DevOpsSchool

Course curriculum · November 2026

SRE · TRAINING PROGRAM

Site Reliability Engineering(SRE) Essential Course

A practical, hands-on Site Reliability Engineering(SRE) Essential Course curriculum: 490 topics. Learn live online in a small batch, as a private corporate batch, or self-paced with one year of LMS access.

LIVE ONLINE **Max 8-10 hours**	CORPORATE **Private team batch, on demand**	SELF-PACED VIDEO **1-year LMS access**
BATCH SIZE **Max 10 learners**	NEXT BATCHES **1st of every month · weekends: first Saturday**	CERTIFICATE **Verifiable certificate of completion**

INSIDE THIS CURRICULUM

Who should attend	Objectives, audience, prerequisites
Agenda	490 topics
Formats and fees	Live, 1:1, self-paced, corporate
Trainer and reviews	Rajesh Kumar
Enrolment	Batches, payment, contacts

WHY DEVOPSSCHOOL

- Rated 4.6 on Google
- 1,500+ verifiable certificates issued in the public registry
- Trainer Rajesh Kumar: 20 years in industry
- Small batches: max 10 learners, every session recorded

Course page: www.devopsschool.com/courses/sre/site-reliability-engineering-sre-essential.html
Talk to us: WhatsApp +91 99057 40781 · +1 (469) 756-6329 · contact@DevOpsSchool.com · reply within 1 hour

COURSE FIT

Who this program is for

Use this page to decide whether Site Reliability Engineering(SRE) Essential Course matches your role and experience.

1

Objectives

Understand the core concepts and usage model, apply practical workflows through examples and guided tasks, and prepare for implementation, certification or team adoption.

2

Who should attend

Developers, DevOps engineers, administrators, SREs, security engineers, platform teams, release teams, technical leads and corporate teams working with this topic.

3

Before you start

Basic computer literacy and awareness of software, operations, cloud, DevOps or security workflows is helpful. Deep programming experience is not needed unless the topic requires it.

AGENDA AT A GLANCE · 490 TOPICS

Core curriculum

490 topics · SDLC Models & Architecture with Agile, DevOps, SRE & DevSecOps, SOA & Micro se

AGENDA · 490 TOPICS

Site Reliability Engineering(SRE) Essential Course agenda

Live online batches run for max 8-10 hours; corporate batches are planned with your team.

CORE CURRICULUM

490 topics

1. SDLC Models & Architecture with Agile, DevOps, SRE & DevSecOps, SOA & Micro services - Concept
2. Let’s Understand about Software Development Model
3. Overview of Waterfall Development Model
4. Challenges of Waterfall Development Model
5. Overview of Agile Development Model
6. Challenges of Agile Development Model
7. Requirement of New Software Development Model
8. Understanding an existing Pain and Waste in Current Software Development Model
9. What is DevOps?
10. Transition in Software development model
11. Waterfall -> Agile -> CI/CD -> DevOps -> DevSecOps
12. Understand DevOps values and principles
13. Culture and organizational considerations
14. Communication and collaboration practices
15. Improve your effectiveness and productivity
16. DevOps Automation practices and technology considerations
17. DevOps Adoption considerations in an enterprise environment
18. Challenges, risks and critical success factors
19. What is DevSecOps?
20. Let’s Understand DevSecOps Practices and Toolsets.
21. What is SRE?
22. Let’s Understand SRE Practices and Toolsets.
23. List of Tools to become Full Stack Developer/QA/SRE/DevOps/DevSecOps
24. Microservices Fundamentals
25. Microservices Patterns
26. Choreographing Services
27. Presentation components
28. Business Logic
29. Database access logic
30. Application Integration
31. Modelling Microservices
32. Integrating multiple Microservices
33. Keeping it simple
34. Avoiding Breaking Changes
35. Choosing the right protocols
36. Sync & Async

37. Dealing with legacy systems
38. Testing
39. What and When to test
40. Preparing for deployment
41. Monitoring Microservice Performance
42. Tools used for Microservices Demo using container
43. Platform - Operating Systems - Centos/Ubuntu & VirtualBox & Vagrant
44. Ubuntu
45. Installing CentOS7 and Ubuntu
46. Accessing Servers with SSH
47. Working at the Command Line
48. Reading Files
49. Using the vi Text Editor
50. Piping and Redirection
51. Archiving Files
52. Accessing Command Line Help
53. Understanding File Permissions
54. Accessing the Root Account
55. Using Screen and Script
56. Overview of Hypervisor
57. Introduction of VirtualBox
58. Install VirtualBox and Creating CentOS7 and Ubuntu Vms
59. Vagrant
60. Understanding Vagrant
61. Basic Vagrant Workflow
62. Advance Vagrant Workflow
63. Working with Vagrant VMs
64. The Vagrantfile
65. Installing Nginx
66. Provisioning
67. Networking
68. Sharing and Versioning Web Site Files
69. Vagrant Share
70. Vagrant Status
71. Sharing and Versioning Nginx Config Files
72. Configuring Synced Folders
73. Platform - Cloud - AWS
74. Introduction of AWS
75. Understanding AWS infrastructure
76. Understanding AWS Free Tier
77. IAM: Understanding IAM Concepts

78. IAM: A Walkthrough IAM
79. IAM: Demo & Lab
80. Computing:EC2: Understanding EC2 Concepts
81. Computing:EC2: A Walkthrough EC2
82. Computing:EC2: Demo & Lab
83. Storage:EBS: Understanding EBS Concepts
84. Storage:EBS: A Walkthrough EBS
85. Storage:EBS: Demo & Lab
86. Storage:S3: Understanding S3 Concepts
87. Storage:S3: A Walkthrough S3
88. Storage:S3: Demo & Lab
89. Storage:EFS: Understanding EFS Concepts
90. Storage:EFS: A Walkthrough EFS
91. Storage:EFS: Demo & Lab
92. Database:RDS: Understanding RDS MySql Concepts
93. Database:RDS: A Walkthrough RDS MySql
94. Database:RDS: Demo & Lab
95. ELB: Elastic Load Balancer Concepts
96. ELB: Elastic Load Balancer Implementation
97. ELB: Elastic Load Balancer: Demo & Lab
98. Networking:VPC: Understanding VPC Concepts
99. Networking:VPC: Understanding VPC components
100. Networking:VPC: Demo & Lab
101. Platform - Containers - Docker
102. What is Containerization?
103. Why Containerization?
104. How Docker is good fit for Containerization?
105. How Docker works?
106. Docker Architecture
107. Docker Installations & Configurations
108. Docker Components
109. Docker Engine
110. Docker Image
111. Docker Containers
112. Docker Registry
113. Docker Basic Workflow
114. Managing Docker Containers
115. Creating our First Image
116. Understading Docker Images
117. Creating Images using Dockerfile
118. Managing Docker Images

119. Using Docker Hub registry
120. Docker Networking
121. Docker Volumes
122. Deepdive into Docker Images
123. Deepdive into Dockerfile
124. Deepdive into Docker Containers
125. Deepdive into Docker Networks
126. Deepdive into Docker Volumes
127. Deepdive into Docker Volume
128. Deepdive into Docker CPU and RAM allocations
129. Deepdive into Docker Config
130. Docker Compose Overview
131. Install & Configure Compose
132. Understanding Docker Compose Workflow
133. Understanding Docker Compose Services
134. Writing Docker Compose Yaml file
135. Using Docker Compose Commands
136. Docker Compose with Java Stake
137. Docker Compose with Rails Stake
138. Docker Compose with PHP Stake
139. Docker Compose with Nodejs Stake
140. Planning and Designing - Jira & Confulence
141. Overview of Jira
142. Use cases of Jira
143. Architecture of Jira
144. Installation and Configuraration of Jira in Linux
145. Installation and Configuraration of Jira in Windows
146. Jira Terminologies
147. Understanding Types of Jira Projects
148. Working with Projects
149. Working with Jira Issues
150. Adding Project Components and Versions
151. Use Subtasks to Better Manage and Structure Your Issues
152. Link Issues to Other Resources
153. Working in an Agile project
154. Working with Issues Types by Adding/Editing/Deleting
155. Working with Custom Fields by Adding/Editing/Deleting
156. Working with Screens by Adding/Editing/Deleting
157. Searching and Filtering Issues
158. Working with Workflow basic
159. Introduction of Jira Plugins and Addons.

160. Jira Integration with Github
161. Exploring Confluence benefits and resources
162. Configuring Confluence
163. Navigating the dashboard, spaces, and pages
164. Creating users and groups
165. Creating pages from templates and blueprints
166. Importing, updating, and removing content
167. Giving content feedback
168. Watching pages, spaces, and blogs
169. Managing tasks and notifications
170. Backing up and restoring a site
171. Admin tasks
172. Add/Edit/Delete new users
173. Adding group and setting permissions
174. Managing user permissions
175. Managing addons or plugins
176. Customizing confluence site
177. Installing Confluence
178. Evaluation options for Confluence
179. Supported platforms
180. Installing Confluence on Windows
181. Activating Confluence trial license
182. Finalizing Confluence Installation
183. Source Code Versioning - Git using Github
184. Introduction of Git
185. Installing Git
186. Configuring Git
187. Git Concepts and Architecture
188. How Git works?
189. The Git workflow
190. Working with Files in Git
191. Adding files
192. Editing files
193. Viewing changes with diff
194. Viewing only staged changes
195. Deleting files
196. Moving and renaming files
197. Making Changes to Files
198. Undoing Changes
199. Reset
200. Revert

201. Amending commits
202. Ignoring Files
203. Branching and Merging using Git
204. Working with Conflict Resolution
205. Comparing commits, branches and workspace
206. Working with Remote Git repo using Github
207. Push - Pull - Fetch using Github
208. Tagging with Git
209. Webserver - Apache HTTP & Nginx
210. Apache HTTP
211. Introduction to web server
212. Install Apache on CentOS 7.4
213. Enable Apache to automatically start when system boot
214. Configure the firewall service
215. Where is Apache?
216. Directory structure
217. Apache directory structure
218. Configuration file
219. Create your first page
220. Virtual hosts
221. Setting up the virtual host - name based
222. Setting up the virtual host - port based
223. Using aliases and redirecting
224. Configuring an alias for a url
225. Redirects
226. Logging
227. The error log
228. The access log
229. Custom log
230. Log rotation
231. Security
232. Basic Security - Part 1
233. Basic Security - Part 2
234. Set up TLS/SSl for free
235. Basic authentication
236. Digest authentication
237. Access Control
238. .htaccess (Administrator Side)
239. .htaccess (User Side)
240. Install and Configure antivirus
241. Mitigate dos attacks - mod_evasive

242. Apache Performance and Troubleshooting
243. Apache Multi-Processing Modules (MPMs)
244. Adjusting httpd.conf - Part 1
245. Adjusting httpd.conf - Part 2
246. Troubleshoot Apache (Analyz Access Log) - Part 1
247. Troubleshoot Apache (Analyze Access Log) - Part 2
248. Use Apachetop to monitor web server traffic
249. Nginx
250. Overview
251. Introduction
252. About NGINX
253. NGINX vs Apache
254. Test your knowledge
255. Installation
256. Server Overview
257. Installing with a Package Manager
258. Building Nginx from Source & Adding Modules
259. Adding an NGINX Service
260. Nginx for Windows
261. Configuration
262. Understanding Configuration Terms
263. Creating a Virtual Host
264. Location blocks
265. Variables
266. Rewrites & Redirects
267. Try Files & Named Locations
268. Inheritance & Directive types
269. PHP Processing
270. Worker Processes
271. Buffers & Timeouts
272. Adding Dynamic Modules
273. Performance
274. Headers & Expires
275. Compressed Responses with gzip
276. FastCGI Cache
277. HTTP2
278. Server Push

HTTPS (SSL)

279. Rate Limiting
280. Basic Auth
281. Hardening Nginx

282. Let's Encrypt - SSL Certificates
283. Configuration & Deployment Management - Ansible
284. Overflow of Configuration Management
285. Introduction of Ansible
286. Ansible Architecture
287. Let’s get startted with Ansible
288. Ansible Authentication & Authorization
289. Let’s start with Ansible Adhoc commands
290. Let’s write Ansible Inventory
291. Let’s write Ansible Playbook
292. Working with Popular Modules in Ansible
293. Deep Dive into Ansible Playbooks
294. Working with Ansible Variables
295. Working with Ansible Template
296. Working with Ansible Handlers
297. Roles in Ansible
298. Ansible Galaxy
299. Container Orchestration - Kubernetes & Helm Introduction
300. Understanding the Need of Kubernetes
301. Understanding Kubernetes Architecture
302. Understanding Kubernetes Concepts
303. Kubernetes and Microservices
304. Understanding Kubernetes Masters and its Component
305. kube-apiserver
306. etcd
307. kube-scheduler
308. kube-controller-manager
309. Understanding Kubernetes Nodes and its Component
310. kubelet
311. kube-proxy
312. Container Runtime
313. Understanding Kubernetes Addons
314. DNS
315. Web UI (Dashboard)
316. Container Resource Monitoring
317. Cluster-level Logging
318. Understand Kubernetes Terminology
319. Kubernetes Pod Overview
320. Kubernetes Replication Controller Overview
321. Kubernetes Deployment Overview
322. Kubernetes Service Overview

323. Understanding Kubernetes running environment options
324. Working with first Pods
325. Working with first Replication Controller
326. Working with first Deployment
327. Working with first Services
328. Introducing Helm
329. Basic working with Helm
330. Infrastructure Coding - Terraform
331. Deploying Your First Terraform Configuration
332. What's the Scenario?
333. Terraform Components
334. Updating Your Configuration with More Resources
335. Terraform State and Update
336. Data Type and Security Groups
337. Configuring Resources After Creation
338. Terraform Provisioners
339. Terraform Syntax
340. Adding a New Provider to Your Configuration
341. Terraform Providers
342. Terraform Functions
343. Intro and Variable
344. Resource Creation
345. Deployment and Terraform Console
346. Updated Deployment and Terraform Commands
347. Services mesh Data planes & Control Planes - Envoy & Istio
348. Envoy
349. What is Envoy
350. Architecture overview
351. Life of a Request
352. Deployment types
353. Getting help
354. Getting Started
355. Quick Start to Run Simple Example
356. Simple Configuration
357. Using the Envoy Docker Image
358. Sandboxes
359. Other use cases
360. Building and installation
361. Building
362. Reference configurations
363. Tools

364. Istio
365. Managing Service Traffic
366. o Understanding VirtualServices, DestinationRules, and Subsets
367. o A Dark Launch for a New Feature
368. o Using Gateways with VirtualServices to Mange External Traffic
369. o A Blue/Green Deployment
370. o Configuring Canary Deployments with Traffic Weighting
371. o Canary Deployments with and without Cookies
372. o Managing Traffic for Application Health with a Circuit Breaker
373. o Circuit Breaker with Outlier Detection
374. Securing Communication with Mutual TLS
375. o Understanding Mutual TLS and Istio Policies
376. o Securing Services with Mutual TLS
377. o Using AuthorizationPolicy to Secure Access to Services
378. o Service Authorization with mTLS
379. o Applying Policies to Secure End-user Access
380. o End-user Authorization with JWT
381. Observing the Service Network
382. o Understanding the Telemetry Flow through Istio
383. o Visualizing the Service Mesh
384. o Dashboards for Services and Istio
385. o Capturing OpenTelemetry Headers for Distributed Tracing
386. o Distributed Tracing
387. o Integrating Istio with Your Logging Stack
388. o Logging with Fluentd and Kibana
389. Running Istio in Production
390. o Considerations for Deploying Istio in Production
391. o Configuring and Deploying Istio in Production
392. o Deploying BookInfo to Production
393. o Migrating Live Applications to Istio
394. o Migrating to Istio with mTLS, Authorization and Ingress
395. o Understanding Potential Failure Scenarios
396. o Do You Need a Service Mesh?
397. Network configurations and Service Discovery - Consul
398. Why Consul?
399. Modern Ops Challenges
400. An Explosion of Services
401. First Class Service Discovery
402. Distributed Failure Detection
403. Reactive Configuration via Key/Value Store
404. Multi Datacenter Aware

405. Lets understand Continuous Integration
406. What is Continuous Integration
407. Benefits of Continuous Integration
408. What is Continuous Delivery
409. What is Continuous Deployment
410. Continuous Integration Tools
411. Vault Concepts and Use Cases
412. Vault Comparison
413. Installing Vault
414. Installing Vault Demo
415. Starting a Dev Server
416. Basic Secret Management
417. Managing Secrets Demo
418. Integrations
419. Infrastructure
420. Host Map
421. Events
422. Dashboards
423. Prometheus
424. Introduction to Prometheus
425. Prometheus installation
426. Grafana with Prometheus Installation
427. Installing on Ubuntu / Debian
428. Installing on Centos / Redhat
429. Installing on Windows
430. Installing on Mac
431. Installing using Docker
432. Building from source
433. Upgrading
434. Administration Configuration Authentication Permissions Grafana CLI Internal metrics Provisioning Troubleshooting Log Monitoring Tool 1 - Splunk
435. What Is Splunk?
436. Machine Data
437. Splunk Architecture
438. Careers in Splunk
439. Introduction to Elasticsearch
440. Overview of the Elastic Stack (ELK+)
441. Elastic Stack
442. Introduction and Overview of NewRelic
443. What is Application Performance Management?
444. Understanding a need of APM

445. Understanding transaction traces
446. What is Application Performance?
447. APM Benefits
448. APM Selection Criteria
449. Why NewRelic is best for APM?
450. What is NewRelic APM?
451. How does NewRelic APM work?
452. NewRelic Architecture
453. NewRelic Terminology
454. Installing and Configuring NewRelic APM Agents for Application
455. Register a Newrelic Trial account
456. Installing a JAVA Agent to Monitor your Java Application
457. Installing a PHP Agent to Monitor your PHP Application
458. Installing New Relic Agent for .NET Framework Application
459. Installing a Docker based Agent to Monitor your Docker based Application
460. Understanding of NewRelic Configration settings of newrelic.yml
461. Understanding of NewRelic Agent Configration settings
462. Working with NewRelic Dashboard
463. Understanding a transactions
464. Understanding Apdex and Calculating and Setting Apdex Threshold
465. Understanding Circuit break
466. Understanding Throughput
467. Newrelic default graphs
468. Understanding and Configuring Service Maps
469. Understanding and Configuring JVM
470. Understanding Error Analytics
471. Understanding Violations
472. Understanding and Configuring Deployments
473. Understanding and Configuring Thread Profiler
474. Depp Dive into Transaction Traces
475. Profiling with New Relic
476. Creating and managing Alerts
477. Working with Incidents
478. Sending NewRelic Alerts to Slack
479. Assessing the quality of application deployments
480. Monitoring using Newrelic
481. View your applications index
482. APM Overview page
483. New Relic APM data in Infrastructure
484. Transactions page
485. Databases and slow queries

486. Viewing slow query details
487. External services page
488. Agent-specific UI
489. Viewing the transaction map
490. Videos Only

HOW YOU CAN LEARN

Formats and fees

The same agenda in four formats. Fees are in Indian rupees as of November 2026; the course page shows them in your currency.

FORMAT	DURATION	WHAT YOU GET	FEE
Live & interactive (online)	Max 8-10 hours	Instructor-led public batch of max 10 learners with demos, labs, Q&A and assignment review. Weekday batches start on the 1st of every month, weekend batches on the first Saturday of every month.	**INR 34,999**
1:1 live training (online)	Max 8-10 hours, one-to-one	The same agenda, taught one-to-one by the trainer. Starts immediately, without waiting for the next batch; sessions planned around your working hours, at your pace.	**INR 99,999**
Self-paced video	1-year LMS access	This program plus 20+ more courses and 50+ tools, at your own pace.	**INR 833/month** billed yearly at INR 9,996
Corporate	Planned with your team	A private batch for your team, on demand, with examples mapped to your platforms.	**Quote on request**

ASSESSMENT AND CERTIFICATE

Your progress is checked through hands-on tasks and assignments. On completion you receive a DevOpsSchool certificate of completion with a unique credential ID that anyone can verify at devopsschool.com/certificates.

INCLUDED WITH EVERY LIVE BATCH

- Every live session is recorded and stays in your LMS for a year.
- Can't attend your batch? Move to next month's batch.
- Free demo class before you pay.
- Free 10-15 minute call with an advisor or the trainer to check the course fits you.

YOUR TRAINER

Learn from Rajesh Kumar

Principal Architect, trainer and mentor in DevOps, SRE, DevSecOps and platform engineering, with 20 years across 8+ software MNCs, including Staff DevOps/SRE Engineer for a leading Japanese mobile-payment platform and Principal DevOps Architect and Manager in Europe.

Profile: www.rajeshkumar.xyz · Videos: youtube.com/@TheDevOpsSchool

20 years in industry	**200+** corporate trainings
10,000+ engineers mentored	**70+** organisations coached

REVIEWS

What learners say

Rated 4.6 on Google · more reviews at devopsschool.com/testimonials and in our video testimonials.

> “Rajesh is very good trainer. Rajesh was able to resolve our queries and question effectively. We really liked the hands-on examples covered during this training program.”
>
> Indrayani, India

> “The training was very useful and interactive. Rajesh helped develop the confidence of all.”
>
> Abhinav Gupta, Pune

START YOUR TRAINING

Join the next batch

Weekday batches start on the 1st of every month and weekend batches on the first Saturday of every month, with max 10 learners each. 1:1 training can start immediately; corporate batches run on demand. We reply within 1 hour.

Pay by UPI, credit and debit cards, net banking or PayPal. Before you pay, read our refund policy. All courses: www.devopsschool.com/courses/

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