

Google Cloud

DEVELOPER'S CHEAT SHEET

v2020.4.7

Created by the Google Developer Relations Team Maintained at https://github.com/gregsramblings/google-cloud-4-words

COMPUTE

Cloud Run Serverless for containerized applications Cloud Functions Event-driven serverless functions VMs, GPUs, TPUs, Disks Compute Engine Managed Kubernetes/containers Kubernetes Engine (GKE) Managed app platform App Engine Bare Metal Solution Hardware for specialized workloads Preemptible VMs Short-lived compute instances Shielded VMs Hardened VMs Sole-tenant nodes Dedicated physical servers

STORAGE

Cloud Filestore Managed NFS server Cloud Storage Multi-class multi-region object storage Persistent Disk Block storage for VMs Local SSD VM locally attached SSDs

DATABASE

Cloud Bigtable Petabyte-scale, low-latency, non-relational Cloud Firestore Serverless NoSQL document DB Managed Redis and Memcached Cloud Memorystore Cloud Spanner Horizontally scalable relational DB Cloud SQL Managed MySQL,PostgreSQL,SQL Server

DATA AND ANALYTICS

BigQuery BigQuery BI Engine In-memory analytics engine BigQuery model training/serving BigQuery ML Cloud Composer Managed workflow orchestration service Cloud Data Fusion Graphically manage data pipelines Cloud Dataflow Stream/batch data processing Cloud Dataprep Visual data wrangling Cloud Dataproc Managed Spark and Hadoop Cloud Pub/Sub Global real-time messaging Data Catalog Metadata management service Data Studio Collaborative data exploration/dashboarding Looker Enterprise BI and Analytics

Data warehouse/analytics

HYBRID AND MULTI-CLOUD

Anthos Enterprise hybrid/multi-cloud platform Anthos GKE Hybrid/on-prem Kubernetes Engine Anthos Config Management Policy and security automation Anthos Service Mesh Managed service mesh (Istio) Cloud Run for Anthos Servlerless development for Anthos GCP Marketplace for Anthos Pre-configured containerized apps Migrate VMs to Kubernetes Engine Migrate for Anthos Operations Monitoring, logging, troubleshooting Cloud Build Continuous integration/delivery platform Traffic Director Service mesh traffic management Apigee API Management API management, development, security

AI/ML

Al Hub Hosted AI component sharing Al Platform Data Labeling Data labeling by humans Preconfigured VMs for deep learning Al Platform Deep Learning VMs Al Platform Deep Learning Containers Preconfigured containers for deep learning Al Platform Notebooks Managed JupyterLab notebook instances Al Platform Pipelines Hosted ML workflows Al Platform Predictions Autoscaled model serving Al Platform Training Distributed AI training Al Platform Managed platform for ML AutoML Natural Language Custom text models AutoML Tables Custom structured data models AutoML Translation Custom domain-specific translation AutoML Video Intelligence Custom video annotation models AutoML Vision Custom image models Cloud Natural Language API Text parsing and analysis Cloud Speech-To-Text API Convert audio to text Cloud Talent Solutions API Job search with ML Cloud Text-To-Speech API Convert text to audio Cloud TPU Hardware acceleration for ML Cloud Translation API Language detection and translation Cloud Video Intelligence API Scene-level video annotation Cloud Vision API Image recognition and classification Contact Center Al Al in your contact center Dialogflow Create conversational interfaces Document Al Analyze, classify, search documents Explainable Al Understand ML model predictions Recommendations Al Create custom recommendations

NETWORKING

Vision Product Search

Carrier Peering Peer through a carrier **Direct Peering** Peer with GCP Dedicated Interconnect Dedicated private network connection Partner Interconnect Connect on-prem network to VPC Cloud Armor DDoS protection and WAF Cloud CDN Content delivery network Cloud DNS Programmable DNS serving Cloud Load Balancing Multi-region load distribution/balancing Cloud NAT Network address translation service VPC/on-prem network route exchange (BGP) Cloud VPN (HA) VPN (Virtual private network connection) **Network Service Tiers** Price vs performance tiering Network Telemetry Network telemetry service Traffic Director Service mesh traffic management Service-aware network management Google Cloud Service Mesh Virtual Private Cloud Software defined networking **VPC Service Controls** Security perimeters for API-based services Network Intelligence Center Network monitoring and topology

Visual search for products

GAMING

Cloud HSM

Cloud EKM

Cloud IAM

Cloud KMS

Security Key Enforcement

Shielded VMs

Google Cloud Game Servers Orchestrate Agones clusters

INTERNET OF THINGS (IOT)

Cloud IoT Core Manage devices, ingest data

IDENTITY AND SECURITY

Access Transparency Audit cloud provider access Binary Authorization Kubernetes deploy-time security Cloud Audit Logs Audit trails for GCP Cloud Data Loss Prevention API Classify and redact sensitive data Hardware security module service External keys you control Resource access control Cloud Identity Manage users, devices & apps Cloud Identity-Aware Proxy Identity-based app access Hosted key management service Cloud Resource Manager Cloud project metadata management Cloud Security Command Center Security management & data risk platform Cloud Security Scanner App engine security scanner Context-aware Access End-user attribute-based access control **Event Threat Detection** Scans for suspicious activity Managed Service for Microsoft Managed Microsoft Active Directory Active Directory Secret Manager

Store and manage secrets

Two-step key verification

Hardened VMs

IDENTITY AND SECURITY (CONT.)

Two-factor authentication (2FA) device Titan Security Key **VPC Service Controls** VPC data constraints

APIs for cloud services

Continuous integration/delivery platform

MANAGEMENT TOOLS

Cloud APIs

Cloud Billing API Programmatically manage GCP billing Cloud Billing Billing and cost management tools Cloud Console Web-based management console Templated infrastructure deployment Cloud Deployment Manager Cloud Mobile App iOS/Android GCP manager app Internal Solutions Catalog Private Catalog Cloud Debugger Live production debugging **Error Reporting** App error reporting Cloud Logging Centralized logging

Infrastructure and application monitoring Cloud Monitoring Cloud Profiler CPU and heap profiling Cloud Trace App performance insights

Monitor GCP services Transparent SLIs

DEVELOPER TOOLS

Cloud Build

IntelliJ GCP tools Cloud Code for IntelliJ VS Code GCP tools Cloud Code for VS Code Cloud Code Cloud native IDE extensions Cloud Scheduler Managed cron job service Cloud SDK CLI for GCP Browser-based terminal/CLI Cloud Shell Cloud Source Repositories Hosted private git repos Cloud Tasks Asynchronous task execution Cloud Tools for Eclipse Eclipse GCP tools Visual Studio GCP tools Cloud Tools for Visual Studio Container Analysis

Automated security scanning Container Registry Private container registry/storage Artifact Registry Universal package manager Gradle App Engine plugin Gradle App Engine Plugin Maven App Engine Plugin Maven App Engine plugin

MIGRATION TO GCP

BigQuery Data Transfer Service Cloud Data Transfer Google Transfer Appliance Migrate for Anthos Migrate for Compute Engine Migrate from Amazon Redshift Migrate from Teradata Storage Transfer Service VM Migration

Migrate VMs to GKE containers Compute Engine migration tools Migrate from Redshift to BigQuery Migrate from Teradata to BigQuery Online/on-premises data transfer VM migration tools Cloud Foundation Toolkit Infrastructure as Code templates

Bulk import analytics data

Rentable data transport box

Data migration tools/CLI

API PLATFORM AND ECOSYSTEMS

API metrics API Analytics **API** Monetization Monetize APIs Apigee API Platform Develop, secure, monitor APIs Apigee Hybrid Manage hybrid/multi-cloud API environments Apigee Sense API protection from attacks Cloud Endpoints Cloud API gateway Cloud Healthcare API Healthcare system GCP interoperability API management portal Developer Portal GCP Marketplace Partner & open source marketplace

GOOGLE MAPS PLATFORM

Directions API Get directions between locations Distance Matrix API Multi-origin/destination travel times Geocoding API Convert address to/from coordinates Geolocation API Derive location without GPS Maps Embed API Display iframe embedded maps Maps JavaScript API Dynamic web maps Maps SDK for Android Maps for Android apps Maps SDK for iOS Maps for iOS apps Maps Static API Display static map images Maps SDK for Unity Unity SDK for games Maps URLs URL scheme for maps Rest-based Places features Places API

GOOGLE MAPS PLATFORM (CONT.)

Places Library, Maps JS API Places SDK for Android Places SDK for iOS Street View Static API Street View Service

Places features for web Places features for Android Places feature for iOS Convert coordinates to roads Static street view images Street view for JavaScript Convert coordinates to timezone

Manage G Suite resources

Dynamic interactive email

Extend and automate everything

Provision and manage classrooms

Interactive email using schema.org

Storefront for integrated applications

Manage your organization's eDiscovery

Create and manage calendars

Unified search for enterprise

Create and edit documents

Drive file selection widget

Conversational bots in chat

Read and write spreadsheets

Create and edit presentations

Search, read & update Tasks

Manage user's Contacts

Read and write files

Extend G Suite apps

Enhance Gmail

Retrieve Google Drive activity

G SUITE PLATFORM

Roads API

Time Zone API

Admin SDK

AMP for Email Apps Script Calendar API Classroom API Cloud Search Docs API Drive Activity API Drive API Drive Picker Email Markup G Suite Add-ons G Suite Marketplace Gmail API Hangouts Chat Bots People API Sheets API Slides API

MOBILE (FIREBASE)

Task API

Vault API

Cloud Firestore Document store and sync Event-driven serverless applications Cloud Functions for Firebase Cloud Storage for Firebase Object storage and serving Crashlytics Crash reporting and analytics Create A/B test experiments Firebase A/B Testing Firebase App Distribution Trusted tester early access Firebase Authentication Drop-in authentication Firebase Cloud Messaging Send device notifications Firebase Dynamic Links Link to app content Firebase Extensions Pre-packaged development solutions Firebase Hosting Web hosting with CDN/SSL Firebase In-App Messaging Send in-app contextual messages Firebase Performance Monitoring App/web performance monitoring Firebase Predictions Predict user targeting Firebase Realtime Database Real-time data synchronization Remotely configure installed apps Firebase Remote Config Firebase Test Lab Mobile testing device farm Google Analytics for Firebase Mobile app analytics ML APIs for mobile ML Kit for Firebase

ADDITIONAL RESOURCES

Google Cloud Home Page Google Cloud Blog Google Cloud Open Source **GCP Medium Publication** Apigee Blog Firebase Blog G Suite Developers Blog G Suite GitHub G Suite Twitter Google Cloud Certifications Google Cloud System Status Google Cloud Training Google Developers Blog Google Maps Platform Blog Google Open Source Blog Google Security Blog Kaggle Home Page Kubernetes Blog Regions and Network Map

cloud.google.com cloud.google.com/blog opensource.google/projects/list/cloud medium.com/google-cloud apigee.com/about/blog firebase.googleblog.com gsuite-developers.googleblog.com github.com/gsuitedevs twitter.com/gsuitedevs cloud.google.com/certification status.cloud.google.com cloud.google.com/training developers.googleblog.com mapsplatform.googleblog.com opensource.googleblog.com security.googleblog.com www.kaggle.com kubernetes.io/blog cloud.google.com/about/locations