DEVOPS® INSTITUTE

Site Reliability Engineering (SRE) Foundation℠
BLUEPRINT

Site Reliability Engineering (SRE) is a discipline and a role that incorporates aspects of software engineering and applies them to infrastructure and operations problems to create ultra scalable and highly reliable distributed software systems.

Toil Reduction
Reduce Non-Value Add Work using Tooling, Automation, VSM, and Platform Engineering

SLAs/SLOs/SLIs
Metrics such as Availability, Latency, and Response Time with Error Budgets

Measurements
Observability, Monitoring, Telemetry, Instrumentation, and AIOps

Anti-Fragility
Improve Resilience using Fire Drills, Chaos Engineering, Security and Automation

Work Sharing
Address Technical Debt in Small Increments, Manage Load Percentage for Ops, Dev, and On-Call Work

Deployments
Progressive Deployments using Green/Blue, A/B, Canary Deployments, Automation Scripts, Testing and Monitoring

Performance Management
Monitoring, APM, Capacity Testing, Auto-Scaling, and AIOps

Incident Management
Emergency Response, On-Call, and Blameless Retrospectives

Culture
Reliability @ Scale, Shift-Left "Wisdom of Production", Learn from Failure, and Continuous Learning

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Plan → **Continuous Integration (CI)**: Backlog & Design → Code & Test → Commit & Merge → Build & Test → **Pipeline**: Artifacts → **Continuous Delivery / Deployment (CD)**: SAT & UAT → Approve Release → Deploy to Prod → Post-Prod tests → **Operate**