Google Cloud Architect Cheatsheet

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GCP Cloud Architect

What is GCP Professional Cloud Architect Certificate

- Design and plan a cloud solution architecture
- Manage and provision the cloud solution infrastructure
- Design for secure and compliance
- Analyze and optimize technical and business processes
- Manage implementations of cloud architecture
- Ensure solution and operations reliability

Virtual Machines

Google Cloud VPC provides networking functionality to Compute Engine virtual machine instances, Google Kubernetes Engine containers, and the App Engine flexible environment.

Private Cloud Networks:
A Private Cloud Network is a virtual version of a physical network, such as a data center network. Projects can contain multiple VPC networks.
VPC networks, including their associated routes and firewall rules, are global resources. They are not associated with any particular region or zone.
Subnets are regional resources. Each subnet defines a range of IP addresses.

Private Cloud Networks:
Virtual Machines (VM) running in Google's global data center. Ideal for when you need complete control over your infrastructure and direct access to high-performance hardware or need OS-level changes.
Use Cases: any workload requiring a specific OS or OS configuration, currently deployed and on-premises software that you want to run in the cloud.

Storage

Overview
Cloud Storage:
To be edited
Cloud BigTable:
To be edited
Cloud SQL:
To be edited
Cloud Spanner:
To be edited
Cloud DataStore:
To be edited

Containers

Overview
Containers:
Choosing an option to run containers
Kubernetes:
Owner (full access to resources, manage roles), Editor (edit access to resources, change or add), Viewer (read access to resources)
Kubernetes Compute Engine:
Owner (full access to resources, manage roles), Editor (edit access to resources, change or add), Viewer (read access to resources)

Applications

GCP's monitoring, logging, and diagnostics solution. Provides insights to health, performance, and availability of applications.
Main Functions
App Engine:
Owner (full access to resources, manage roles), Editor (edit access to resources, change or add), Viewer (read access to resources)
Cloud Endpoints:
Owner (full access to resources, manage roles), Editor (edit access to resources, change or add), Viewer (read access to resources)
Apigee Sense:
Owner (full access to resources, manage roles), Editor (edit access to resources, change or add), Viewer (read access to resources)

Developing, Deploying and Monitoring????

Overview
Cloud Source Repositories:
Cloud Functions:

Compute Choices

Overview
Cloud Dataflow:
BigQuery:
Cloud Pub/Sub:
Cloud Datalab:
GCP Machine Learning Services:

GCP IAM

Overview
Organization:
To be edited
Roles:
To be edited
Members:
To be edited
Service Accounts:
To be edited

Resource Monitoring

Overview
Stackdriver:
Some text to be introduced
Stackdriver Logging:
Some text to be introduced
Stackdriver Error Reporting:
Some text to be introduced
Stackdriver Tracing:
Some text to be introduced
Stackdriver Debugger:
Some text to be introduced

Interconnecting Networking

Overview
Cloud VPN:
Some text to be introduced
Cloud Interconnect:
Some text to be introduced
Cloud Peering:
Some text to be introduced
Shared VPC and VPC Peering:
Some text to be introduced

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Load Balancing and Autoscaling

Choosing a Load Balancer
HTTP(S) Load Balancing:
Some text to be introduced
SSL Proxy Load Balancing:
Some text to be introduced
TCP Proxy Load Balancing:
Some text to be introduced
Network Load Balancing:
Some text to be introduced
Internal Load Balancing:
Some text to be introduced
Intro

- **TCP/UDP Load Balancing:** Tables partitioned based on the data's ingestion (load) date or arrival date. Each partitioned table will have pseudocolumn _PARTITIONTIME, or time data was loaded into table. Pseudocolumns are reserved for the table and cannot be used by the user.
- **Internal HTTP(s) Load Balancing:** Tables that are partitioned based on a TIMESTAMP or DATE column.

Infrastructure Automation

Deployment Manager:
Some text to be introduced
Explore best practices:
GCP Marketplace: Some text to be introduced

Managed Services

BigQuery:
Some text to be introduced
Cloud Dataflow:
Some text to be introduced
Cloud Dataprep:
Some text to be introduced
Cloud Dataproc:
Some text to be introduced

Case Studies

Overview **Mountkirk Games:**
Dress4Win:
TerramEarth: