Observability Foundation

(OBF)®

Understand the practices, methods, and tools to engage people across the organization involved in Observability by using real-life scenarios and case stories.

COURSE SYPNOSIS

Microservices and Cloud-Native architectures have been goals of many organizations to help increase speed and agility, but as complexity grows, systems become increasingly challenging to observe. When issues occur, these issues are often difficult to triage and identify the root causes.

This course introduces a range of practices for advancing resilience and how to architect end-to-end Observability for Cloud-Native applications. The advantages of building full-stack metrics, events, logs, and distributed tracing are introduced, along with the impact of DevSecOps on Observability and how AIOPs enhance Observability capabilities. This course also covers how Network and Security Observability plays a key role in building reliability, the key aspects of security operations and automated responses are covered,
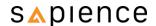
Gain tangible takeaways to leverage situations such as implementing MELT models effectively, that fit their organizational context, building distributed tracing and resiliency by design. The course is developed by leveraging key experts in the fields of telemetry, sources of knowledge and engaging with thought-leaders in the Observability space, and working with organizations who have crossed the chasm of modern Observability to extract real-life best practices.

This course positions learners to successfully complete the Observability Foundation certification

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COURSE DURATION

2 Days Instructor-Led Classroom Training

COURSE OBJECTIVES

On completion of this course, the following learning outcomes will be achieved:

- Implement an Observability culture in your organization
- Know the principles of Observability and differentiate with monitoring in modern architectures
- Understanding the three pillars of Observability
- Adopting open Telemetry standards
- Understand Observability Maturity Models
- Implementing full stack Observability and distributed tracing
- Observability using AI for incident management.
- Implementing Network, Container level Observability with security as a first-class citizen
- Time based Topology for Observability
- The Data paradox, and addressing data issues using a systematic approach
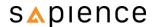- Observability practices for DevSecOps and SRE

WHO SHOULD ATTEND

The target audience for this course are professionals, such as:

- Anyone focused on large-scale service scalability and reliability
- Anyone interested in modern IT leadership and organizational change approaches
- Business Managers and Stakeholders
- Change Agents
- Consultants
- DevOps Practitioners
- IT Directors, Managers, Team Leaders
- Product Owners, Scrum Masters
- Software Engineers
- Site Reliability Engineers
- System Integrators
- Tool Providers

OUTLINE

- Exploring Observability
  - What is Observability?
  - MELT
  - Importance of Observability
  - Why Traditional Monitoring is not Enough
  - Observability Maturity Model
  - Challenges with Observability

- Pillars of Observability
  - Defining telemetry
  - The Three Pillars of Observability - Logs, metrics, and traces
  - Distributed Traces
  - Parts of a Trace
  - Tracing: Error Diagnosis

- Open Source Landscape for Observability
  - What is Observability made of?
  - OpenTelemetry
  - OpenTelemetry Libraries
  - OpenTelemetry Agents & Collection
  - The Rest of the Open Source Ecosystem

- Service Maps and Topology
  - Service maps
  - Topology
  - Time Travel Topology
  - Escalation Graphs
  - The 4 Ts

- DataOps Helps Get Observability Right
  - Observability and the Data Paradox
  - Why Observability need DataOps
  - Data Ownership and Governance
  - Data Privacy & Observability
  - Data Confidentiality, Integrity & Availability
  - Maintaining CIA Triad

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- ⚠ Building Observability with AIOps
  - What is AIOps
  - AIOps Platforms
  - Enterprise Platform for AIOps
  - AI/ML Use Cases
  - Auto-Instrumenting Optimization
  - Feedforward CI/CD into AIOPs
  - Feedback AIOps into Quality Gates

- ⚠ Security and Networking with Observability
  - Observing Security
  - Monitoring Security with eBPF
  - Container Security
  - Network Observability
  - Visibility and Integration of various sources

- ⚠ Observability Practices for DevOps and SRE
  - Observability Indicators
  - Dashboards and Visualization
  - Chaos Engineering

CERTIFICATION

Participants who successfully complete the course and pass the examination will be recognized as a certified Observability Foundation (OBF) practitioner. The certification is issued and maintained by DevOps Institute. Delegates who do not attain a passing score for the examination would be awarded a course attendance certificate only.

PRE-REQUISITES

It is highly recommended that learners attend the SRE Foundation course and attain the certification prior to attending this course. An understanding and knowledge of common SRE terminology, concepts, principles and related work experience are recommended.

PRE-COURSE READING

There are no pre-course reading resources or assignments prior to attending the course.

EXAMINATION FORMAT

- ⚠ 40 Multiple Choice
- ⚠ 1 mark per correct answer
- ⚠ 26 marks required to pass (out of 40 available) – 65%
- ⚠ Sixty minutes duration
- ⚠ Web-based Open-book exam

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