

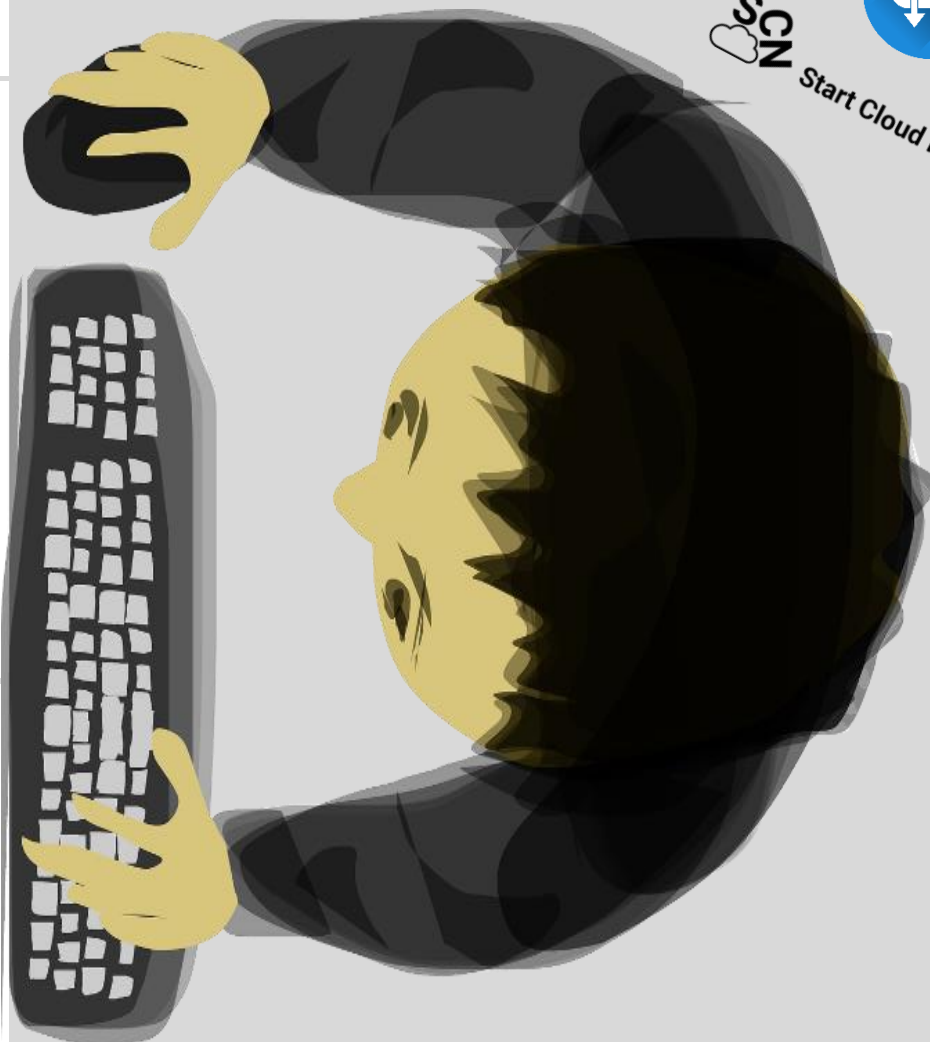
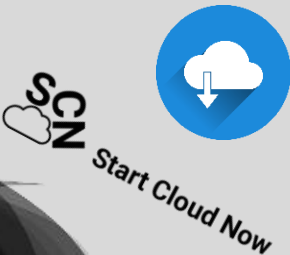
GOOGLE CLOUD ASSOCIATE ENGINEER







PREP NOTES





BY

MARCUS




V1






General Knowledge						
<div>Organisations</div> <div></div>	What it is Resources are organized hierarchically. This allows you to map your enterprise's operational structure to GCP, and to manage access control and permissions for groups of related resources	Key points <ul style="list-style-type: none">● Flow (Organisation, Folders, projects, resources)● Where to manage permissions for groups, department, entire organisation, etc	What you should know <ul style="list-style-type: none">● What is an organisation resource hierarchy?	Review documents Creating and managing organizations	Video Organizations & the Resource Hierarchy	My experience This is basic introductory knowledge for anyone entering google cloud.
<div>Folders</div> <div></div>	What it is Folders are an additional grouping mechanism on top of projects.	Key points <ul style="list-style-type: none">● Folders can be used to identify your departments or various environments of your cloud space.	What you should know <ul style="list-style-type: none">● The structure folders add to an organisation	Review documents Creating and managing Folders	Video Folders in Cloud Resource Manager	
<div>Projects</div> <div></div>	What it is The project resource is the base-level organizing entity. Organizations and folders may contain multiple projects.	Key points <ul style="list-style-type: none">● A project is required to use services, resources and billing.	What you should know <ul style="list-style-type: none">● How to use projects in google cloud platform	Review documents Creating and managing projects		
<div>Region</div> <div></div>	What it is Regions are independent geographic areas that consist of <i>zones</i>	Key points <ul style="list-style-type: none">● Isolated from other regions● Transfer fee for data between regions	What you should know <ul style="list-style-type: none">● Multi regional design can be used for fault tolerance	Review documents Region and Zones	Video GCP regions and zones Regions and Zones	
<div>Availability Zone</div> <div></div>	What it is A <i>zone</i> is a deployment area for Google Cloud resources within a region.	Key points <ul style="list-style-type: none">● Isolated from other zones● Low latency connection between AZ within the region	What you should know <ul style="list-style-type: none">● Zonal resources operate within a single zone. If a zone becomes unavailable, all of the zonal resources in that zone are unavailable until service is restored			
<div>On Prem</div> <div></div>	What it is Your organisation private data centre	Key points <ul style="list-style-type: none">● Why chose cloud● Type of application● Type of infrastructure● How to connect to cloud	What you should know <ul style="list-style-type: none">● Why move, what are the requirements.● Suitable cloud services (on cloud replacements / equivalents)			




Compute						
<div>Compute Engine</div> <div></div>	<div>What it is</div> <div>Compute Engine lets you create and run virtual machines on Google infrastructure</div>	<div>What you should know</div> <ul style="list-style-type: none">• Creating and starting a VM• Connecting to a VM• VM service accounts• Preemptible/spot VMs• Instance templates• VM availability policies• Custom VM instance• Managing VM access• Machine Types• VM deletion protection• Snapshots & Images• Compute storage options• Designing resilient VMs• Setting default zones	<div>Review documents</div> <div>Service accounts</div> <div>Connect with RDP</div> <div>VM availability policies</div> <div>Use load balancing</div>	<div>Video</div> <div>Preemptible Virtual Machine</div> <div>How to RDP</div> <div>Simplifying VM deployment</div> <div>Protect your VM from deletion</div> <div>Snapshots</div> <div>Export to Image</div>	<div>Qwiklabs</div> <div>Compute Engine: Qwik Start - Windows</div>	<div>My experience</div> <div>Compute topics cover a large portion of the exam</div>
<div>Unmanaged groups</div> <div></div>	<div>What it is</div> <div>Unmanaged instance groups are collections of instances that exist in a single zone and do not share a common <u>instance template</u>.</div>	<div>What you should know</div> <ul style="list-style-type: none">• Use instances that are not identical• Do not allow automatic creation, deletion or scaling.	<div>Review documents</div> <div>Creating groups of unmanaged instances</div>			<div>My experience</div> <div>Have a basic understanding of the difference between a managed instance group and an unmanaged instance group</div>
<div>Managed groups</div> <div></div>	<div>What it is</div> <div>This offers autoscaling capabilities, which let you automatically add or based on increases or decreases in load.</div>	<div>What you should know</div> <ul style="list-style-type: none">• Manage Instance groups templates• Allow automatic creation, deletion and scaling.• Automatic VM updates	<div>Review documents</div> <div>Instance groups</div> <div>Maximum unavailable</div>	<div>Video</div> <div>Rolling update & canary</div> <div>Create MIG templates</div>	<div>Qwiklabs</div> <div>Autoscaling an Instance Group with Custom Cloud Monitoring Metrics</div>	<div>My experience</div> <div>Know when and why you should use a managed instance group with autoscaling</div>
<div>Auto Scaling & Load balancing</div> <div></div>	<div>What it is</div> <div>The ability to scale automatically based on metric defined by user.</div>	<div>What you should know</div> <ul style="list-style-type: none">• Importance of autoscaling• Ways to configure autoscaling• Load balancing and scaling	<div>Review documents</div> <div>Load balancing and scaling</div> <div>Schedule-based autoscaling</div>	<div>Video</div> <div>Instance group auto scaling</div> <div>LB & Auto scaling</div>		


STORAGE

<div>Storage Classes</div> <div></div>	<div>What it is</div> <div>GCP Cloud Storage classes are storage options which vary on its availability, storage durations and pricing and ideal use cases.</div>	<div>What you should know</div> <div><ul style="list-style-type: none">• What is a cloud storage bucket?• The various storage classes and their benefits• Regional vs multi-Regional• Object lifecycle policies• Signed URLs• Uploading and downloading objects</div>	<div>Review documents</div> <div>Storage classes</div> <div>Change storage class</div> <div>Signed URLs</div> <div>Parallel uploads</div>	<div>Video</div> <div>https://cloud.google.com/storage/docs/storage-classes</div> <div>https://www.youtube.com/watch?v=aDHGIbOCK8A</div>	<div>Qwiklabs</div>	<div>My experience</div> <div>Understanding storage is vital for direct and indirect questions</div>
<div>Container Registry</div> <div></div>	<div>What it is</div> <div>This is a private container image registry that runs on Google Cloud Platform. It supports Docker Image Manifest V2 and OCI image formats.</div>	<div>What you should know</div> <div><ul style="list-style-type: none">• What's used for</div>	<div>Review documents</div> <div>https://cloud.google.com/container-registry/docs/overview</div>	<div>Video</div> <div>https://www.youtube.com/watch?v=_XAk5T_4-00</div>	<div>Qwiklabs</div> <div>https://www.qwiklabs.com/focuses/1768?parent=catalog</div>	<div>My experience</div> <div>Have an idea of its purpose</div>
<div>Cloud Storage</div> <div></div>	<div>What it is</div> <div>Cloud Storage is a service for storing your objects in Google Cloud.</div>	<div>What you should know</div> <div><ul style="list-style-type: none">• What is cloud storage• Its object oriented storage• Cloud Audit Logs• Accessing Cloud Storage using the Gsutil tool</div>	<div>Review documents</div> <div>https://cloud.google.com/storage/docs/introduction</div> <div>https://cloud.google.com/storage/docs/audit-logs#types</div>	<div>Video</div> <div>https://www.youtube.com/watch?v=VDBhvexAj8I</div>	<div>Qwiklabs</div> <div>https://www.qwiklabs.com/focuses/1760?parent=catalog</div>	<div>My experience</div> <div>Just be aware of this</div>







Data Analytics / Big Data







BigQuery 	What it is Enterprise data warehouse that enables super-fast SQL queries using the processing power of Google's infrastructure.	What you should know <ul style="list-style-type: none"> Managed by Google Analyse Data with SQL Dry run query BigQuery roles / permissions required to run queries External data sources 	Review documents https://cloud.google.com/bigquery/docs/runnng-queries https://cloud.google.com/bigquery/docs/dry-run-queries https://cloud.google.com/bigquery/docs/access-control-examples#read_access_to_data_in_a_different_project	Video https://www.youtube.com/watch?v=d3MDxC_iuaw https://www.youtube.com/watch?v=v_gmtlifTOE https://www.youtube.com/watch?v=MH5M2Crn6Ag	Qwiklabs https://www.cloudskillsboost.google/quests/123	My experience This topic is a must know
Dataflow 	What it is This is a fully-managed service for transforming and enriching data in stream (real time) and batch (historical) modes with equal reliability and expressiveness	What you should know <ul style="list-style-type: none"> When is data flow used 	Review documents https://cloud.google.com/dataflow/docs	Video https://www.youtube.com/watch?v=KaIJ0VuEM7s	Qwiklabs https://www.qwiklabs.com/focuses/1159?locale=it&parent=catalog	My experience Just be aware of this
Dataprep 	What it is Use Cloud Dataprep to explore and transform raw data from disparate and/or large datasets into clean and structured data for further analysis and processing.	What you should know <ul style="list-style-type: none"> When is dataprep used 	Review documents https://cloud.google.com/dataprep	Video https://www.youtube.com/watch?v=9unqufuUCeY	Qwiklabs https://www.qwiklabs.com/focuses/584?parent=catalog	My experience Just be aware of this
Dataproc 	What it is This is you managed Spark and Hadoop cloud offering	What you should know <ul style="list-style-type: none"> When is dataproc used? 	Review documents https://cloud.google.com/dataproc/docs/concepts/overview	Video https://www.youtube.com/watch?v=Jj6mp7Sam10	Qwiklabs https://www.qwiklabs.com/focuses/586?parent=catalog	My experience Just be aware of this
Cloud Pub/Sub 	What it is is a fully-managed real-time messaging service that allows you to send and receive messages between independent applications	What you should know <ul style="list-style-type: none"> When is Pub/Sub used? Pub/Sub service account 	Review documents https://cloud.google.com/pubsub/docs/overview	Video https://www.youtube.com/watch?v=cvu53CnZmGI	Qwiklabs https://www.qwiklabs.com/focuses/3719?parent=catalog	My experience This is used directly and indirectly so understand its function
Data Studio 	What it is Is a visualization and reporting tool, and an integral part of Google Marketing Platform. .	What you should know When is Data Studio used?	Review documents https://support.google.com/datastudio/answer/6283323?hl=en	Video https://www.youtube.com/watch?v=ZBoFvaWr-Dk	Qwiklabs https://www.qwiklabs.com/focuses/1158?parent=catalog	My experience Just be aware of this






Serverless						
<div>App Engine</div> <div></div>	What it is App Engine is a fully managed, serverless platform for developing and hosting web applications at scale.	What you should know <ul style="list-style-type: none">• App Engine environment• Deploying App versions• App traffic distribution	Review documents Apps to app engine App engine ENV Splitting Traffic	Video https://www.youtube.com/watch?v=Xuf3J6SKVV0 https://www.youtube.com/watch?v=iLYsHhqja_c	Qwiklabs https://www.qwiklabs.com/focuses/951?parent=catalog https://www.cloudskillsboost.google/focuses/1014?catalog_rank=%7B%22rank%22%3A1%2C%22num_filters%22%3A0%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=15054635	My experience You may see a question or two
<div>Cloud Run</div> <div></div>	What it is Develop and deploy highly scalable containerized applications on a fully managed serverless platform.	What you should know <ul style="list-style-type: none">• What is Cloud Run and its uses.• Deploying containers• Revisions	Review documents https://cloud.google.com/run/docs/deploying https://cloud.google.com/run/docs/managing/revisions	Video https://www.youtube.com/watch?v=nhwYc4StHlc https://www.youtube.com/watch?v=lzQNjZIGKaM https://www.youtube.com/watch?v=30P-q55hOUI	Qwiklabs https://www.qwiklabs.com/focuses/5162?parent=catalog	My experience Good to know
<div>Cloud Functions</div> <div></div>	What it is Event-driven serverless compute platform	What you should know <ul style="list-style-type: none">• Events and Triggers	Review documents https://cloud.google.com/functions/docs/concepts/events-triggers	Video https://www.youtube.com/watch?v=brhA9uaz7Xs	Qwiklabs https://www.qwiklabs.com/focuses/1763?parent=catalog	My experience A question or two may appear

Kubernetes						
<div>GKE</div> <div></div>	What it is (GKE) provides a managed environment for deploying, managing, and scaling your containerized applications using Google infrastructure.	What you should know <ul style="list-style-type: none">• What is GKE• What's a rolling deployment• Be familiar with kubectl syntax• Private clusters• Expanding the CIDR range• What is a DaemonSet?• Cluster Autoscaler• Node Auto-Upgrades• Secret object in Kubernetes• GKE security• GKE Sandbox	Review documents GKE Overview DaemonSet GKE versioning and support Secrets GKE Sandbox	Video https://www.youtube.com/watch?v=RI5M1CzgEH4 https://www.youtube.com/watch?v=jW_-KZCjrm0 https://www.youtube.com/watch?v=pqSRn1QHh8w https://www.youtube.com/watch?v=cQAEK9PBY8U	Qwiklabs https://www.qwiklabs.com/quests/29 https://www.qwiklabs.com/focuses/15636?locale=id&parent=catalog	My experience There would be a few questions based on GKE

Networking

<div>VPC Sharing</div> 	<div>What it is</div> <p>Used to connect to a common VPC network. Resources in those projects can communicate with each other securely and efficiently across project boundaries using internal IPs.</p>	<div>What you should know</div> <ul style="list-style-type: none">When to use VPC sharing	<div>Review documents</div> <p>https://cloud.google.com/vpc/docs/shared-vpc</p>	<div>Video</div> <p>https://www.youtube.com/watch?v=WotV3D01tJA</p> <p>https://www.youtube.com/watch?v=YVWjrfEYgK4</p>	<div>My experience</div> <p>Understand VPC Sharing as it may be used in questions directly and indirectly</p>
<div>VPC Peering</div> 	<div>What it is</div> <p>Access G Suite and Google Cloud features over VPN or the internet, while cutting egress fees. Connect directly with Direct Peering, or choose a partner with Carrier Peering.</p>	<div>What you should know</div> <ul style="list-style-type: none">When to use VPC peering	<div>Review documents</div> <p>https://cloud.google.com/vpc/docs/vpc-peering</p>	<div>Video</div> <p>https://www.youtube.com/watch?v=htrm4xchvxs</p> <p>https://www.youtube.com/watch?v=cKaryf7qp9w</p>	<div>My experience</div> <p>Understand VPC Peering as it may be used in questions directly and indirectly</p>
<div>VPN</div> 	<div>What it is</div> <p>Connect your on-premises or other public cloud networks to GCP Virtual Private Cloud (VPC) securely over the internet through.</p>	<div>What you should know</div> <ul style="list-style-type: none">Multiple tunnelsECMPVPN use casesBGP dynamic routing	<div>Review documents</div> <p>https://cloud.google.com/network-connectivity/docs/vpn/concepts/overview</p> <p>https://cloud.google.com/network-connectivity/docs/router/how-to/configuring-bgp</p>		<div>My experience</div> <p>Understand VPNs as it may be used in questions directly and indirectly</p>
<div>Dedicated Interconnect</div> 	<div>What it is</div> <p>Use dedicated Interconnect to connect to Google's network through a highly available, low latency connection. (10GB higher)</p>	<div>What you should know</div> <ol style="list-style-type: none">Type (system and custom)Default route & Subnet routeStatic and Dynamic routesConnection speed	<div>Review documents</div> <p>Dedicated Interconnect overview</p>		<div>My experience</div> <p>Good to know</p>
<div>Partner Connect</div> 	<div>What it is</div> <p>Use Google Cloud Interconnect - Partner (Partner Interconnect) to connect to Google through a supported service provider. (From 50 MB up)</p>	<div>What you should know</div> <ol style="list-style-type: none">How to setup (VLAN, Key, request location and capacity)Difference L2 and L3	<div>Review documents</div> <p>Partner connect overview</p>		<div>My experience</div> <p>Good to know</p>
<div>VPC</div> 	<div>What it is</div> <p>A VPC network is your virtual network in the cloud just like an on-premise physical network or data centre or office network.</p>	<div>What you should know</div> <ul style="list-style-type: none">What is a VPCInternal and external accessSubnetsFirewall rules & Ingress and Egress trafficCloud DNS & private zonesIncreasing IP rangesHybrid connectivity	<div>Review documents</div> <p>https://cloud.google.com/vpc/docs/vpc</p> <p>https://cloud.google.com/blog/products/networking/introducing-private-dns-zones-resolve-to-keep-internal-networks-concealed</p> <p>https://cloud.google.com/hybrid-connectivity</p>	<div>Video</div> <p>https://www.youtube.com/watch?v=Qy4QlcFzsKM</p> <p>https://www.youtube.com/watch?v=Qyu3ljwtOnk</p>	<div>My experience</div>

HTTP(S) Load balancer	SSL Proxy	TCP Proxy	Network Load balancer	Internal load balancer	Kubernetes Load balancing	<div>Review documents</div> <div>https://cloud.google.com/load-balancing/docs/choosing-load-balancer</div>
						
<div>What it is</div> <div>Load balancer for HTTP(S) traffic, global, external, 80 or 8080 on 443.</div>	<div>What it is</div> <div>Load balancer for TCP with SSL offload, global, external. (25, 43, 110, 143, 195, 443, 465, 587, 700, 993, 995, 1883, and 5222)</div>	<div>What it is</div> <div>Load balancer for TCP without SSL, global, external. (25, 43, 110, 143, 195, 443, 465, 587, 700, 993, 995, 1883, and 5222)</div>	<div>What it is</div> <div>Load balancer for TCP/UDP no SSL offload, regional, external. (any port)</div>	<div>What it is</div> <div>Load balancer for TCP /UDP regional, Internal traffic (any port)</div>	<div>What it is</div> <div>This allows you balance between you application running in Kubernetes</div>	<div>Video</div> <div>https://www.youtube.com/watch?v=gdeOeu4E7eQ</div> <div>https://www.youtube.com/watch?v=D4XZkCJyqis</div>
<div>What you should know</div> <div><ul style="list-style-type: none">• Scope (global)• Traffic type (HTTPS)• Health checks</div>	<div>What you should know</div> <div><ul style="list-style-type: none">• Scope (global)• Traffic type (Non-HTTPS with SSL termination)</div>	<div>What you should know</div> <div><ul style="list-style-type: none">• Scope (global)• Traffic type (TCP/UDP)</div>	<div>What you should know</div> <div><ul style="list-style-type: none">• Scope (regional)• Traffic type (TCP/UDP)</div>	<div>What you should know</div> <div><ul style="list-style-type: none">• Scope Regional• Traffic type (Internal TCP/UDP)</div>	<div>What you should know</div> <div><ul style="list-style-type: none">• How it works• Type of LB supported (HTTPS-Ingress, Internal, External)</div>	<div>My experience</div> <div>Have a basic understanding of the use of different load balancers and its various use cases, e.g., Global vs Regional, External vs Internal, Traffic type, VoIP, TFTP, IP, TCP, UDP). Understand health checks.</div>

Security						
<div>Firewall</div> <div></div>	What it is VPC firewall rules let you allow or deny connections to or from your virtual machine (VM) instances based on a configuration that you specify	What you should know <ul style="list-style-type: none">• How a firewall works• Firewall rule Priority• Gcloud compute firewall-rules update	Review documents https://cloud.google.com/vpc/docs/firewalls	Video Firewall rules Firewall rule in GCP	Qwiklabs https://www.qwiklabs.com/focuses/22772?parent=catalog https://www.cloudskillsboost.google/focuses/22773?parent=catalog	My experience This should be basic knowledge for an engineer.
<div>Cloud Identity SSO</div> <div></div>	What it is Cloud Identity Single sign-on (SSO) is an authentication method that enables users to securely authenticate with multiple applications and websites by using just one set of credentials	What you should know <ul style="list-style-type: none">• Third-party identity providers• Identity Provider• Cloud access via Workspace• Use cases of SSO	Review documents Enable SSO Partner-operated SAML Single sign-on Creating and managing organizations	Video https://www.youtube.com/watch?v=fDnT0VERIFI		My experience This topic may be presented in a question or two
<div>Identity aware proxy</div> <div></div>	What it is Cloud Identity-Aware Proxy (Cloud IAP) controls access to your cloud applications and VMs running on (GCP)	What you should know <ul style="list-style-type: none">• How it works (HTTPS)• JWT (signed headers)• Use cases of IAP	Review documents https://cloud.google.com/iap/docs/external-identities https://cloud.google.com/iap/docs/concepts-overview	Video https://www.youtube.com/watch?v=XFYSAeGqyq4	Qwiklabs User authentication with Identity-Aware Proxy User Authentication: Identity-Aware Proxy	My experience Have a basic understanding of how IAP is used
<div>CMEK</div> <div></div>	What it is For greater control you can use customer-managed encryption keys (CMEK). This way you control and manage key encryption keys in Cloud KMS	What you should know <ul style="list-style-type: none">• What products support this service (BigQuery, Cloud Build, Cloud Dataproc, Cloud Storage, Compute Engine)	Review documents https://cloud.google.com/kms/docs/cmek	Video Data Encryption and Managed Encryption Keys Cloud KMS encrypt/decrypt Cloud HSM	Qwiklabs https://www.qwiklabs.com/focuses/1713?locale=zh_TW&parent=catalog	My experience
<div>Secret manager</div> <div></div>	What it is Applications often require access to small pieces of sensitive data at build or run time. These pieces of data are often referred to as secrets.	What you should know <ul style="list-style-type: none">• Use cases of secret manager	Review documents https://cloud.google.com/secret-manager/docs/overview	Video https://www.youtube.com/watch?v=nsrADMrp4BI		My experience How do you make sure your images are safe and approved?

Databases						
<div>Cloud SQL</div> 	What it is Cloud SQL is a fully-managed high performance, scalable database service that is used to set up, maintain, manage, and administer MySQL and PostgreSQL databases	What you should know <ul style="list-style-type: none">● Use cases where this type of database is a good choice● It's a relational database● Great for systems with frequent queries and online transaction processing	Review documents https://cloud.google.com/sql/docs/introduction	Video https://www.youtube.com/watch?v=Kl8ig2BtLAY https://www.youtube.com/watch?v=BQIQ-BTMR1U	Qwiklabs https://www.qwiklabs.com/quests/52/	My experience Know the different database options and where each would function perfectly in different scenarios, database related questions will appear.
<div>Cloud Spanner</div> 	What it is Cloud spanner is a fully managed relational database that scales horizontally and offers transactional consistency on a global scale	What you should know <ul style="list-style-type: none">● Use cases where this type of database is a good choice● It's a relational database● Its horizontally scalable● Spanner has global scale consistency	Review documents Introducing Cloud Spanner	Video What is Cloud Spanner Introduction to Google Cloud Spanner	Qwiklabs https://www.qwiklabs.com/focuses/1774?parent=catalog	My experience Know the different database options and where each would function perfectly in different scenarios, database related questions will appear
<div>Cloud Datastore</div> 	What it is Google Cloud Datastore is a fully managed, schema-less database for storing non-relational data.	What you should know <ul style="list-style-type: none">● Use cases where this type of database is a good choice● It's a non-relational database● It's a N0SQL document store	Review documents https://cloud.google.com/datastore/docs/concepts/overview	Video https://www.youtube.com/watch?v=YUmbM7hD7fQ https://www.youtube.com/watch?v=RHkL0KH4P8c	Qwiklabs https://www.qwiklabs.com/focuses/941?parent=catalog https://www.qwiklabs.com/focuses/1063?parent=catalog	My experience Know the different database options and where each would function perfectly in different scenarios, database related questions will appear.
<div>Cloud Bigtable</div> 	What it is Bigtable is a distributed storage system for managing structured data that is designed to scale to petabytes of data	What you should know <ul style="list-style-type: none">● Use cases where this type of database is a good choice● It scales petabytes of data● Great for real-time analytics on workloads	Review documents https://cloud.google.com/bigtable/docs/overview	Video https://www.youtube.com/watch?v=P4q4nqJAamo https://www.youtube.com/watch?v=qLqE40F5HwM	Qwiklabs https://www.qwiklabs.com/focuses/579?parent=catalog	My experience Know the different database options and where each would function perfectly in different scenarios, database related questions will appear.
<div>Firestore</div> 	What it is Cloud Firestore is a NoSQL document database that simplifies storing, syncing, and querying data for your mobile and web apps at global scale.	What you should know <ul style="list-style-type: none">● Use cases where this type of database is a good choice● It's a N0SQL database● It's built for global apps	Review documents https://firebase.google.com/docs/firestore https://firebase.google.com/products/firestore	Video https://www.youtube.com/watch?v=QcsAb2RR52c https://www.youtube.com/watch?v=v_hR4K4auoQ	Qwiklabs https://www.qwiklabs.com/focuses/660?parent=catalog https://www.qwiklabs.com/focuses/8392?parent=catalog	My experience Know the different database options and where each would function perfectly in different scenarios, database related questions will appear.

Other Modules

<div>Marketplace</div> <div></div>	<div>What it is</div> <div>Marketplace is where you can quickly deploy software on Google Cloud Platform</div>	<div>What you should know</div> <div><ul style="list-style-type: none">• What use and deployment options the marketplace offers customers</div>	<div>Review documents</div> <div>https://cloud.google.com/marketplace/docs</div>	<div>Video</div> <div>https://www.youtube.com/watch?v=H8rRUUxoxoM</div>		<div>My experience</div> <div>Have an understanding what the market place offers</div>
<div>Billing</div> <div></div>	<div>What it is</div> <div>A Cloud Billing account defines who pays for a given set of Google Cloud resources. To use Google Cloud services, you must have a valid Cloud Billing account(s)</div>	<div>What you should know</div> <div><ul style="list-style-type: none">• Billing Budgets and Alerts• How billing works with Big Query/ how billing costs are analysed• How to move billing accounts• Billing roles• Enable, disable, or change billing• Project migration to a billing account• Visualizing billing data via Data Studio</div>	<div>Review documents</div> <div>https://cloud.google.com/billing/docs/concepts https://cloud.google.com/resource-manager/docs/migrating-projects-billing https://cloud.google.com/billing/docs/how-to/export-data-bigquery https://cloud.google.com/billing/docs/how-to/billing-access https://cloud.google.com/billing/docs/how-to/modify-project https://cloud.google.com/resource-manager/docs/project-migration</div>	<div>Video</div> <div>https://www.youtube.com/watch?v=hqbtIDnAoFY https://www.youtube.com/watch?v=NeRYUoR4u0s https://www.youtube.com/watch?v=maFV-fZA6To https://www.youtube.com/watch?v=F4omjjMZ54k</div>	<div>Qwiklabs</div> <div>https://www.qwiklabs.com/quests/90</div>	<div>My experience</div> <div>Have a solid grasp on billing concepts This topic usually appears</div>
<div>Price calculator</div> <div></div>	<div>What it is</div> <div>Check the approximate cost of you cloud services</div>	<div>What you should know</div> <div>Use of the pricing calculator</div>	<div>Review documents</div> <div>https://cloud.google.com/free/docs/estimate-costs-google-cloud-platform https://cloud.google.com/products/calculator/</div>	<div>Video</div> <div>https://www.youtube.com/watch?v=gZidr8ztscw</div>		<div>My experience</div> <div>Know when this tool is used</div>
<div>Cloud Operations (logging and monitoring)</div>	<div>What it is</div> <div>Stackdriver Logging allows you to store, search, analyze, monitor, and alert on log data and events from Google Cloud</div>	<div>What you should know</div> <div><ul style="list-style-type: none">• Cloud Logging Agent• How to troubleshoot logs</div>	<div>Review documents</div> <div>https://cloud.google.com/logging/docs</div>	<div>Video</div> <div>https://www.youtube.com/watch?v=uOIGFEHoSUW</div>	<div>Qwiklabs</div> <div>https://www.qwiklabs.com/quests/35</div>	<div>My experience</div> <div>Some tricky combination may pop up & you should look at all the components of this area.</div>

	Platform and Amazon Web Services (AWS).	<ul style="list-style-type: none">• Configure and manage sinks• Roles and permissions• Stackdriver Workspaces• Using resource groups	https://cloud.google.com/logging/docs/routing/overview https://cloud.google.com/monitoring/access-control#mon_roles_desc https://cloud.google.com/monitoring/groups	https://www.youtube.com/watch?v=M2bQxpyBpH0	https://www.qwiklabs.com/quests/81	
Deployment Manager 	What it is Deployment Manager is an infrastructure deployment service that automates the creation and management of Google Cloud resources	What you should know <ul style="list-style-type: none">• What is deployment manager and its use?• Templates• Checking deployment status• API as a type provider• Updating a Deployment	Review documents Get started with DM Create basic template Updating a deployment	Video https://www.youtube.com/watch?v=qVKp7W1bfrE https://www.youtube.com/watch?v=giWJqEizPQM	Qwiklabs	My experience Know when and how this tool is used
IAM & Admin 	What it is	What you should know <ul style="list-style-type: none">• Users• Using Groups• Best Practice in Access Management• Creating and managing service accounts• Service account key• Google cloud Directory Sync (GCDS)• IAM roles for auditing	Review documents https://cloud.google.com/iam/docs/creating-managing-service-accounts https://tools.google.com/dlpage/dirsync/ https://cloud.google.com/iam/docs/job-functions/auditing#scenario_external_auditors	Video https://www.youtube.com/watch?v=KRzdAD7DlJE https://www.youtube.com/watch?v=vaylQUuIANK https://www.youtube.com/watch?v=w81K7wk9Dhc	Qwiklabs https://www.qwiklabs.com/focuses/551?parent=catalog	My experience This is an important topic and a few questions would be related to it



Thanks for reviewing

Please visit the official certification outline [HERE](#) | Sample questions [HERE](#) | Get other GCP exam prep sheet on startcloudnow.com [HERE](#)

PS. These are my notes and tips for the newest version of this exam. Google reserve the right to change the requirements so please always check out the official exam guide. This guide is revision tool and can be used just before the exam or as a refresher in general. All the topics listed have a possibility of appearing along with others.

This prep sheet is free, it just cost me time and energy to make this as concise as possible. Please feel free to share with people who maybe interest. If it helps you, please give me a shoutout on LinkedIn, it's just a form of feedback and encouragement to continue to develop these.

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