

DEVOPS PROFESSIONAL

TRAINING COURSE OUTLINE



Introduction

This level of the DevOps qualification scheme is aimed at anyone who wishes to become an efficient member of a DevOps environment.

Improve collaboration and communication

Candidates get guidance on how to work with DevOps practices and how to achieve better collaboration and communication. This course provides the candidate with solid knowledge and understanding of DevOps terms, principles, tools and practices, and how to use tools efficiently and effectively within a DevOps environment to achieve business goals, using a full-stack approach.

Improve workflow critical factors

Gain an understanding on the importance of communication, collaboration, integration, and automation in the DevOps movement, as critical factors, that improve the workflow between software developers and IT operations professionals and support organisations in their digital transformation journey.

Learn through hands-on guidance how the DevOps cultural and professional movement supports organisational efforts to reduce costs, while increasing agility, speed of execution, and output quality.

Duration

3 – days workshop

Learning Objectives

The learning objectives for DevOps Professional include an understanding of:

- ❖ History and Need of DevOps.
- ❖ Key concepts of DevOps.
- ❖ Business Value of DevOps.
- ❖ Concepts underlying C.A.L.M.S., The Three Ways, continuous delivery, and the scope of the full stack.
- ❖ DevOps culture, transformational leadership and DevOps structure and teaming.

- ❖ Evolution of the DevOps Practices and the 15 Essential Practices of DevOps.
- ❖ Agile Project Management and Scrum Methodology.
- ❖ Key concepts of cloud technology and virtualization, automation for deployment pipeline, and architecting for continuous delivery.
- ❖ The approach to build the DevOps management system and practice.
- ❖ Automation practices including deployment pipelines and DevOps toolchains.
- ❖ Scaling DevOps for the enterprise.
- ❖ Critical success factors and key performance indicators.

Target Audience

The target audience for the DevOps Professional course includes Management, Operations, Developers, QA and Testing professionals such as:

- ❖ Individuals involved in IT development, IT operations or IT service management.
- ❖ Individuals who require an understanding of DevOps principles.
- ❖ IT professionals working within, or about to enter, an Agile Service Design Environment.
- ❖ The following IT roles: Automation Architects, Application Developers, Business Analysts, Business Managers, Business Stakeholders, Change Agents, Consultants, DevOps Consultants, DevOps Engineers, Infrastructure Architects, Integration Specialists, IT Directors, IT Managers, IT Operations, IT Team Leaders, Lean Coaches, Network Administrators, Operations Managers, Project Managers, Release Engineers, Software Developers, Software Testers/QA, System Administrators, Systems Engineers, System Integrators, Tool Providers.

Training contents

Module 1: Introduction to DevOps

- ❖ What is DevOps?
- ❖ Why does DevOps matter?
- ❖ The DevOps Full Stack

- ❖ The Business Value Delivery Problem
- ❖ The IT Value Delivery Problem

Module 2: Key DevOps Principle & Concepts

- ❖ C.A.L.M.S & The Three Ways
- ❖ The Deployment Pipeline
- ❖ The Scope of DevOps

Module 3: The Full Stack – People & Culture

- ❖ Defining the DevOps Culture
 - Organizational Culture
 - Importance of Collaboration
- ❖ Transformational Leadership
 - What is Transformational Leadership
 - Transformation Leadership Principles
 - Teams
- ❖ DevOps Structures & Teaming
 - Organizational Models for DevOps
 - The Evolution of DevOps Teams
 - DevOps Requires Practical Specialists
 - Building a Cross-Functional Team

Module 4: The Full Stack – Processes & Practices

- ❖ The Evolution of DevOps Practices
- ❖ The 15 Essential Practices of DevOps
 - Voice of The Customer
 - Relationship Management
 - Lean Process Optimization
 - Value Stream Mapping
 - Knowledge Management
 - Visual Management
 - Agile Project Management & Scrum
 - Shift Left Testing
 - Change Control
 - Service Configuration Management

- Release & Deployment Management
- Incident Management
- Problem Management & Kaizen
- Continual Improvement
- Antifragility

Module 5: The Full Stack – Technology & Automation

- ❖ Automation for the Deployment Pipeline
 - ❖ Automation & The Full Stack
 - ❖ Deployment Pipeline Automation
 - ❖ Tools for A DevOps Toolchain
 - ❖ Stages of DevOps Automation
- ❖ Cloud Technology and Virtualization
 - The Emergence of Cloud Technology & Computing
 - Cloud Computing Deployment & Service Models
- ❖ Architecting for Continuous Delivery
 - Product & Platform Teams
 - Containerization & Microservices
 - Application Programming Interfaces (APIs)

Workshop: The class will be conducted with the series of workshops to help participant easies to understand and can apply knowledge to build the management system, and practice. The workshop can practice in the computer or in the paper, depending on the level of participant and learning objectives.

Prerequisites

Familiarity with IT terminology and IT related work experience are recommended.