Question #1 of 60

Question ID: 1495228

You need to guide your company toward using more cloud-native services to create greater business value. Which of these are characteristics of serverless computing using the cloud? (Choose two.)

A) Operational costs are higher

B) Infrastructure is provisioned by the cloud service provider

C) Code is run by actual servers

D) Suitable only for predictable scaling needs

E) Computing resources need to be managed by users

Explanation

Two characteristics of serverless computing include:

- Infrastructure is provisioned and scaled by the cloud service provider (CSP)
- Code is run by actual servers

Serverless computing is a cloud computing model that allows you to create and execute code without needing to manage the underlying servers or pay for any infrastructure that is unused.

Some serverless Google technologies include:

- Application development – You can use Cloud Functions and App Engine for serverless hosting of applications. You can use Cloud Datastore and Firebase for NoSQL serverless databases.
- Analytics – You can use Cloud Storage and Pub/Sub for serverless data analytics work and Dataflow for processing global scale datasets.
- Microservices – Google serverless systems help develop microservices based systems by bringing down the cost of infrastructure by dynamic scaling. Using fully managed serverless systems also reduces operational costs, which removes the need for companies to perform server management. Also, using serverless systems like Pub/Sub can help avoid synchronous call chains by creating precomputed results asynchronously for microservices.

Computing resources do not need to be managed by users. This is done by the CSP and allows developers to focus on creating business value instead of performing resource provisioning. Also, with the automatic and dynamic nature of resource provisioning using serverless systems, applications developed on serverless systems can perform massive levels of scaling.

Serverless systems do not create higher operational costs. This is because when provisioning servers for database and computing applications is done by the CSP, the operational costs to provision and manage massive server clusters reduce substantially.

Serverless systems are suitable not only for predictable scaling needs but excellent for unpredictable workloads. Serverless systems like Google's Cloud Functions and App Engine both offer dynamic scaling based on request volumes without the need for performing server management by the developer. You can use Cloud Functions for executing small chunks of code triggered by Hypertext Transfer Protocol (HTTP) requests or cloud events. Since the billing is only done per request, this can result in significant savings for traffic patterns that are uneven or unpredictable. Similarly, you can use App Engine for larger sections of code like for a Website.

Objective:
Infrastructure & Application Modernization

Sub-Objective:
Learn what modernizing IT infrastructure with Google Cloud means

References:

Cloud.google.com > Serverless Architecture
