Site Reliability Engineering Training Syllabus

Section 1: Introduction
- ➤ What is Site Reliability Engineering?
- ➤ Why is it Important to learn?
- ➤ Introduction to Reliability and levels of Reliability
- ➤ Foundation of Reliability
- ➤ SRE with DevOps
- ➤ Map with Production Environment

Section 2: Site Reliability Engineering Overview
- ➤ Fundamentals and Terminology of SRE
- ➤ Principles of behind SRE
- ➤ Resilience and Reliability Planning
- ➤ Explanation about Software Engineering concepts
- ➤ Understanding Service Level Objectives SLOs
- ➤ Understanding SLAs
- ➤ Understanding Service Level Indicators SLIs
- ➤ Error Budgets
- ➤ Recovery Methods

Section 3: Incident Management
- ➤ What is Incident Management?
- ➤ Why It is Important?
- ➤ Role of SRE in Incident Management
- ➤ Key elements of Incident Management
- ➤ Unmanaged and Managed Incidents
- ➤ Understanding SRE adoption

Section 4: Eliminating Toil
- ➤ Introduction to Toil
- ➤ Types of Toil
- ➤ Categories of Toil

- ➢ How to find the Toil?
- ➢ How to reduce Toil with automation?

Section 5: Monitoring in SRE
- ➢ Introduction to Monitoring
- ➢ Types of Monitoring
- ➢ To create and Maintain Metrics
- ➢ Concepts of Alerts and Traces
- ➢ Monitoring Resource and Utilization

Section 6: Automation
- ➢ SRE tools
- ➢ Automation types
- ➢ Concepts of GUI
- ➢ CLI vs IAC
- ➢ Learning Automated Monitoring
- ➢ Learning Automation tools –like PowerShell, Power platform
- ➢ Use cases of Automation

Section 7: Troubleshooting
- ➢ Understanding the process of Troubleshooting
- ➢ Importance of Troubleshooting
- ➢ Developing the Runbooks
- ➢ Updating the Runbooks
- ➢ Analyzing Managing the logs

Section 8: Operations Management
- ➢ Concepts of Operation management
- ➢ Implement and Manage process for Backup and recovery
- ➢ Understanding Operational Readiness
- ➢ AI operations and AI Manager

Section 9: Deployments
- ➢ Learning Deployment Release Stages
- ➢ Continuous Integration

- ➢ Continuous Delivery
- ➢ ZDD models
- ➢ Using kubernetes concepts

Section 10: Security and Compliance
- ➢ Security information and event Management
- ➢ Monitoring security threats