

Red Hat Transformational Learning: Introduction to Pragmatic Site Reliability Engineering

Course Duration: 16 Hours

Course Code: TL011

1. Course Overview

- The **Red Hat Transformational Learning: Introduction to Pragmatic Site Reliability Engineering (SRE)** course introduces participants to the **core principles, cultural foundations, and practical approaches** of implementing SRE in modern enterprises. Unlike a purely academic overview, this course emphasizes **real-world, pragmatic practices** that balance **innovation and reliability** while aligning development and operations.
- Participants will learn how to apply **Service Level Indicators (SLIs), Service Level Objectives (SLOs), and error budgets** to improve system resilience. The course also covers **monitoring, automation, and incident response**, ensuring organizations can adopt SRE practices **without disrupting existing workflows**.

2. What You'll Learn

- Understand the **foundations and philosophy of Site Reliability Engineering**.
- Explore **practical, business-aligned methods** for SRE adoption.
- Define and implement **SLIs, SLOs, and error budgets**.
- Learn to reduce toil through **automation and monitoring**.
- Strengthen **observability and incident management practices**.

- Prepare your organization for **cultural transformation** towards SRE.
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3. Target Audience

- This course is designed for:
- IT leaders and managers planning **SRE adoption strategies**.
- **DevOps engineers, system administrators, and IT operations staff**.
- Technical architects transitioning toward **reliability-focused practices**.
- Organizations seeking to improve **service reliability, scalability, and uptime**.

4. Pre-Requisites

- Basic understanding of **DevOps practices and cloud-native environments**.
- Familiarity with **IT operations, monitoring, and automation**.
- General awareness of **service management concepts**.

5. Course Content

- **Module 1: Introduction to SRE Concepts**
- Origins and philosophy of SRE
- Key differences between SRE and DevOps
- The role of SRE in digital transformation

Module 2: Reliability and Business Value

- Why reliability matters
- Aligning SRE goals with business outcomes

- Balancing stability with innovation

Module 3: Core SRE Practices

- Service Level Indicators (SLIs)
- Service Level Objectives (SLOs)
- Error budgets and release strategies

Module 4: Observability and Incident Response

- Monitoring, metrics, logs, and traces
- Incident lifecycle and root cause analysis
- Postmortems and continuous improvement

Module 5: Reducing Toil with Automation

- Identifying and eliminating repetitive tasks
- Using automation for system reliability
- CI/CD integration in SRE

Module 6: Cultural and Organizational Transformation

- Shifting roles and responsibilities
- Building cross-functional collaboration
- Scaling SRE across enterprise environments