ExecuTrain

Impulsamos tu talento tecnológico

MICROSOFT	RED HAT	VIRTUALIZACIÓN
CIBERSEGURIDAD	DESARROLLO	OFFICE
BIG DATA	BLOCK CHAIN	BASES DE DATOS
GESTIÓN DE SERVICIOS IT	CLOUD COMPUTING	METODOLOGÍAS EN PROYECTOS
SISTEMAS OPERATIVOS	Y MÁS...	

¿Por qué ExecuTrain?

ExecuTrain es un proveedor de entrenamiento corporativo a nivel internacional y líder mundial en la capacitación empresarial. Contamos con más de 30 años de Experiencia y con más de 75 mil personas capacitadas a nivel Nacional.

Te guiamos en la definición de tus requerimientos de capacitación, en las diferentes etapas:

- ✓ Detección de necesidades, evaluación de conocimientos, plan de capacitación y seguimiento posterior para elegir el plan de capacitación como tú lo necesitas.
- ✓ El **más amplio catálogo de cursos**, desde un nivel básico hasta los niveles de conocimientos más especializados.
- ✓ En ExecuTrain el material y la **metodología están diseñados por expertos en aprendizaje humano**. Lo que te garantiza un mejor conocimiento en menor tiempo.
- ✓ Tú puedes confiar y estar seguro del aprendizaje porque nuestro **staff de instructores es de primer nivel**, algunos de los cuales son consultores en reconocidas empresas.
- ✓ No pierdas tu tiempo, los cursos están diseñados para un aprendizaje práctico.

Nuestro compromiso es que tú aprendas, si no quedas satisfecho con los resultados del programa, podrás volver a tomar los cursos hasta tu entera satisfacción o la devolución de tu dinero.

Modalidad de Servicio

Cursos en Fecha Calendario

Súmate a nuestros grupos en fechas públicas.

Cursos Privados

On site, en nuestras instalaciones o en línea con instructor en vivo.

Autoestudio con soporte de instructor

Cursos en modalidad autoestudio, con acceso 24/7 a la plataforma de estudio, con soporte de instructor y foros de ayuda

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AWS / DevOps Engineering on AWS

DevOps Engineering on AWS teaches you how to use the combination of DevOps cultural philosophies, practices, and tools to increase your organization's ability to develop, deliver, and maintain applications and services at high velocity on AWS. This course covers Continuous Integration (CI), Continuous Delivery (CD), infrastructure as code, microservices, monitoring and logging, and communication and collaboration.

Hands-on labs give you experience building and deploying AWS CloudFormation templates and CI/CD pipelines that build and deploy applications on Amazon Elastic Compute Cloud (Amazon EC2), serverless applications, and container-based applications. Labs for multi-pipeline workflows and pipelines that deploy to multiple environments are also included.

Intended Audience

This course is intended for:
- ✓ DevOps engineers
- ✓ DevOps architects
- ✓ Operations engineers
- ✓ System administrators
- ✓ Developers

Course objectives

- ✓ Use DevOps best practices to develop, deliver, and maintain applications and services at high velocity on AWS
- ✓ List the advantages, roles and responsibilities of small autonomous DevOps teams
- ✓ Design and implement an infrastructure on AWS that supports DevOps development projects
- ✓ Leverage AWS Cloud9 to write, run and debug your code
- ✓ Deploy various environments with AWS CloudFormation
- ✓ Host secure, highly scalable, and private Git repositories with AWS CodeCommit
- ✓ Integrate Git repositories into CI/CD pipelines
- ✓ Automate build, test, and packaging code with AWS CodeBuild
- ✓ Securely store and leverage Docker images and integrate them into your CI/CD pipelines
- ✓ Build CI/CD pipelines to deploy applications on Amazon EC2, serverless applications, and container-based applications
- ✓ Implement common deployment strategies such as "all at once," "rolling," and "blue/green"
- ✓ Integrate testing and security into CI/CD pipelines
- ✓ Monitor applications and environments using AWS tools and technologies.

Prerequisites

- ✓ Previous attendance at the Systems Operations on AWS or Developing on AWS courses
- ✓ Working knowledge of one or more high-level programing languages, such as C#, Java, PHP, Ruby, Python
- ✓ Intermediate knowledge of administering Linux or Windows systems at the command-line level
- ✓ Two or more years of experience provisioning, operating, and managing AWS environments

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Course Outline

Module 0: Course overview

- Course objective
- Suggested prerequisites
- Course overview breakdown

Module 1: Introduction to DevOps

- What is DevOps?
- The Amazon journey to DevOps
- Foundations for DevOps

Module 2: Infrastructure Automation

- Introduction to Infrastructure Automation
- Diving into the AWS CloudFormation template
- Modifying an AWS CloudFormation template
- Demonstration: AWS CloudFormation template structure, parameters, stacks, updates, importing resources, and drift detection

Module 3: AWS Toolkits

- Configuring the AWS CLI
- AWS Software Development Kits (AWS SDKs)
- AWS SAM CLI
- AWS Cloud Development Kit (AWS CDK)
- AWS Cloud9
- Demonstration: AWS CLI and AWS CDK
- Hands-on lab: Using AWS CloudFormation to provision and manage a basic infrastructure

Module 4: Continuous integration and continuous delivery (CI/CD) with development tools

- CI/CD Pipeline and Dev Tools
- Demonstration: CI/CD pipeline displaying some actions from AWS CodeCommit, AWS CodeBuild, AWS CodeDeploy and AWS CodePipeline
- Hands-on lab: Deploying an application to an EC2 fleet using AWS CodeDeploy
- AWS CodePipeline

- Demonstration: AWS integration with Jenkins
- Hands-on lab: Automating code deployments using AWS CodePipeline

Module 5: Introduction to Microservices

- Introduction to Microservices

Module 6: DevOps and containers

- Deploying applications with Docker
- Amazon Elastic Container Service and AWS Fargate
- Amazon Elastic Container Registry and Amazon Elastic Kubernetes service
- Demonstration: CI/CD pipeline deployment in a containerized application

Module 7: DevOps and serverless computing

- AWS Lambda and AWS Fargate
- AWS Serverless Application Repository and AWS SAM
- AWS Step Functions
- Demonstration: AWS Lambda and characteristics
- Demonstration: AWS SAM quick start in AWS Cloud9
- Hands-on lab: Deploying a serverless application using AWS Serverless Application Model (AWS SAM) and a CI/CD Pipeline

Module 8: Deployment strategies

- Continuous Deployment
- Deployments with AWS Services

Module 9: Automated testing

- Introduction to testing
- Tests: Unit, integration, fault tolerance, load, and synthetic
- Product and service integrations

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Module 10: Security automation

- Introduction to DevSecOps
- Security of the Pipeline
- Security in the Pipeline
- Threat Detection Tools
- Demonstration: AWS Security Hub, Amazon GuardDuty, AWS Config, and Amazon Inspector

Module 11: Configuration management

- Introduction to the configuration management process
- AWS services and tooling for configuration management
- Hands-on lab: Performing blue/green deployments with CI/CD pipelines and Amazon Elastic Container Service (Amazon ECS)

Module 12: Observability

- Introduction to observability
- AWS tools to assist with observability
- Hands-on lab: Using AWS DevOps tools for CI/CD pipeline automations

Module 13: Reference architecture (Optional module)

- Reference architectures

Module 14: Course summary

- Components of DevOps practice
- CI/CD pipeline review
- AWS Certification