# Site Reliability Engineering Practitioner (SREP)®

## TRAINING DATASHEET

**Introduces a range of practices for improving service reliability through a mixture of automation, organizational ways of working and business alignment. Tailored for those focused on large-scale service availability.**

## COURSE SYPNOSIS

The SRE (Site Reliability Engineering) Practitioner course introduces ways to economically and reliably scale services in an organization. It explores strategies to improve agility, cross-functional collaboration, and transparency of health of services towards building resiliency by design, automation and closed loop remediations.

The course aims to equip participants with the practices, methods, and tools to engage people across the organization involved in reliability through the use of real-life scenarios and case stories. Upon completion of the course, participants will have tangible takeaways to leverage when back in the office such as implementing SRE models that fit their organizational context, building advanced observability in distributed systems, building resiliency by design and effective incident responses using SRE practices.

The course is developed by leveraging key SRE sources, engaging with thought-leaders in the SRE space and working with organizations embracing SRE to extract real-life best practices and has been designed to teach the key principles & practices necessary for starting SRE adoption.

This course positions learners to successfully complete the SRE Practitioner certification exam.

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## COURSE DURATION

3 Days Instructor-Led Classroom Training

## COURSE OBJECTIVES

On completion of this course, the following learning outcomes achieved will include the practical understanding of:

- Practical view to successfully implement a flourishing SRE culture in your organization.
- Underlying principles of SRE and avoiding anti-patterns
- The organizational impact of SRE
- Acing the art of SLIs and SLOs in a distributed ecosystem
- Extending the usage of Error Budgets to innovate and avoid risks
- Building security and resilience by design in a distributed, zero-trust environment
- Implementing full stack observability, distributed tracing and an Observability-driven development culture
- Curating data using AI to move from reactive to proactive and predictive incident management
- Importance of Platform Engineering
- Implementing practical Chaos Engineering
- Major incident response responsibilities based on incident command framework
- Understanding why SRE can be considered as the purest implementation of DevOps
- SRE Execution model
- Understanding the SRE role and why reliability is everyone's problem
- SRE success story learnings

## OUTLINE

- SRE Anti-patterns
  - SRE in a distributed ecosystem
  - Avoiding SRE antipatterns
- SLO is a proxy for customer happiness
  - What has changed with SLOs?
  - SLIs and system boundaries
  - Error Budgets, velocity and risk
- Building secure and reliable systems
  - Non-Abstract Large Scale Design
  - Fault-tolerant designs
  - Designing for security, resiliency, scalability and changing landscapes
- Full-stack observability
  - Pillars of Observability
  - Observability MELT
  - Using Open Telemetry
- Platform Engineering and AIOps
  - Platform-centric approaches
  - Using DataOps and AIOps to improve resiliency
  - AIOps Simple Recipe
- SRE & Incident Response Management
  - Incident Command Framework
  - OODA Loop
  - SRE and closed-loop remediation
  - AI/ML and Swarming for better incident management
- Chaos Engineering
  - Chaos Engineering Defined
  - Myths of Chaos
  - Chaos Engineering Experiments and Resources
  - Game Day Basics and Exercises
- SRE is the purest form of DevOps
  - Key Principles of SRE
  - Metrics for Success
  - SRE Execution Models
  - Culture and behavioural skills
  - Transformations and SRE

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## WHO SHOULD ATTEND

The target audience for this course are professionals including:

- 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

## CERTIFICATION

Participants who successfully complete the course and pass the examination will be recognized as certified with Site Reliability Engineering Practitioner (SREP) issued and governed 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 with an accredited DevOps Institute Education Partner prior to attending the SRE Practitioner course. An understanding and knowledge of common SRE terminology, concepts, principles and related work experience are recommended.

The DevOps Institute SRE Foundation certification is a prerequisite to the SRE Practitioner exam.

## 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%
- Ninety minutes duration
- Web-based open-book exams

## CONTACT US

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