

DEVOPS

ADVANCED

5 DAYS

Infrastructure as Code with Serverless Framework

Build a strong foundation in Infrastructure as Code and serverless architectures by understanding core principles and best practices. Learn how to provision infrastructure programmatically, develop and deploy serverless applications using the Serverless Framework, and automate secure CI/CD pipelines for scalable cloud solutions.

Why Serverless IaC?

Efficiency and Agility

IaC enables you to provision infrastructure resources programmatically, automating deployment and management processes. This agility empowers your business to respond quickly to changing requirements and deliver applications more efficiently.

Consistency and Reproducibility

With IaC, your infrastructure configurations are defined as code, providing a consistent and reproducible way to manage your infrastructure across different environments.

Scalability and Cost Optimization

The Serverless Framework leverages the auto-scaling capabilities of serverless platforms, ensuring that your infrastructure scales automatically based on workload demands.

What you'll be able to do

- ✓ Gain a clear understanding of the principles and concepts behind Infrastructure as Code.
- ✓ Master the Serverless Fundamentals
- ✓ Learn how to provision infrastructure resources programmatically using IaC tools and frameworks.
- ✓ Know the best practices for designing and organizing infrastructure code, including modularity, reusability, and separation of concerns.
- ✓ Become proficient in utilizing the Serverless Framework to develop and deploy serverless applications.
- ✓ Explore techniques for automating the deployment pipeline using continuous integration and continuous deployment (CI/CD) practices
- ✓ Gain an understanding of security considerations and best practices.

Who this is for

- Developers
- DevOps Engineers
- Infrastructure Engineers
- Cloud Architects
- Technical Managers
- System Administrators

Curriculum

01 IaC Foundations and Principles

- Apply iac foundations and principles with Serverless Framework in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

02 Serverless Architecture Patterns

- Apply serverless architecture patterns with Serverless Framework in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
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03 Serverless Framework Basics

- Apply serverless framework basics with Serverless Framework in practical DevOps workflows
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04 Functions, Events, and APIs

- Apply functions, events, and apis with Serverless Framework in practical DevOps workflows
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05 Data Storage and Auth

- Apply data storage and auth with Serverless Framework in practical DevOps workflows
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06 Security and Hardening

- Apply security and hardening with Serverless Framework in practical DevOps workflows
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07 Scale and Performance

- Apply scale and performance with Serverless Framework in practical DevOps workflows
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08 CI/CD for Serverless

- Apply ci/cd for serverless with Serverless Framework in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
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09 Monitoring, Logging, and Debugging

- Apply monitoring, logging, and debugging with Serverless Framework in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
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10 State, Versioning, and Multi-cloud

- Apply state, versioning, and multi-cloud with Serverless Framework in practical DevOps workflows
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11 Extensions and Integrations

- Apply extensions and integrations with Serverless Framework in practical DevOps workflows
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12 Advanced IaC Patterns

- Apply advanced iac patterns with Serverless Framework in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards