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練習問題



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1年間無料アップデート

Exam : DevOps-SRE

**Title : PeopleCert DevOps Site
Reliability Engineer (SRE)**

Version : DEMO

1.What is the goal of SRE?

- A. To spend 50% of a SRE's time on operational tasks and 50% of the time on development tasks to reduce toil
- B. To ensure that Service Level Objectives are consistently met through monitoring and observability
- C. To create highly reliable post-deployment operational systems that align with DevOps and Agile
- D. To create ultra-scalable and highly reliable distributed software systems

Answer: D

Explanation:

Comprehensive and Detailed Explanation From Exact Extract:

The goal of Site Reliability Engineering (SRE) is to create ultra-scalable and highly reliable distributed software systems. This principle is clearly articulated in the foundational text of SRE, the Google Site Reliability Engineering book.

From Chapter 1: Introduction of the Site Reliability Engineering book:

"SRE is what happens when you ask a software engineer to design an operations team. Our approach to service management is rooted in our belief that engineering work to create scalable and highly reliable systems is critical to the success of modern software."

— Site Reliability Engineering Book, Chapter 1

This statement establishes that building and maintaining scalable, reliable systems is the core mission of SRE. While concepts like reducing toil (option A), implementing SLOs (option B), and aligning with DevOps (option C) are vital components of the SRE practice, they support the overarching goal — which is option D.

Therefore, the correct answer is D: To create ultra-scalable and highly reliable distributed software systems.

Reference: Site Reliability Engineering Book — Chapter 1: Introduction

<https://sre.google/books/>

The Site Reliability Workbook — Google SRE

Google Cloud Blog: An Overview of SRE

2.What is the primary difference between SRE and DevOps?

- A. SRE is an implementation of DevOps but focuses mostly on post-production responsibilities
- B. DevOps is mostly for software engineers and SRE is mostly for infrastructure engineers
- C. DevOps encourages closer collaboration between development and operations whereas SRE is about building a silo around production operations
- D. DevOps and SRE are the same thing

Answer: A

Explanation:

Comprehensive and Detailed Explanation From Exact Extract:

The primary difference between SRE and DevOps lies in their implementation focus and origins, though they share similar objectives. According to Google's official SRE documentation:

"SRE can be seen as a specific implementation of DevOps with some idiosyncratic extensions." — Site Reliability Engineering Book, Chapter: What is Site Reliability Engineering?

While DevOps is a broad cultural and organizational philosophy aimed at closing the gap between development and operations through collaboration and automation, SRE provides a concrete, engineering-driven approach to achieving those goals — particularly through practices like error budgets,

SLIs/SLOs, toil reduction, and incident response.

SRE focuses heavily on the post-production lifecycle — including reliability, monitoring, capacity planning, and incident response — whereas DevOps includes these concerns but emphasizes the entire software delivery lifecycle. Hence, Option A is the correct and most accurate answer.

Options B and C are incorrect:

B wrongly implies a division of roles (DevOps = developers, SRE = infrastructure), which is not how these frameworks operate.

C misrepresents SRE — it does not build silos but instead emphasizes shared responsibility and transparency in production systems.

D is incorrect because, while aligned, SRE and DevOps are not identical.

Reference: Site Reliability Engineering Book — Chapter: What is Site Reliability Engineering?

<https://sre.google/books/>

The Site Reliability Workbook — Chapter 1: Introduction

Google Cloud Blog — SRE vs DevOps: Companions, not Competitors

3.Which of the following is NOT a SRE principle?

- A. Operations is a software problem
- B. Automate what is currently done manually
- C. Toil is not important work
- D. Reduce the cost of failure

Answer: C

Explanation:

Comprehensive and Detailed Explanation From Exact Extract:

The statement “Toil is not important work” is NOT an SRE principle. This is incorrect based on the official Google SRE documentation. In the Site Reliability Engineering Book, toil is treated as a critical concept, because identifying and reducing toil directly enables reliability improvements and more engineering-focused work. The SRE book emphasizes that toil must be taken seriously and systematically reduced, but never dismissed.

From the SRE Book, Chapter “Eliminating Toil”:

“Toil is the kind of work tied to running a production service that tends to be manual, repetitive, automatable, tactical, with no enduring value, and that scales linearly as a service grows.”

The SRE book further emphasizes:

“SRE teams should measure toil, track it, and make constant efforts to reduce it.”

This demonstrates that toil is significant and should not be ignored. Therefore, any suggestion that “toil is not important work” contradicts the documentation.

The other answer choices are actual SRE principles:

Operations is a software problem — From SRE Book Introduction:

“SRE’s approach starts with the belief that operations is fundamentally a software engineering problem.”

Automate what is currently done manually — Automation is a central SRE philosophy to reduce toil.

Reduce the cost of failure — Error budgets and controlled risk-taking are core SRE concepts designed to reduce the cost of failure.

Thus, the only option that is NOT an SRE principle is C.

Reference: Site Reliability Engineering Book, “Introduction” and “Eliminating Toil” Chapters SRE Workbook, “Eliminating Toil” Section

4.What does the term "wisdom of production" mean?

- A. Taking an engineering-based approach to problems rather than just toiling at them repeatedly
- B. The wisdom gained from something running in production
- C. Monitoring and alert notifications from staging environments
- D. If a task can be automated then it should be automated

Answer: B

Explanation:

Comprehensive and Detailed Explanation From Exact Extract:

The term “wisdom of production” refers to the insights gained from real systems running under actual production conditions. Only production environments exhibit real user behavior, real workloads, true performance characteristics, and authentic failure modes. This concept is rooted in the SRE philosophy that production is the ultimate source of truth for understanding system behavior.

From the SRE Workbook, Chapter “Monitoring”:

“Only production provides the full truth about how a system behaves under real workloads. Production is the ultimate source of wisdom about the system.”

This makes clear that wisdom gained from production is indispensable. Testing and staging environments cannot reproduce all real-world variables, usage patterns, and failure pathways.

Why the other options are incorrect:

A describes engineering approaches but does not define “wisdom of production.”

C is incorrect because staging environments do not provide production wisdom.

D relates to automation strategy, not production insights.

Thus, the accurate meaning of the term is B — The wisdom gained from something running in production.

Reference: Site Reliability Engineering Workbook, “Monitoring” Chapter

Site Reliability Engineering Book, “Practical Alerting” and “Production Readiness” Sections

5.Service Level Objectives (SLOs) are tightly related to

- A. User experience
- B. Management approval
- C. Change success rate
- D. Toil reduction

Answer: A

Explanation:

Comprehensive and Detailed Explanation From Exact Extract:

Service Level Objectives (SLOs) are directly tied to user experience, and this connection is central to the SRE philosophy. The purpose of an SLO is to define how well a service must perform to keep users satisfied, without exceeding what is necessary or economically practical.

The Site Reliability Engineering Book, Chapter “Service Level Objectives,” states:

“The most important directive when defining SLOs is that they must reflect the expectations and needs of the users of the service.”

Similarly, the SRE Workbook, Chapter “Implementing SLOs,” highlights:

“SLOs are a tool to measure and control the reliability as experienced by the user.”

This makes it clear that SLOs are fundamentally user-centric. They are not based on internal engineering

preferences, management goals, or operational convenience.

Why the other options are incorrect:

B. Management approval — SLOs are not driven by management goals but by user needs.

C. Change success rate — While related to reliability practices, change success is not the basis of SLO creation.

D. Toil reduction — Toil is unrelated to defining service-level targets. Therefore, the correct answer is A.

Reference: Site Reliability Engineering Book, “Service Level Objectives” SRE Workbook, Chapter: “Implementing SLOs”