
Site Reliability Engineer (SRE) Interview Preparation Guide

This repository is an attempt to consolidate useful resources for Site Reliability Engineer (SRE) interview preparation.

Contributing

Please take a look at the contribution guidelines first. Contributions are always welcome!

Basics

- ☐ Simple: What happens when you type in 'www.cnn.com' in your browser?
- ☐ Detailed: What happens when you type google.com into your browser's address box and press enter?

Linux

- ☐ Introduction to Linux – Full Course for Beginners
- ☐ What every SRE should know about GNU/Linux shell related internals: file descriptors, pipes, terminals, user sessions, process groups and daemons
- ☐ SRE deep dive into Linux Page Cache

Boot Process

- ☐ How Does Linux Boot Process Work?
- ☐ An introduction to the Linux boot and startup processes
- ☐ What happens when we turn on computer?
- ☐ What happens when we turn on computer?
- ☐ From Power up to login prompt

Filesystem

- ☐ Understanding Inodes
- ☐ Understand UNIX / Linux Inodes Basics with Examples
- ☐ Understanding proc filesystem
- ☐ Common Mount Options
- ☐ Understanding Linux filesystems: ext4 and beyond

Kernel

- ☐ Explain the basics of Linux kernel
- ☐ Kernel Space and User Space
- ☐ Linux Kernel Process Management
- ☐ Linux Addressing
- ☐ Linux Kernel Memory Management
- ☐ STACK AND HEAP
- ☐ Paging and Segmentation
- ☐ Linux Kernel System Calls
- ☐ The Virtual Filesystem
- ☐ Concurrency and Race Conditions
- ☐ Memory Leak
- ☐ What is a kernel Panic?
- ☐ Book about the linux kernel

Troubleshooting

- ☐ Linux troubleshooting tools
- ☐ Linux Performance Analysis in 60,000 Milliseconds
- ☐ strace
- ☐ lsof
- ☐ Linux system debugging
- ☐ SaaS where users can test their Linux troubleshooting skills

Networking

- ☐ The Internet explained from first principles
- ☐ Network protocols for anyone who knows a programming language
- ☐ Introduction to Linux interfaces for virtual networking
- ☐ Multi-tier load-balancing with Linux
- ☐ Introduction to modern network load balancing and proxying
- ☐ Load Balancing Algorithms

Containers

- ☐ Introduction to Docker and Containers

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- ☐ Containers Patterns
 - ☐ Docker Container Anti Patterns
 - ☐ Anti-Patterns When Building Container Images

Kubernetes

- ☐ Deploying and Scaling Microservices with Docker and Kubernetes
- ☐ Demystifying the Kubernetes Iceberg
- ☐ What happens when ... Kubernetes edition!
- ☐ Kubernetes Production Patterns
- ☐ Kubernetes production best practices
- ☐ A Guide to the Kubernetes Networking Model
- ☐ 47 Things To Become a Kubernetes Expert
- ☐ Kubernetes Best Practices 101
- ☐ 15 Kubernetes Best Practices Every Developer Should Know
- ☐ THE KUBERNETES NETWORKING GUIDE
- ☐ The life of a DNS query in Kubernetes

Infrastructure as code / Configuration management

- ☐ Terraform
- ☐ A Comprehensive Guide to Terraform
- ☐ Ansible
- ☐ Getting Started With Terraform on AWS
- ☐ Google Cloud: Best practices for using Terraform

Databases

- ☐ Things You Should Know About Databases
- ☐ 7 Database Paradigms
- ☐ CAP theorem
- ☐ Evolutionary Database Design
- ☐ ACID vs BASE in Databases
- ☐ Understanding Database Sharding
- ☐ Database Replication
- ☐ SQL vs. NoSQL Database: When to Use, How to Choose
- ☐ How do database indexes work?

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- ☐ Redis Explained
 - ☐ Database Sharding Explained

CI/CD

- ☐ Continuous Integration
- ☐ 7 Pipeline Design Patterns for Continuous Delivery
- ☐ CI/CD patterns
- ☐ Six Strategies for Application Deployment

Clouds

- ☐ The Open Guide to Amazon Web Services
- ☐ Learning Azure
- ☐ Hands-On Training with GCP

Programming

Python

- ☐ Python Basics
- ☐ Python For Everyone
- ☐ Complete Python Tutorial

Go (Golang)

- ☐ A tour of Go
- ☐ Go by Example
- ☐ Go Tutorials & Examples
- ☐ Learn Go with Tests
- ☐ Getting up and running with Go
- ☐ Effective Go
- ☐ Go Design Patterns
- ☐ Go Memory Management
- ☐ Style Guide
- ☐ Style Decisions
- ☐ Best Practices

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- ☐ 50 Shades of Go: Traps, Gotchas, and Common Mistakes for New Golang Devs

Big O Notation, Algorithms and Data Structures

- ☐ AlgoExpert
- ☐ Hacking a Google Interview – Handout 1
- ☐ Hacking a Google Interview – Handout 2
- ☐ Hacking a Google Interview – Handout 3

System design

- ☐ SystemsExpert course from AlgoExpert
- ☐ System Design 101
- ☐ Grokking the System Design Interview
- ☐ The System Design Primer
- ☐ Crack the System Design Interview
- ☐ System design interview for IT companies
- ☐ Web Architecture 101
- ☐ What's in a Production Web Application?
- ☐ Distributed systems
- ☐ Failover
- ☐ Monoliths, Service Architecture, and Microservices
- ☐ Scale From Zero To Millions Of Users

System design examples

- ☐ Designing WhatsApp
- ☐ Designing Uber
- ☐ Designing Tinder
- ☐ Designing Instagram
- ☐ Designing Netflix

Monitoring

- ☐ SLOs & You: A Guide To Service Level Objectives
- ☐ Setting up Service Monitoring — The Why's and What's
- ☐ How NOT to Measure Latency

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- ☐ The four Golden Signals of Kubernetes monitoring

Prometheus

- ☐ Introduction to Prometheus
- ☐ Prometheus Relabeling Training
- ☐ Avoid These 6 Mistakes When Getting Started With Prometheus
- ☐ A Deep Dive Into the Four Types of Prometheus Metrics
- ☐ How Prometheus Querying Works
- ☐ PromQL Cheat Sheet

Processes

- ☐ The practical guide to incident management
- ☐ Incident Response
- ☐ Postmortems
- ☐ Runbooks
- ☐ Identifying and tracking toil using SRE principles
- ☐ Building SRE from Scratch
- ☐ SRE at Google: Our complete list of CRE life lessons
- ☐ Incident Management vs. Incident Response - What's the Difference?
- ☐ Practical Guide to SRE: Using SLOs to Increase Reliability
- ☐ Practical Guide to SRE: Automating On-Call
- ☐ Going from Zero to SRE
- ☐ An Incident Command Training Handbook
- ☐ Howie guide to post-incident investigations
- ☐ Rundown of LinkedIn's SRE practices
- ☐ Rundown of Uber's SRE practice
- ☐ SRE in the Real World
- ☐ SRE Engagement Models
- ☐ SRE Checklist
- ☐ Why bother with SLI and SLO?
- ☐ The System Resiliency Pyramid
- ☐ 10 Tips for Onboarding New SRE Hires
- ☐ Starting SRE at startups and smaller organizations

Resume

- ☐ SRE Complete Resume Writing Guide

Interview

SRE interview process

- ☐ How to hire talent
- ☐ Recruitment process for a Google job (SRE, Site Reliability Engineer)

Interview Questions

- ☐ A collection of questions to practice with for SRE interviews
- ☐ SRE Interview Questions
- ☐ Sysadmin Test Questions
- ☐ Kubernetes job interview questions
- ☐ DevOps Guide
- ☐ Questions I ask in SRE interviews
- ☐ DevOps Roadmap: Learn to become a DevOps Engineer or SRE
- ☐ The Must-Know Terraform Interview Questions

Blogposts

- ☐ SRE Interviews in Silicon Valley
- ☐ Preparing the SRE interview
- ☐ How to Get Into SRE
- ☐ My Job Interview at Google
- ☐ Path to Site Reliability Management
- ☐ Becoming a Site Reliability Engineer
- ☐ How I get a job at Google as SRE
- ☐ Become A DevOps Engineer in 2023: [Detailed Guide]
- ☐ How to Get an SRE Role
- ☐ DevOps Career Path
- ☐ Key DevOps Engineer Skills You Need in 2024

Books

SRE books

- ☐ Site Reliability Engineering
- ☐ The Site Reliability Workbook
- ☐ Seeking SRE
- ☐ Building Secure and Reliable Systems
- ☐ Implementing Service Level Objectives

Linux

- ☐ Linux Kernel Development (3rd Edition)
- ☐ UNIX and Linux System Administration Handbook (5th Edition)
- ☐ Linux Pocket Guide, 3rd Edition

Networking

- ☐ TCP/IP Illustrated, Volume 1

Troubleshooting and Performance

- ☐ Systems Performance: Enterprise and the Cloud
- ☐ Systems Performance, 2nd Edition

Courses

- ☐ Site Reliability Engineering: Measuring and Managing Reliability
- ☐ School of SRE