

## DOI Site Reliability Engineering Practitioner (SREP)<sup>TM</sup> Certificate Program

### Course Summary

#### Description

The SRE (Site Reliability Engineering) Practitioner course introduces ways to scale services economically and reliably 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.

#### Objectives and Topics

At the end of this course, students will have a practical understanding:

- Practical view of how to successfully implement a flourishing SRE culture in your organization
- The underlying principles of SRE and an understanding of what it is not in terms of anti-patterns, and how you become aware of them to avoid them
- The organizational impact of introducing SRE
- Acing the art of SLIs and SLOs in a distributed ecosystem and extending the usage of Error Budgets beyond the normal to innovate and avoid risks
- Building security and resilience by design in a distributed, zero-trust environment
- How do you implement full stack observability, distributed tracing and bring about an Observability-driven development culture
- Curating data using AI to move from reactive to proactive and predictive incident management. Also, how you use DataOps to build clean data lineage
- Why is Platform Engineering so important in building consistency and predictability of SRE culture
- Implementing practical Chaos Engineering
- Major incident response responsibilities for a SRE based on incident command framework, and examples of anatomy of unmanaged incidents
- Perspective of why SRE can be considered as the purest implementation of DevOps
- Understanding the SRE role and understanding why reliability is everyone's problem
- SRE success story learnings
- SRE Execution model

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### Course Summary (cont)

#### Audience

The target audience for the SRE Foundation course are professionals including:

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

#### Prerequisites

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

#### Duration

Three days

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### Course Outline

- I. *Practical view of how to successfully implement a flourishing SRE culture in your organization*
- II. *The underlying principles of SRE and an understanding of what it is not in terms of anti-patterns, and how you become aware of them to avoid them*
- III. *The organizational impact of introducing SRE*
- IV. *Acing the art of SLIs and SLOs in a distributed ecosystem and extending the usage of Error Budgets beyond the normal to innovate and avoid risks*
- V. *Building security and resilience by design in a distributed, zero-trust environment*
- VI. *How do you implement full stack observability, distributed tracing and bring about an Observability-driven development culture*
- VII. *Curating data using AI to move from reactive to proactive and predictive incident management. Also, how you use DataOps to build clean data lineage*
- VIII. *Why is Platform Engineering so important in building consistency and predictability of SRE culture*
- IX. *Implementing practical Chaos Engineering*
- X. *Major incident response responsibilities for a SRE based on incident command framework, and examples of anatomy of unmanaged incidents*
- XI. *Perspective of why SRE can be considered as the purest implementation of DevOps*
- XII. *Understanding the SRE role and understanding why reliability is everyone's problem*
- XIII. *SRE success story learnings*
- XIV. *SRE Execution model*