demonstrates how to use the most common DevOps patterns to develop, deploy, and maintain applications on AWS. The course covers the core principles of the DevOps methodology and examines a number of use cases applicable to startup, small and medium-sized business, and enterprise development scenarios.

Objectives

At the end of this course, students will be able to:
- Use the principal concepts and practices behind the DevOps methodology
- Design and implement an infrastructure on AWS that supports one or more DevOps development projects
- Use AWS CloudFormation and AWS OpsWorks to deploy the infrastructure necessary to create development, test, and production environments for a software development project
- Use AWS CodeCommit and understand the array of options for enabling a Continuous Integration environment on AWS
- Use AWS CodePipeline to design and implement a Continuous Integration and Delivery pipeline on AWS
- Implement several common Continuous Deployment use cases using AWS technologies, including blue/green deployment and A/B testing
- Distinguish between the array of application deployment technologies available on AWS (including AWS CodeDeploy, AWS Opsworks, AWS Elastic Beanstalk, Amazon EC2 Container Service, and Amazon EC2 Container Registry), and decide which technology best fits a given scenario
- Fine-tune the applications you deliver on AWS for high performance and use AWS tools and technologies to monitor your application and environment for potential issues

Topics

- Introduction to DevOps
- AWS Command Line Interface
- Introduction to DevSecOps
- Deployment Strategies and Developer Tools
- Infrastructure as Code
- Deep Dive into Developer Tools
- Automated Testing on AWS

- Configuration Management
- AMI Building and Amazon EC2 Systems Manager
- Containers: Docker and ECS
- Customer Case Studies

Audience

This course is designed for Systems Administrators, Software Developers, and anyone looking to become a DevOps practitioner.

Prerequisites

We recommend that attendees of this course have the following prerequisites:
- Working knowledge of one or more high-level programming languages (C#, Java, PHP, Ruby, Python, etc.)
- Intermediate knowledge of administering Linux or Windows systems at the command-line level
- Working experience with AWS using both the AWS Management Console and the AWS Command Line Interface (AWS CLI)
- Attended Developing on AWS or System Operations on AWS course

Duration

Three days