



Indian Institute of Technology Kharagpur

Google Cloud Computing

(Jul-Oct 2024)

Assignment- Week 4

TYPE OF QUESTION: MCQ/MSQ

Number of questions: 10 Total mark: 10 X 1 = 10

QUESTION 1:

In a RESTful API, which HTTP status code indicates that a resource has been successfully created?

- a) 200
- b) 201
- c) 204
- d) 400

Correct Answer: (b)

Detailed Solution: In the context of RESTful APIs, different HTTP status codes are used to indicate the result of a client's request. The status code **201 Created** specifically indicates that a new resource has been successfully created as a result of the client's request.

QUESTION 2:

Which of the following best describes Google Cloud Endpoints?

- a) A managed service to store and retrieve large amounts of data
- b) A tool for monitoring and logging applications
- c) A distributed database service
- d) A fully managed service for creating, deploying, and managing APIs

Correct Answer:(d)

Detailed Solution:

Google Cloud Endpoints is a fully managed service that makes it easy to create, deploy, and manage APIs on Google Cloud Platform (GCP). It allows developers to develop APIs that can be consumed by different clients such as mobile apps, web apps, and other services. Cloud Endpoints provides features like authentication, monitoring, logging, and support for both REST and gRPC protocols, which help in managing the lifecycle of APIs efficiently. This service helps ensure that APIs are secure, scalable, and easy to maintain.

QUESTION 3:





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Which of the following tasks can be facilitated by managed messaging services?

- a) Distributing real-time analytics reports
- b) Triggering automated backups
- c) Processing and routing real-time events
- d) Storing large volumes of static data

Correct Answer: (c)

Detailed Solution: Managed messaging services like Google Cloud Pub/Sub or Amazon SQS are designed to handle the processing and routing of real-time events and messages between applications. They facilitate asynchronous communication and event-driven architectures, making them suitable for scenarios where real-time events need to be processed and distributed across systems.

QUESTION 4:

Which of the following is/are applicable for Cloud Pub/Sub?

- a) It is a software application that collects data from users
- b) It exchanges data directly between publisher and subscriber
- c) It cannot handle multiple applications
- d) None of the above

Correct Answer: (d)

Detailed Solution: Cloud Pub/Sub is a messaging middleware that enables asynchronous communication between independent applications. It acts as a message bus that allows publishers to send messages to a topic, which are then asynchronously delivered to subscribers. This decouples the sender and receiver, allowing them to operate independently and improving scalability and reliability. Cloud Pub/Sub can handle multiple applications by facilitating communication and acting as a buffer between them, ensuring message delivery even if the receiver is temporarily unavailable.

QUESTION 5: We can use Cloud Pub/Sub while ______ data in big-data processing model. a) analysing b) processing c) ingesting

d) storing

Correct Answer: (c)

Detailed Solution: Cloud Pub/Sub is used for ingesting data





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QUESTION 6:

Which Google Cloud service is used for managing user identities and access to resources?

- a) Cloud Storage
- b) Cloud IAM
- c) Cloud SQL
- d) Cloud Pub/Sub

Correct Answer: (b)

Detailed Solution: Cloud IAM (Identity and Access Management) is the service used to manage user identities and control access to Google Cloud Platform resources. It allows administrators to grant specific permissions to users, groups, or service accounts at the project level or for specific resources within a project.

QUESTION 7:

Which statement best describes Customer-Supplied Encryption Keys (CSEK) in Google Cloud?

- a) Encryption keys managed and provided by Google Cloud for customer data
- b) Keys that are automatically generated for each Cloud Storage bucket
- c) Keys provided by customers and used to encrypt data stored in Google Cloud
- d) Keys used only for encrypting VM instances in Google Compute Engine

Correct Answer: (c)

Detailed Solution: Customer-Supplied Encryption Keys (CSEK) are encryption keys provided by customers to encrypt data stored in Google Cloud services like Cloud Storage. Google Cloud uses these keys to encrypt and decrypt customer data, providing an additional layer of control over data encryption.

QUESTION 8:

Which encryption standard does Google Cloud use to encrypt data at rest?

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- a) AES-128
- b) RSA-2048
- c) DES
- d) RSA-4096

Correct Answer: (a)

Detailed Solution: Google Cloud Platform uses AES-128 (Advanced Encryption Standard with a 128-bit key) to encrypt data at rest by default. AES-128 is widely recognized for its security and efficiency in encrypting sensitive data.

QUESTION 9:

What does CMEK stand for in Google Cloud Platform (GCP) encryption?

- a) Cloud Managed Encryption Keys
- b) Customer Managed Encryption Keys
- c) Centralized Managed Encryption Keys
- d) Certified Managed Encryption Keys

Correct Answer: (b)

Detailed Solution: Customer Managed Encryption Keys (CMEK) allow customers to create, manage, and bring their own encryption keys to encrypt data stored in Google Cloud services like Cloud Storage and BigQuery. This gives customers greater control over their data encryption and security.

QUESTION 10:

Which Google Cloud service provides integration with GSuite for managing user identities and access?

- a) Cloud IAM
- b) Cloud Storage
- c) Cloud Identity
- d) Cloud Functions

Correct Answer: (c)

Detailed Solution: Cloud Identity is a Google Cloud service that provides identity and access management capabilities. It integrates with G Suite to manage user identities, access controls, and security policies across Google Cloud services and applications. Cloud Identity allows organizations





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to centralize user management, enforce security policies, and enable single sign-on (SSO) for G Suite and other cloud-based applications.

