Alibaba Cloud Certified Associate (ACA) Developer Practice Test (Sample)

Study Guide

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Questions

1. What is NOT a suitable use-case for Elastic Container Instance (ECI)?

A. Microservices architecture

B. Third-party virtualization software deployment

C. Batch processing of jobs

D. Running event-driven applications

2. Which Cloud service allows you to orchestrate and coordinate distributed tasks effectively?

A. Function Compute

B. Serverless Workflow

C. ECS

D. API Gateway

3. What advantage does the Alibaba Cloud Video on Demand (VOD) service provide?

A. Real-time processing of transactions

B. Secure remote database access

C. Flexible video streaming and storage options

D. Automated backup capabilities

4. What combination of Alibaba Cloud applications can help process videos efficiently in parallel?

A. Serverless Workflow, Function Compute, Log Service

B. API Gateway, ECS, Object Storage Service

C. RDS, Function Compute, CDN

D. Data Lake, DataWorks, VPC

5. What are two benefits of creating indexes on PolarDB?

A. Decrease the storage size of the database

B. Improve query efficiency for SELECT statements

C. Make the database more secure

D. Reduce invalid data scanning

6. What should developers monitor to ensure operational efficiency in microservice applications?

- **A. Network bandwidth alone**
- **B. Server latency and response time**
- **C. User interface speed**
- **D. Storage size**

7. Which of the following best describes Alibaba Cloud's compliance services?

- **A. Enhances data storage capacity**
- **B. Ensures regulatory adherence and management**
- **C. Provides data encryption techniques**
- **D. Optimizes network speed**

8. Which of the following is NOT required for SMC (Server Migration Center) to migrate a server to Alibaba Cloud?

- **A. Bind an Elastic IP (EIP) to the server**
- **B. From the SMC console, configure the type of disk image to be generated during the migration**
- **C. Set migration priorities for the server data**
- **D. Check compatibility of the server with Alibaba Cloud**

9. What is the main purpose of Alibaba Cloud Backup and Recovery service?

- **A. To enhance system performance**
- **B. To protect and restore data effectively**
- **C. To manage database instances**
- **D. To optimize application deployment**

10. Which service facilitates the integration of various databases on Alibaba Cloud?

- **A. Alibaba Cloud Data Synchronization Service**
- **B. Alibaba Cloud Database Gateway**
- **C. Alibaba Cloud Table Store**
- **D. Alibaba Cloud Security Center**

Answers

1. B
2. B
3. C
4. A
5. B
6. B
7. B
8. B
9. B
10. B

Explanations

1. What is NOT a suitable use-case for Elastic Container Instance (ECI)?

A. Microservices architecture

B. Third-party virtualization software deployment

C. Batch processing of jobs

D. Running event-driven applications

Elastic Container Instance (ECI) is designed to simplify container management and deployment by eliminating the need for traditional server management and allowing for seamless scaling of containerized applications. It is particularly well-suited for applications that require quick and on-demand resource provisioning, making it ideal for use cases such as microservices architecture, batch processing of jobs, and running event-driven applications. The use of ECI is generally not suitable for deploying third-party virtualization software. This is because ECI is specifically optimized for running containerized workloads, which are fundamentally different from virtual machines. Virtualization software typically involves managing an entire operating system environment, whereas ECI is focused on handling containerized applications that share the host operating system kernel. As a result, trying to deploy third-party virtualization solutions on ECI would not align with its designed capabilities and could lead to inefficiencies and complications.

2. Which Cloud service allows you to orchestrate and coordinate distributed tasks effectively?

A. Function Compute

B. Serverless Workflow

C. ECS

D. API Gateway

The selected answer, Serverless Workflow, is designed specifically for orchestrating and coordinating distributed tasks. This service allows developers to define a series of workflows that can involve multiple cloud services and independent units of work. Serverless Workflow utilizes a visual interface or code to create state machines, enabling the automation of complex business logic without the need to manage underlying infrastructure. This service is particularly advantageous when handling workflows that require multiple asynchronous tasks to be executed in sequence or in parallel, providing a high level of control over the task dependencies and execution order. It integrates seamlessly with other Alibaba Cloud services, which is crucial for distributed systems that often rely on multiple microservices or components. In contrast, Function Compute is focused on running code in response to events without server management but does not inherently provide orchestration capabilities. ECS (Elastic Compute Service) is a service that allows users to run virtual machines and control computing resources directly but doesn't specialize in workflow orchestration. API Gateway is primarily used to create, publish, maintain, and secure APIs, and while it facilitates communication between services, it doesn't manage the coordination of workflows or task execution sequences. Therefore, Serverless Workflow stands out as the best option for orchestrating and coordinating distributed tasks due to its purpose-built capabilities in this area.

3. What advantage does the Alibaba Cloud Video on Demand (VOD) service provide?

A. Real-time processing of transactions

B. Secure remote database access

C. Flexible video streaming and storage options

D. Automated backup capabilities

The Alibaba Cloud Video on Demand (VOD) service offers flexible video streaming and storage options, which is a significant advantage for users who need to manage video assets efficiently. This flexibility allows users to choose from various encoding formats, resolutions, and streaming protocols, enabling them to optimize video delivery according to the specific needs of their audience and the capabilities of their devices. Furthermore, the VOD service supports features such as adaptive bitrate streaming, which adjusts the video quality based on the user's available bandwidth, ensuring a smooth viewing experience. In addition to streaming, users can easily upload, store, and manage large volumes of video files in a scalable manner, allowing them to cater to a growing library of content without sacrificing performance or reliability. This capability is particularly important for businesses and individuals who rely on video content for marketing, education, entertainment, or any other purpose, as it streamlines the entire process of video management from storage to delivery.

4. What combination of Alibaba Cloud applications can help process videos efficiently in parallel?

A. Serverless Workflow, Function Compute, Log Service

B. API Gateway, ECS, Object Storage Service

C. RDS, Function Compute, CDN

D. Data Lake, DataWorks, VPC

The combination of Serverless Workflow, Function Compute, and Log Service is particularly effective for processing videos efficiently in parallel due to their designed functionalities and interactions within Alibaba Cloud's ecosystem. Serverless Workflow enables orchestration of various tasks involved in video processing, allowing for automated execution of workflows without managing servers. This is particularly useful for video processing tasks that may involve multiple steps, such as encoding, format conversion, and filtering. Function Compute plays a critical role by allowing the processing logic to be executed in a serverless environment. It can scale automatically to handle large volumes of video data, executing functions in parallel without the need for manual provisioning of servers. This means that multiple video processing tasks can run simultaneously, significantly speeding up the overall processing time. Log Service complements both of these components by providing monitoring and logging capabilities. As videos are processed, the Log Service can capture logs for error tracking, performance monitoring, and auditing, which is essential for maintaining a reliable and efficient video processing pipeline. The synergy of these three services allows for a seamless and scalable video processing solution that can efficiently handle multiple tasks in parallel, accommodating varying workloads and minimizing processing times. In contrast, other combinations may not effectively leverage parallel processing or might focus on different aspects of video management without the same

5. What are two benefits of creating indexes on PolarDB?

A. Decrease the storage size of the database

B. Improve query efficiency for SELECT statements

C. Make the database more secure

D. Reduce invalid data scanning

Creating indexes on PolarDB significantly benefits query performance, particularly for SELECT statements. An index acts like a lookup table, allowing the database engine to find rows much faster than scanning through the entire table. When queries are executed, especially those involving conditions on indexed columns, the database can quickly navigate to the relevant data, thus improving the response time and overall efficiency. This is particularly valuable in large databases where full table scans would be time-consuming and resource-intensive. While some may consider the potential for indexes to optimize storage, they actually do not decrease the database size; rather, they typically increase it because indexes consume additional space. Additionally, while security is crucial in database management, indexes do not inherently provide security. Their primary purpose is to enhance performance by speeding up data retrieval. Lastly, indexes do help in reducing the amount of data that needs to be scanned during query execution, but this is specifically beneficial for improving query efficiency. Hence, option B is the most appropriate benefit of creating indexes in PolarDB.

6. What should developers monitor to ensure operational efficiency in microservice applications?

A. Network bandwidth alone

B. Server latency and response time

C. User interface speed

D. Storage size

Monitoring server latency and response time is crucial for ensuring operational efficiency in microservice applications. Microservices often interact with one another over the network, and latency in these communications can significantly affect the overall performance of the application. By keeping an eye on response times, developers can identify bottlenecks in service interactions and optimize their code and infrastructure accordingly. Additionally, response time is a direct indicator of user experience. If microservices respond slowly, it can lead to degraded performance and user dissatisfaction. Monitoring these metrics allows developers to take proactive measures to enhance the responsiveness of their applications, whether that's through optimizations, scaling, or other adjustments. Network bandwidth, while important, does not provide a complete picture of application performance since it doesn't account for how long operations take to complete. User interface speed is also significant but is more about client-side performance than how the backend services are operating. Meanwhile, monitoring storage size is essential for managing resources but does not directly relate to the efficiency of microservice interactions or user experiences. Therefore, focusing on server latency and response time is paramount for effective management and improvement of microservice applications.

7. Which of the following best describes Alibaba Cloud's compliance services?

A. Enhances data storage capacity

B. Ensures regulatory adherence and management

C. Provides data encryption techniques

D. Optimizes network speed

The option that best describes Alibaba Cloud's compliance services is that they ensure regulatory adherence and management. Compliance services are primarily focused on helping organizations meet legal and regulatory requirements associated with data handling, security, privacy, and other operational practices. Alibaba Cloud provides tools and frameworks that assist businesses in conforming to various compliance standards, such as GDPR, PCI DSS, and others. This includes features like auditing, risk assessment, and reporting, which are critical for maintaining compliance in a rapidly changing regulatory landscape. Other options, while important aspects of cloud services, do not specifically align with the core purpose of compliance services. Enhancing data storage capacity, providing data encryption techniques, and optimizing network speed relate more to the technical performance and security of cloud solutions rather than focusing specifically on regulatory compliance.

8. Which of the following is NOT required for SMC (Server Migration Center) to migrate a server to Alibaba Cloud?

A. Bind an Elastic IP (EIP) to the server

B. From the SMC console, configure the type of disk image to be generated during the migration

C. Set migration priorities for the server data

D. Check compatibility of the server with Alibaba Cloud

The correct answer identifies that configuring the type of disk image to be generated during migration is not a requirement for the Server Migration Center (SMC) to migrate a server to Alibaba Cloud. When using SMC, the essential steps focus on ensuring that the server can communicate with Alibaba Cloud and that it is compatible with the infrastructure of Alibaba Cloud. Binding an Elastic IP enables external access during and after the migration process. Setting migration priorities helps manage how resources are allocated during the data transfer, ensuring an orderly and efficient migration. Checking the compatibility of the server is crucial to determine if the server can be successfully migrated without issues related to configuration or hardware. In contrast, while generating a disk image may be part of the migration process, it is not a mandatory requirement to initiate or complete the migration. Thus, it is not strictly necessary in all migration scenarios with SMC, which relies on other vital factors to ensure a successful server transfer.

9. What is the main purpose of Alibaba Cloud Backup and Recovery service?

A. To enhance system performance

B. To protect and restore data effectively

C. To manage database instances

D. To optimize application deployment

The primary purpose of the Alibaba Cloud Backup and Recovery service is to protect and restore data effectively. This service is designed to ensure that users can safeguard their critical data against loss due to various reasons such as accidental deletion, hardware failures, or cyber incidents. By providing an automated solution for data backup and a simple process for recovering that data when needed, this service helps maintain business continuity and protects against unexpected data loss. The focus of this service is centered around data integrity and availability, allowing users to create backups at scheduled intervals, manage retention policies, and restore data to specific points in time easily. This capability is vital for businesses that rely on data for operations, compliance, and overall management. In contrast, while enhancing system performance, managing database instances, and optimizing application deployment are important functions in computing environments, they are not the main objective of the Backup and Recovery service. Instead, this service is specifically tailored to address the needs for data safety and restoration, highlighting its role as a critical component of data management strategy on Alibaba Cloud.

10. Which service facilitates the integration of various databases on Alibaba Cloud?

A. Alibaba Cloud Data Synchronization Service

B. Alibaba Cloud Database Gateway

C. Alibaba Cloud Table Store

D. Alibaba Cloud Security Center

The service that facilitates the integration of various databases on Alibaba Cloud is Alibaba Cloud Database Gateway. This service provides a unified gateway that enables applications to access multiple databases seamlessly. It simplifies communication between different database systems, allowing for better data management and integration without requiring significant changes to the application architecture. The Database Gateway supports various protocols and formats, making it easier to connect and interact with diverse database platforms. This capability is crucial for organizations that operate with hybrid cloud environments or need to consolidate data from multiple sources. In contrast, the other options, while valuable, do not serve the primary purpose of integrating databases. The Data Synchronization Service is designed for synchronizing data between different database systems but does not provide a unified gateway for integration. The Table Store is a NoSQL database service, which focuses on storing and retrieving data rather than facilitating integration. The Security Center is aimed at security management and doesn't address database integration needs. Thus, the Database Gateway stands out as the right choice for facilitating integration across various databases on Alibaba Cloud.