Site Reliability Engineering Foundation℠ Course

Course Description:

The course highlights the evolution of SRE and its future direction, and equips participants with the practices, methods, and tools to engage people across the organization involved in reliability and stability evidenced 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 understanding, setting and tracking Service Level Objectives (SLO's) and Service Level Indictors (SLI's).

DevOps Institute® and ITSM Academy® provides the course curriculum and the exam is provided through DevOps Institute®.

Course Objectives: Attendees acquire an understanding of:

- ✓ The history of SRE and its emergence at Google
- ✓ The inter-relationship of SRE with DevOps and other popular frameworks
- ✓ The underlying principles behind SRE
- ✓ Service Level Objectives (SLO's) and their user focus
- ✓ Service Level Indicators (SLI's) and the modern monitoring landscape
- ✓ Error budgets and the associated error budget policies
- ✓ Toil and its effect on an organization's productivity
- ✓ Some practical steps that can help to eliminate toil
- ✓ SRE tools, automation techniques and the importance of security
- ✓ Anti-fragility, our approach to failure and failure testing
- ✓ The organizational impact that introducing SRE brings

Audience: The primary audience for this course includes the following IT Professionals. (Min: 5, Max: 20)

- Anyone starting or leading a move towards increased 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, and Tool Providers

Course Length: 16 hours (can be 2-4 days based on customer schedule preference)

Prerequisites: An understanding and knowledge of common DevOps terminology and concepts and related work experience are recommended.

Course Materials:

- ✓ Instructor-led training, exercises, and assignment facilitation
- ✓ Learner Manual (excellent post-class reference)
- ✓ Participation in interactive exercises and discussions designed to apply concepts
- ✓ Sample exam and exam preparation
- ✓ Additional resources of information (Videos, Reports, Articles, Websites, Blogs, Books)
- ✓ Site Reliability Engineering Foundation examination provide by DevOps Institute

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Certification Exam:

Learners who choose to certify in this DevOps discipline will be equipped to earn the **Site Reliability Engineering Foundation Certification** by achieving a passing score (65%) on the 60-minute exam, consisting of 40 multiple choice questions. Participants are provided with an **exam voucher** so they can schedule the exam at their convenience after the course.

Course Outline: Site Reliability Engineering Foundation

Module 1: SRE Principles and Practices

- What is Site Reliability Engineering?
- SRE & DevOps: What is the Difference?
- SRE Principles & Practices

Module 2: Service Level Objectives & Error Budgets

- Service Level Objectives (SLO's)
- Error Budgets
- Error Budget Policies

Module 3: Reducing Toil

- What is Toil?
- Why is Toil Bad?
- Doing Something About Toil

Module 4: Monitoring and Service Level Indicators

- Service Level Indicators (SLI's)
- Monitoring
- Observability

Module 5: SRE Tools and Automation

- Automation Defined
- Automation Focus
- Hierarchy of Automation Types
- Secure Automation
- Automation Tools

Module 6: Anti-Fragility and Learning from Failure

- Why Learn from Failure
- Benefits of Anti-Fragility
- Shifting the Organizational Balance

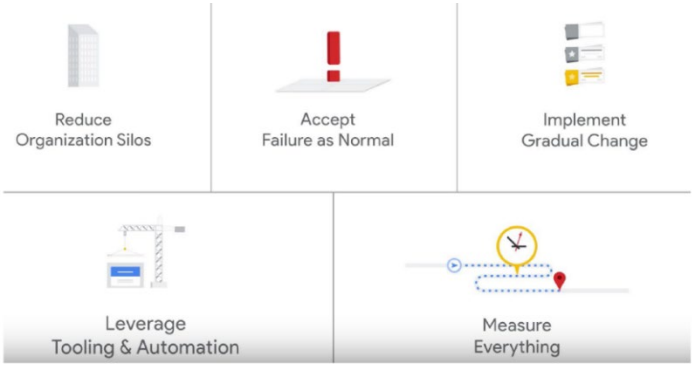
Module 7: Organizational Impact of SRE

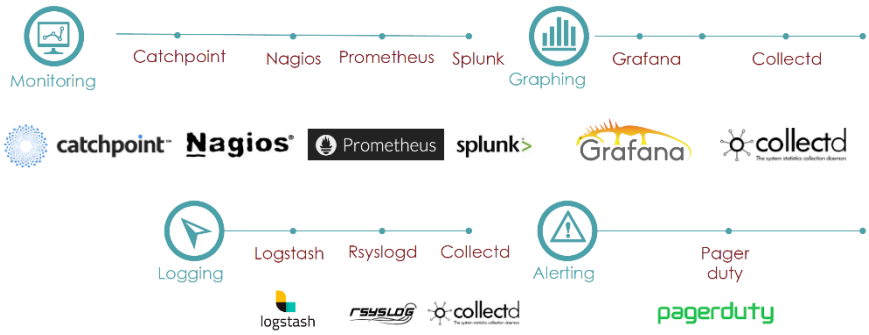
- Why Organizations Embrace SRE
- Patterns for SRE Adoption
- On-Call Necessities
- Blameless Post-Mortems
- SRE & Scale

Module 8: SRE, Other Frameworks, The Future

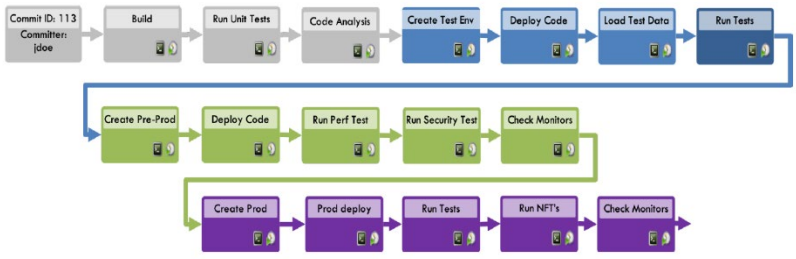
- SRE & Other Frameworks
- The Future

Five Key Pillars of SRE Success





Ensuring Secure Automation



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