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Assignment 4

The due date for submitting this assignment has passed.

Due on 2020-10-14, 23:59 IST.

Assignment submitted on 2020-10-14, 19:19 IST

1) Which of the following is the most common API format in GCP?   *1 point*

○ CLI
○ gRPC
○ SOAP
◉ REST

Yes, the answer is correct.
Score: 1
Feedback:
REST APIs is the default API format for GCP. It is the most common API format today.

Accepted Answers:
REST

2) What is the purpose of an API?   *1 point*

○ APIs replace web pages.
○ APIs create GUI interfaces
○ APIs are non-HTTPS interfaces used to interface with web interfaces.
◉ APIs simplify the way disparate software resources communicate.

Yes, the answer is correct.
Score: 1

Feedback:
*APIs are used to simplify the way different, disparate, software resources communicate. APIs
provide a uniform format for different applications to communicate*

Accepted Answers:
APIs simplify the way disparate software resources communicate.

3)   Which of the following is the protocol used by REST APIs?   ***1 point***

- ⦿ HTTPS
- ◯ RDP
- ◯ ICMP
- ◯ Telnet

Yes, the answer is correct.
Score: 1

Feedback:
REST API implementations can make use of standards, such as HTTP, URI, JSON, and XML.

Accepted Answers:
HTTPS

4)   True or False. Firebase Authentication and Auth0 are two of the utilities Cloud   ***1 point***
Endpoints uses to support service-to-service and user authentication.

- ⦿ True
- ◯ False

Yes, the answer is correct.
Score: 1

Feedback:
*The answer is True. Firebase, Auth0, and Google authentication are all used for service-to-
service and user authentication*

Accepted Answers:
True

5)   You are looking for a managed API service to provide an API frontend to your legacy   ***1 point***
systems. Which of these services would meet your needs?

- ◯ CLI
- ◯ Cloud Endpoints
- ⦿ Apigee Edge
- ◯ gRPC

Yes, the answer is correct.
Score: 1

Feedback:
*Apigee Edge is a platform for developing and managing APIs used for both cloud and legacy
systems. Apigee Edge provides an abstraction for your backend service APIs and provides a
variety of services including security, rate limiting, quotas, and analytics*

Accepted Answers:
Apigee Edge

6)   What are the specifications that Cloud Endpoints supports?   ***1 point***

☐ CLI
☐ RFC
☐ IEEE
☑ OpenAPI
☑ gRPC

Yes, the answer is correct.
Score: 1
Feedback:
GRPC and OpenAPI are the two formats that Cloud Endpoints supports

Accepted Answers:
OpenAPI
gRPC

7)   You are looking for a managed API service for your cloud-based services? Which of these services would meet your needs?   ***1 point***

○ Apigee Edge
◉ Cloud Endpoints
○ CLI
○ False

Yes, the answer is correct.
Score: 1
Feedback:
Cloud Endpoints is a managed API Service used to create web front ends to GCP services.

Accepted Answers:
Cloud Endpoints

8)   How does Cloud Pub/Sub deliver messages to endpoints?   ***1 point***

○ Through an internal ID.
○ Messages have to be pulled by the front end.
○ By pushing messages to all available endpoints based on an internal list.
◉ Through a publish/subscribe pattern

Yes, the answer is correct.
Score: 1
Feedback:
Cloud Pub/Sub uses a publisher subscription format. Publishers are services or applications that produce messages to another application to process. When messages are placed in a topic, they will ultimately be delivered to an application or service to process via a subscription.

Accepted Answers:
Through a publish/subscribe pattern

9)   What are the types of message delivery supported with Cloud Pub/Sub?   ***1 point***

☐ Bounce
☑ Pull
☐ Poll
☑ Push

Yes, the answer is correct.
Score: 1
Feedback:
Messages can be delivered via push or pull methods.

Accepted Answers:
Pull
Push

10) You need a simple and reliable staging location for your event data on its journey   **1 point**
towards processing, storage, and analysis. Which one of the following
        services should you consider?

○ Apigee Edge
○ Cloud Dataflow
○ Cloud Endpoints
◉ Cloud Pub/Sub

Yes, the answer is correct.
Score: 1
Feedback:
Cloud Pub/Sub is a global managed service that provides the storage and distribution of messages. Messages use a publish/subscribe delivery format and can be delivered either via push or pull messaging. Pub/Sub can serve as a buffer for applications as messages get processed.

Accepted Answers:
Cloud Pub/Sub

11) Which statement regarding GCP and data encryption is accurate?   **1 point**

◉ Data is encrypted at rest and in transit.

○ Only data at rest is encrypted.

○ Only data in transit is encrypted.

○ Nothing is encrypted by default. Data must be encrypted by the customer.

Yes, the answer is correct.
Score: 1
Feedback:
Google encrypts data at rest and in transit by default. The customer can also encrypt data with customer managed or customer supplied keys.

Accepted Answers:
Data is encrypted at rest and in transit.

12) True or False. Managing GCP users through Google Groups allows an administrator to **1 point**
manage team identities centrally

○ True
◉ False

Yes, the answer is correct.
Score: 1
Feedback:
The answer is False. With Google Groups, if someone leaves the organization or team there's no centralized way to remove their access to the cloud resources immediately. GCP users who are

also G Suite users can be managed centrally through the Google Admin Console. Alternatively, Cloud Identity can be used for non-G Suite users.

Accepted Answers:
False

13) When comparing on-premises, IaaS, PaaS, and managed services, which option requires the least amount of work for the user in terms of security?   **1 point**

○ IaaS

◉ Managed service

○ On-premises

○ PaaS

Yes, the answer is correct.
Score: 1

Feedback:
Managed services usually also manage some of the security burden rather than the user.

Accepted Answers:
Managed service

14) Which of the following is the correct statement for a service account in GCP?   **1 point**

○ Lock down a user.

○ Create a user in GCP.

○ Give permissions to a group of users.

◉ Allow for service-to-service interaction with GCP.

Yes, the answer is correct.
Score: 1

Feedback:
Service accounts allow for the authorization of service-to-service interaction.

Accepted Answers:
Allow for service-to-service interaction with GCP.

15) What do primitive roles grant permissions to?   **1 point**

○ Folders

○ Resources

○ Organizations

◉ Projects

Yes, the answer is correct.
Score: 1

Feedback:
Primitive roles, such as Owner, Editor, and Viewer, apply to projects and services

Accepted Answers:
Projects

16) Which of the following is not an example of a primitive role?   **1 point**

○ Owner

◉ Admin

○ Viewer

○ Editor

Yes, the answer is correct.
Score: 1

Feedback:
The primitive roles are Owner, Editor, Viewer, and Billing Administrator

Accepted Answers:
Admin

17) When setting up user/role pairings in GCP, which of the following is true?   **1 point**

○ Permissions are not inherited.

◉ Permissions are inherited and the least restrictive permission will be inherited

○ Everyone is a project owner by default.

○ The user will always inherit the stricter permission applied

Yes, the answer is correct.
Score: 1

Feedback:
GCP uses an inherited permission model. The user will always get the least restrictive permission when inherited

Accepted Answers:
Permissions are inherited and the least restrictive permission will be inherited

18) What service is used to supply encryption keys when users want to manage their own   **1 point**
keys?

○ CloudHSM

○ Google is encrypted by default. No keys are required

○ The customer must bring their own keys and manage them

◉ Cloud Key Management System

Yes, the answer is correct.
Score: 1

Feedback:
Cloud KMS creates encryption keys in the cloud for customers to manage.

Accepted Answers:
Cloud Key Management System

19) There are a number of best practices that should be applied to identity and access   **1 point**
management. Which of the following does Google recommend?

○ Use folders to group instances

○ Use custom roles for all objects

○ Try to use primitive roles instead of pre-defined roles

◉ Use the "principle of least privilege" when distributing permissions

Yes, the answer is correct.
Score: 1

Feedback:
Because of inheritance, Google recommends using the "principle of least privilege" when granting roles

Accepted Answers:
Use the "principle of least privilege" when distributing permissions

20) True or False. Cloud Identity-Aware Proxy (Cloud IAP) allows you to use an **1 point**
application-level access control model instead of relying on network-level
　　firewalls

◉ True

◯ False

Yes, the answer is correct.
Score: 1

Feedback:
The answer is True. Cloud IAP lets you establish a central authorization layer for applications over TLS, so you can use an application-level access control model instead of relying on network-level firewalls.

Accepted Answers:
True