

# Site Reliability Engineering Practitioner (SRE)- accredited training with exam

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

## THE AIM OF A TRAINING PROJECT:

- 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 using 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.



## Purpose of the training

The target audience for the Site Reliability Engineering Practitioner 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
- 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



## Benefits of completing the training

Benefits for Individuals:

- Higher understanding of practical implementation of SRE culture
- Designing services for higher security and reliability
- Building fault-tolerant distributed ecosystems that can be tested for risks of disaster
- Building observability and intelligence in operations
- Broader skills-based capabilities that leverage the latest in automation
- Higher understanding of other roles and contributing towards creating a better workplace culture

Benefits for Organizations:

- Implementing SRE and DevOps in the right way leading to higher Business Value
- Enhanced stability and reliability of services
- Major improvement of the product in the development, deployment and operations life-cycle
- Increased balance between technical investment in reliability and customer experience
- Homogenous culture and greater synchronization between product, development and operational teams Improvements in staff morale and retention



## Examination method

The participants receive vouchers, which are valid for 6 months, for online exam.

Having completed the training, the participant receives an e-mail with guidelines how to register on the exam. The date is determined directly with PeopleCert, with the use of participant's account.

Online exam is conducted in the presence of proctor – a person from PeopleCert, who connects remotely with training participant's desktop and observes the course of exam via Internet camera.

The person who takes the exam is obliged to show the place where he is going to write the exam to proctor via Internet camera. Proctor checks if there are not any other persons and study aids in the room.



## Exam description

Site Reliability Engineering Practitioner exam:

- exam duration 90 minutes
- 40 multiple-choice questions
- Required 65%, 26 correct answers
- Opened book



## Expected Listener Preparation

It is highly recommended that learners attend the [SRE Foundation](#) course with an accredited DevOps Institute Education Partner and earn the SRE Foundation certification prior to attending the SRE Practitioner course and exam.

An understanding and knowledge of common SRE terminology, concepts, principles and related work experience are recommended.



## Training Language

- Training: English
- Materials: English
- Exam: English

## Training Includes

- Access to a platform with accredited training materials
- Voucher for the SRE Practitioner online exam

Additional options:

- Take2 re-sit exam: 200 zł

Attention: purchasing this option is only possible through Altkom Academy before the training.

## Duration

3 days / 24 hours

## Training agenda

### 1. Module 1: SRE Anti-patterns

- Rebranding Ops or DevOps or Dev as SRE
- Users notice an issue before you do
- Measuring until my Edge
- False positives are worse than no alerts
- Configuration management trap for snowflakes
- The Dogpile: Mob incident response
- Point fixing
- Production Readiness Gatekeeper
- Fail-Safe really?

### 2. Module 2: SLO is a Proxy for Customer Happiness

- Define SLIs that meaningfully measure the reliability of a service from a user's perspective
- Defining System boundaries in a distributed ecosystem for defining correct SLIs

- Use error budgets to help your team have better discussions and make better data-driven decisions
  - Overall, Reliability is only as good as the weakest link on your service graph
  - Error thresholds when 3rd party services are used
3. Module 3: Building Secure and Reliable Systems
- SRE and their role in Building Secure and Reliable systems
  - Design for Changing Architecture
  - Fault tolerant Design
  - Design for Security
  - Design for Resiliency
  - Design for Scalability
  - Design for Performance
  - Design for Reliability
  - Ensuring Data Security and Privacy
4. Module 4: Full-Stack Observability
- Modern Apps are Complex & Unpredictable
  - Slow is the new down
  - Pillars of Observability
  - Implementing Synthetic and End user monitoring
  - Observability driven development
  - Distributed Tracing
  - What happens to Monitoring?
  - Instrumenting using Libraries and Agents
5. Module 5: Platform Engineering and AIOps
- Taking a Platform Centric View solves Organizational scalability challenges such as fragmentation, inconsistency and unpredictability.
  - How do you use AIOps to improve Resiliency
  - How can DataOps help you in the journey
  - A simple recipe to implement AIOps
  - Indicative measurement of AIOps
6. Module 6: SRE & Incident Response Management
- SRE Key Responsibilities towards incident response
  - DevOps & SRE and ITIL
  - OODA and SRE Incident Response
  - Closed Loop Remediation and the Advantages
  - Swarming – Food for Thought
  - AI/ML for better incident management
7. Module 7: Chaos Engineering
- Navigating Complexity
  - Chaos Engineering Defined
  - Quick Facts about Chaos Engineering

- Chaos Monkey Origin Story
  - Who is adopting Chaos Engineering
  - Myths of Chaos
  - Chaos Engineering Experiments
  - GameDay Exercises
  - Security Chaos Engineering
  - Chaos Engineering Resources
8. Module 8: SRE is the Purest form of DevOps
- Key Principles of SRE
  - SREs help increase Reliability across the product spectrum
  - Metrics for Success
  - Selection of Target areas
  - SRE Execution Model
  - Culture and Behavioral Skills are key
  - SRE Case study