DevOps Foundation Certification

About DevOpsSchool

DevOpsSchool is a unit of "Cotocus PVT ltd" and a leading platform which helps IT organizations and professionals to learn all the emerging technologies and trend which helps them to learn and embrace all the skills, intelligence, innovation and transformation which requires to achieve the end result, quickly and efficiently. We provide over 40 specialized programs on DevOps, Cloud, Containers, Security, AI, ML and on Big data that are focused on industry requirement and each curriculum is developed and delivered by leading experts in each domain and aligned with the industry standards.

About Course

The DevOps Foundation Certification is an entry-level credential designed to introduce individuals to the core concepts and practices of DevOps. This certification provides a solid foundation in understanding how DevOps fosters collaboration between development and operations teams, ultimately leading to faster, more reliable software delivery. Participants will learn about key DevOps practices such as Continuous Integration, Continuous Delivery, Infrastructure as Code, and automated testing, along with an overview of the tools and technologies that support these practices. Additionally, the certification emphasizes the cultural shift required to successfully implement DevOps, highlighting the importance of communication and collaboration across teams. Earning the DevOps Foundation Certification validates one's knowledge of these essential DevOps principles and prepares individuals to contribute effectively to DevOps initiatives within their organizations.

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Duration	5 days
Mode	Online (Instructor-led, live & Interactive)
Projects (Real time scenario based)	1

FEATURES	DEVOPSSCHOOL	OTHERS
Faculty Profile Check	✔	✖
Lifetime Technical Support	✔	✖
Lifetime LMS access	✔	✖
Top 25 Tools	✔	✖
Interviews Kit	✔	✖
Training Notes	✔	✖
Step by Step Web Based Tutorials	✔	✖
Training Slides	✔	✖
Training + Additional Videos	✔	✖

Training

DevOps As part of this course, you would be strong in DevOps technology. You would learn Linux, Python, DevOps, Docker, Jira, Git, SonarQube, Maven, Ansible, Jenkins, Kubernetes, Datadog, Splunk, NewRelic, Terraform and various other stacks related to this methodology.

Projects

As part of this initiative, trainer would help you to execute one real time scenario based project, doing it end to end and step by step to visualize a real agile work environment in any organization.

Interview

As part of this, you would give complete Agile Developers interview preparations Kit. This interview kit will help you organize your application and interview with eas

AGENDA : DEVOPS FOUNDATION CERTIFICATION

Day 1 - DevOps Foundation & Git Essentials

Introduction to DevOps

- Overview of DevOps: Understanding DevOps culture, principles, and practices.
- Key Concepts: Continuous Integration (CI), Continuous Delivery (CD), Infrastructure as Code (IaC), and Microservices.
- Benefits of DevOps: How DevOps improves collaboration, speeds up deployments, and reduces errors.
- DevOps Lifecycle: Exploration of the DevOps lifecycle including planning, coding, building, testing, releasing, deploying, operating, and monitoring.
- DevOps Tools: Overview of popular tools used in each phase of the DevOps lifecycle.

Git Essentials

- Introduction to Version Control Systems (VCS): The role of VCS in DevOps.
- Git Basics: Setting up Git, configuring Git, and understanding key Git concepts like repositories, commits, branches, and merges.
- Branching Strategies: Best practices for branching and merging in a collaborative environment.
- Advanced Git Techniques: Rebasing, cherry-picking, and handling merge conflicts.
- Git Workflows: Exploring different Git workflows (e.g., Git Flow, GitHub Flow).
- Hands-On Lab: Creating a Git repository, making commits, branching, merging, and collaborating with Git.

Day 2 - AWS Essentialst

Introduction to Cloud Computing

- Cloud Fundamentals: Understanding cloud computing concepts, benefits, and service models (IaaS, PaaS, SaaS).
- Cloud Providers Overview: Comparison of major cloud providers (AWS, Azure, Google Cloud).

AWS Core Services

- AWS Overview: Introduction to AWS and its global infrastructure.
- Compute Services: EC2, Lambda, Auto Scaling, and Elastic Load Balancing.
- Storage Services: S3, EBS, EFS, and Glacier.
- Networking Services: VPC, Route 53, CloudFront, and API Gateway.
- Identity and Access Management (IAM): Users, roles, policies, and security best practices.
- Hands-On Lab: Launching an EC2 instance, configuring security groups, setting up S3 buckets, and managing IAM roles.

AWS DevOps Tools

- AWS DevOps Tools: Overview of AWS tools for DevOps (CodeCommit, CodeBuild, CodeDeploy, CodePipeline).
- Automation with AWS: Introduction to Infrastructure as Code (IaC) using AWS CloudFormation.
- Monitoring and Logging: Introduction to CloudWatch, CloudTrail, and other monitoring tools.

Day- 3 Gradle Essentials & Ansible Essentials

Gradle Essentials

- Introduction to Build Tools: Understanding the role of build automation tools in DevOps.
- Gradle Overview: Introduction to Gradle and its features.
- Setting Up Gradle: Installing and configuring Gradle.
- Build Scripts: Writing and understanding build scripts using Groovy or Kotlin DSL.
- Dependency Management: Managing project dependencies with Gradle.
- Task Automation: Creating and customizing tasks, multi-project builds.
- Continuous Integration: Integrating Gradle with CI/CD pipelines.
- Hands-On Lab: Building a Java application using Gradle, managing dependencies, and automating tasks.

Ansible Essentials

- Introduction to Configuration Management: Understanding the role of configuration management in DevOps.
- Ansible Overview: Introduction to Ansible, its architecture, and use cases.
- Setting Up Ansible: Installation and configuration of Ansible.
- Inventory Management: Managing inventory files and groups.
- Playbooks and Modules: Writing Ansible playbooks, using modules, and managing roles.
- Ansible Galaxy: Using pre-built roles from Ansible Galaxy.
- Hands-On Lab: Writing and executing playbooks to automate infrastructure tasks, managing configurations, and deploying applications.

Day - 4 Terraform Essentials & Docker Essentials

Terraform Essentials

- Introduction to Infrastructure as Code (IaC): Understanding IaC and its importance in DevOps.
- Terraform Overview: Introduction to Terraform and its architecture.
- Terraform Setup: Installing and configuring Terraform.
- Providers and Resources: Working with providers (AWS, Azure, etc.) and defining resources.
- Terraform Configuration: Writing and managing Terraform configuration files.
- State Management: Understanding Terraform state and state files.
- Modules and Workspaces: Using modules and managing environments with workspaces.
- Hands-On Lab: Creating and managing infrastructure using Terraform, working with providers, and using modules.

Docker Essentials

- Introduction to Containerization: Understanding containers and their role in DevOps.
- Docker Overview: Introduction to Docker, its architecture, and components (Docker Engine, Docker Hub, Docker Compose).
- Docker Installation: Installing and configuring Docker.
- Creating Docker Containers: Building, running, and managing Docker containers.
- Docker Images: Working with Docker images, creating custom images using Dockerfiles.
- Docker Compose: Orchestrating multi-container applications with Docker Compose.
- Docker Networking and Storage: Managing container networking and persistent storage.
- Hands-On Lab: Building and running Docker containers, creating Dockerfiles, using Docker Compose to manage multi-container applications.

Days – 5 DevOps Essentials

Introduction to Container Orchestration

- Need for Orchestration: Understanding the need for container orchestration in a microservices architecture.
- DevOps Overview: Introduction to DevOps, its architecture, and key components (Pods, Nodes, Clusters).

DevOps Setup

- DevOps Installation: Setting up a DevOps cluster (minikube, kubeadm, or using managed services like EKS, GKE).
- DevOps Resources: Understanding and working with resources (Pods, Services, Deployments, ConfigMaps, Secrets).
- Networking in DevOps: Managing networking, services, and Ingress controllers..

Deploying Applications on DevOps

- Creating and Managing Pods: Deploying and managing Pods.
- Scaling Applications: Horizontal and vertical scaling in DevOps.
- DevOps Storage: Managing persistent storage with Persistent Volumes (PV) and Persistent Volume Claims (PVC).
- Helm Overview: Introduction to Helm and managing DevOps applications with Helm charts.
- Hands-On Lab: Deploying and managing applications in DevOps, scaling, load balancing, and using Helm for application management.

Thank you!

Connect with us for more info

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