



# Reliability Testing & Continuous Verification

This course will take you through all aspects of **modern reliability testing and AI-powered continuous verification**. These practices span from **foundational performance** and **chaos testing** to **unified observability** strategies and **automation of Quality Gates**. Participants will explore how to integrate open observability standards, microservices monitoring, and intelligent test management into their DevOps workflows.

This edition introduces **practical implementations** using Grafana, Harness, k6, Gremlin, and the AI-SQUARE platform for comprehensive system insight and performance assurance.

With a shared passion for driving innovation and a wealth of hands-on experience, our experts are poised to show how our training program aligns perfectly with modern engineering and operations practices, preparing you to adopt and implement Unified Reliability Testing and AI-driven observability in complex, cloud-native environments.

## DAY 1 Foundations of Testing and Observability



- Performance Testing Foundation
- Performance Quality Gate
- Chaos Engineering Foundation



- Set up an environment for microservices: Harness, K8S
- Set up a monitoring environment for microservices : Grafana, Spring Boot, Open Telemetry
- Conduct performance tests on individual microservices and APIs: k6, Grafana
- Conduct stress tests and use the results for capacity planning: k6, Grafana
- Create a comprehensive load testing framework: k6, Harness

## DAY 2 AI-powered Open Observability



- Open Observability Foundation
- Pipeline-driven Unified Reliability Testing
- Agile & AI-driven Test Management (Squash)



- Basic principles of chaos engineering: Gremlin
- Design and execute more complex chaos experiments: failure flags.
- Test Management with Squash
- AI-SQUARE platform: Performance Quality Gate Verification
- AI-SQUARE platform: Root Cause Analysis

## DAY 3 Compliance & Holistic AI-powered Observability



- Continuous Compliance (Kosli)
- DevOps Change Management (ServiceNow)
- Multiple Quality Gates for Holistic Observability
- AI-Powered Functional Quality Gates Verification Automation



- Compliance verification and management with Kosli
- DevOps Change Management with ServiceNow
- AI-SQUARE holistic Observability: Knowledge Graph and Models
- AI-SQUARE holistic Observability: Functional Quality Gate Verification
- AI-SQUARE holistic Observability: Orchestration of Data and Models

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## Learning outcomes

This bootcamp allows you to understand and practice industrial techniques and practices to implement Unified Reliability Testing for complex systems covering Performance testing, Chaos Engineering, Open Observability and AI-powered Quality Gates verification. It will enable your teams to implement and optimize software verification and observability through advanced AI-powered techniques and practices.



## Your profile

- DevOps, SRE, System Infra Engineers
- Staging Decision Makers
- Quality – Operation – Processes Managers



## With knowledge in

- DevOps and Software Testing
- Software & System Engineering
- Container & Cloud Engineering

The Digital Innovation Academy offers **customizable, modular bootcamps—delivered online or onsite**—to fit your organization's unique needs and schedule.

### Reliability Testing & Continuous Verification

Load testing, Fault injection, Health checks, and Chaos engineering for Reliability in DevOps

### Effective SRE

Techniques, Practices and Culture Adoption and Implementation for Effective Site Reliability

### Effective MLOps

ML lifecycle from Training to Validation to Deployment and Monitoring through ML CI-CD pipelines

### Data Engineering

Learn how to use ML techniques and algorithms to automate and optimize DevOps processes



### ML & AI for DevOps

Learn how to use ML techniques and algorithms to automate and optimize DevOps processes

