KOENIG SOLUTIONS · COURSE OUTLINE

EXIN DevOps Professional

Learn to apply DevOps principles across flow, feedback, continual learning, security and change management to drive organisational value.

2 Days	5	42
DURATION	MODULES	TOPICS

COURSE OVERVIEW

The “EXIN DevOps Professional” 2-day course is designed to provide participants with a comprehensive understanding of DevOps principles and practices. The course covers topics such as DevOps adoption, the three ways of DevOps (flow, feedback, and continuous learning), information security, and change management. It aims to equip candidates with the knowledge and skills required to drive value in their organizations through effective DevOps implementation.

WHO THIS COURSE IS FOR

- **DevOps Engineers**
- **Development Team Members**
- **Operations Staff**
- **Release Managers**
- **Change Managers**
- **Security Practitioners**

LEARNING OBJECTIVES

- Describe basic DevOps concepts such as continuous delivery
- Distinguish the principles of flow, feedback and continual learning
- Explain how DevOps roles collaborate to add business value
- Apply infrastructure as code and containers to deployment pipelines
- Evaluate release and deployment patterns for low-risk releases
- Assess pull-request and review processes for effective coordination
- Plan game days and blameless postmortems to support learning
- Integrate preventive security controls into the deployment pipeline

COURSE SYLLABUS

5 Modules, 42 Topics

DAY 1 Foundations and The First Way: Flow

01

DevOps Adoption

BASIC CONCEPTS OF DEVOPS

- Describe basic DevOps concepts such as continuous delivery, Agile infrastructure, kata, work in progress (WIP), technical debt, and lead time

PRINCIPLES OF THE THREE WAYS

- Distinguish the principles of flow, feedback, and continuous learning and experimentation
- Explain the difference between system of records (SoR) and system of engagement (SoE) in relation to DevOps

ORGANIZATION

- Explain how various DevOps roles collaborate to add business value
- Contrast I-shape, T-shape, and E-shape personas in DevOps contexts
- Integrate Operations into Development's daily workflow

02

The First Way: Flow

DEPLOYMENT PIPELINE

- Utilize techniques like infrastructure as code and containers to address deployment pipeline challenges
- Choose optimal solutions to enhance the value stream
- Evaluate a shared version control repository for thoroughness
- Tailor the definition of done (DoD) to align with DevOps principles
- Automate environment setup and configuration through appropriate tooling

AUTOMATED TESTING

- Differentiate between non-ideal and ideal testing pyramids
- Select and apply test-driven development appropriately within a flow

CONTINUOUS INTEGRATION

- Determine the best branching strategy
- Assess technical debt's impact on flow and strategies for elimination

LOW-RISK RELEASES

- Evaluate release and deployment patterns to enable low-risk releases
- Choose suitable architectural archetypes for risk reduction

03

The Second Way: Feedback

TELEMETRY

- Discuss how telemetry optimizes the value stream
- Outline the components of a monitoring framework
- Highlight the benefits of self-service telemetry access

FEEDBACK

- Resolve deployment issues using fix-forward and roll-back strategies
- Adapt launching guidance checklists to a DevOps framework
- Conduct safety checks with launch readiness and hand-off reviews
- Utilize UX design as a feedback mechanism

HYPOTHESIS-DRIVEN DEVELOPMENT AND A/B-TESTING

- Integrate A/B testing in releases and feature tests
- Employ hypothesis-driven development for expected delivery outcomes

REVIEW AND COORDINATION

- Assess the efficacy of pull-request processes
- Explain review techniques like pair programming and tool-assisted reviews
- Select the appropriate review method for specific scenarios

04

The Third Way: Continual Learning and Experimentation

LEARNING

- Identify various Simian Army monkey types to enhance learning
- Facilitate blameless postmortem meetings
- Discuss how production failure injections foster resilience
- Plan and execute game days effectively

DISCOVERIES

- Leverage codified non-functional requirements (NFRs) for Operations design
- Incorporate reusable operations user stories in development
- Identify objects for storage in the shared source code repository
- Transform local discoveries into organization-wide improvements

05

Information Security and Change Management

INFORMATION SECURITY

- Integrate preventive security controls into DevOps processes
- Embed security practices in the deployment pipeline
- Utilize telemetry to bolster security measures

CHANGE MANAGEMENT

- Ensure security maintenance during organizational changes
- Sustain compliance continuity throughout change processes

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

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