KOENIG SOLUTIONS · COURSE OUTLINE

DevOps: CALMS & The Three Ways

Learn to apply DevOps principles and CALMS to optimise flow, amplify feedback and drive continual learning.

4	32	6
MODULES	TOPICS	HANDS-ON EXERCISES

COURSE OVERVIEW

This course introduces DevOps, its origins and the business value it delivers, along with the goals expressed through CALMS. It then examines how to mature a DevOps practice within an enterprise, covering organisational culture, involvement principles and scaling patterns. The course proceeds through the Three Ways: optimising flow with infrastructure as code, deployment pipelines and containerization, amplifying feedback through telemetry, monitoring and log aggregation, and building a culture of continual learning and experimentation.

WHO THIS COURSE IS FOR

- **DevOps Engineers**
- **IT Managers**
- **Infrastructure Engineers**
- **Development Team Members**
- **Operations Team Members**
- **Enterprise Architects**

LEARNING OBJECTIVES

- Explain DevOps and its business value
- Describe the origins of DevOps from Deming to Continuous Delivery
- Identify patterns for maturing DevOps in the enterprise
- Apply the Involvement Principle and information security principles
- Implement infrastructure as code and deployment pipelines
- Configure system monitoring and log aggregation tools
- Apply telemetry to anticipate problems and support safe deployment
- Assess practices for building a learning and innovation culture

COURSE SYLLABUS

4 Modules, 32 Topics

01

2 Exercises

Introduction

TOPICS

- DevOps Defined
- High-Performance IT Organizations
- Core Chronic Conflict
- Business Value of DevOps

WHERE DEVOPS CAME FROM

- W Edwards Deming and Total Quality Management
- The Lean Movement and Toyota Production System
- The Agile Development and Infrastructure Movements
- The Continuous Delivery Movement
- IT Service Management and DevOps
- End Goals of DevOps and CALMS

02

Exercise

Maturing a DevOps Practice in the Enterprise

TOPICS

DevOps and Organizational Culture · 2 Patterns You Can Follow

THE INVOLVEMENT PRINCIPLE

Information Security Principles

Scaling DevOps in the Enterprise

03

3 Exercises

The DevOps Journey - The Three Ways

THE FIRST WAY: OPTIMIZE FLOW

Principles of Flow · Infrastructure As Code · Infrastructure Configuration Mgmt and Tools · Deployment Pipeline and Tools · Shared Version Control and Tools · Build Quality In · Containerization · SOA and Microservices

THE SECOND WAY: AMPLIFY FEEDBACK

Principles of Feedback · Telemetry Principles · System Monitoring Tools · Log Aggregation and Tools · Use Telemetry to Anticipate Problems · Feedback For Safe Deployment of Code · Hypothesis-Driven Development

THE THIRD WAY: CONTINUAL LEARNING AND EXPERIMENTATION

Learning Culture · Innovation Culture

04

Course Conclusion

TOPICS

Q and A

HANDS-ON EXERCISES

Practise What You Learn

#	MODULE	ACTIVITY
01	**Introduction**	■ Pain Points ■ Agile Infrastructure
02	**Maturing a DevOps Practice in the Enterprise**	The Involvement Principle
03	**The DevOps Journey - The Three Ways**	■ Optimizing Flow ■ Amplifying Feedback ■ Learning and Innovation Culture

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.

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