

### Certified SRE Practitioner (CSREP)

OEM: Global Skill Development Council • Duration: 3 Days (24 hrs) • Code: GSDC-CSREP

#### COURSE MODULES & TOPICS

##### 1 SRE Principles & Practices

- What is Site Reliability Engineering?
- Resilience and Reliability Planning
- SRE & DevOps: What is the Difference?
- SRE Principles & Practices
- Importance and need for this SRE role

##### 2 SLI/SLO/SLA & Error Budgets

- Service Level Objectives (SLOs)
- SLI – Indicators in Practice
- SLO vs SLA
- Guidance on setting SLOs and SLIs
- Control Measures
- Golden Signals
- Error Budgets
- Error Budget Policies

##### 3 Reducing Toil

- What is Toil?
- Why is Toil Bad?
- Doing Something About Toil
- How to identify a TOIL in our own space
- Technical Debt vs TOIL
- Types/categories of TOIL

##### 4 SRE Project Build & Transition Approach

- Why SRE to be involved in Build & Transition
- Design Assessment
- Potential Deliverables & Recommendations
- Production readiness review

- Risk Management — Identification, prioritization, and mitigation

## 5 High Availability and Capacity Planning

- High Availability Concept
- Business Continuity Management
- Considerable DR Scenarios
- High Availability and handling Unpredicted Load

## 6 SRE Tools & Automation

- Automation Defined (E2E Thinking)
- Automation Focus
- Hierarchy of Automation Types
- Secure Automation

## 7 DevOps CI/CD Toolchain and Pipeline

- SDLC Model
- Waterfall Model
- Agile
- Lean Development
- DevOps Principles
- DevOps vs SRE

## 8 Chaos Engineering

- What is Chaos Engineering?
- Chaos Test
- Alternate Chaos Test Tools

## 9 Communication and Collaboration

- Why proper communication is important
- Effective tools for Communication
- Agile Approach with Lean way

## 10 Testing for Reliability

- Relationships Between Testing and Mean Time to Repairs
- Types of Software Testing
- Creating a Test and Build Environment
- Testing at Scale
- Encourage Proactive Testing

## 11 Managing Incidents

- Why Organizations Embrace SRE
- Patterns for SRE Adoption
- Sustainable Incident Response
- Blameless Post-Mortems
- The Anatomy of an Unmanaged Incident
- Elements of Incident Management Process
- Best Practices for Incident Management

## 12 Emergency Response

- Process of Troubleshooting
- Effective Troubleshooting
- Common Pitfalls
- Effective handling of RCA with Problem Management

## 13 Effective Troubleshooting

- Sustainable Incident Response
- Blameless Post-Mortems
- SRE & Scale
- Practices followed by Cloud Service Providers to maintain reliability

## 14 Anti-Fragility & Learning from Failure

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

## 15 SRE, Other Frameworks, Trends

- SRE & Other Frameworks
- SRE Evolution
- Culture Setting for SRE
- Continuous Improvement cycle
- SRE After Go-live

## 16 Personalized 1-1 Trainer Session

- Personalized 1-on-1 Trainer Session with ongoing access to relevant topics and lifelong support