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Technical Exercise
Google Authorised Trainer

January 2022

Google Cloud
Partner

Managed Service Provider

bsi. ISO 9001:2015 Quality Management
FS 678506

bsi. ISO/IEC 27001 Information Security Management
IS 655422

Google Cloud

Introduction

Congratulations on making it to the final stage with Appsbroker!

As an engineering-focused training business, we want to ensure that our instructors have a good level of knowledge and experience around building solutions on Google Cloud.

We would like you to work through the following scenario and present your solution back to the team, highlighting your thought process into how you approached each task (including the choice of components and ensuring that your code for any infrastructure, service or config is built in a repeatable format).

Show us what you've got!

You work for a company looking into the benefits of public cloud. After much thought, they have settled on exploring Google Cloud Platform (GCP) as a provider.

They have asked you to assist in developing a technical proof of concept solution from scratch.

Please show a public "Hello world" application running on GCP.

Task 2

A discovery workshop as part of this exploration has resulted in a business requirement that identified the application needs to run on a private RFC1918 based network range with a GCP Database Service as well as access to a blob store for static content.

Please show how you incorporate this into your design and present this along with any associated code.

Note: You don't need to create an application that accesses these services, just build the necessary infrastructure components.

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Task 3

The company is impressed with your efforts so far. To meet expectations, they have asked if this solution could provide a greater deal of business continuity and will scale under one of the following conditions; Utilisation, Traffic and/or Status.

Please show how your application/solution meets this expectation of business continuity.

The Financial Director has been made aware of the benefits of public cloud and the potential use cases of your application. They are a keen advocate of 'cost optimisation' and would like to know if your design has factored this in.

Please review your previous designs to identify areas of optimisation for cost and how you could look to reduce it. Present this back.

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Your 'simple POC' has been generating a lot of positive noise internally! The risk and compliance team have been alerted to your efforts and are interested in the practical uses of your application, provided it meets their compliance expectations.

After review, it has been identified this application will be storing Personal Identifiable Information (PII). In a world of data breaches, the team want to know how you meet this concern.

Please review your design and highlight/present a solution to a "Technical Design Authority" audience that would resolve any Security, Data Exfiltration and Compliance concerns.

Final instructions

Please send or share your github/zip/design and any files with
tim.berry@appsbroker.com and be ready to present your project in your final interview.

Resources/Help

For setting up a Google Cloud Environment with $300 in free credits to build your solution as well as documentation - https://cloud.google.com

About Appsbroker - https://www.appsbroker.com/about/careers/

Latest free skills challenge by GCP - https://inthecloud.withgoogle.com/google-cloud-skills/register.html

Thank you!

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