

# Google Cloud

## DEVELOPER'S CHEAT SHEET

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

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App Engine Cloud Functions Cloud Run Compute Engine

Kubernetes Engine (GKE)

COMPUTE

Managed app platform Event-driven serverless functions Serverless for containerized applications VMs. GPUs. TPUs, Disks Managed Kubernetes/containers Enterprise hybrid/multi-cloud platform

Anthos

Cloud Storage Object storage and serving Nearline Archival occasional access storage Coldline Archival rare access storage Persistent Disk VM-attached disks Cloud Filestore Managed NFS server

#### DATABASES

Cloud Bigtable Petabyte-scale, low-latency, non-relational Cloud Datastore Horizontally scalable document DB Cloud Firestore Strongly-consistent serverless document DB Cloud Memorystore Managed Redis Cloud Spanner Horizontally scalable relational DB Cloud SQL Managed MySQL and PostgreSQL

### DATA AND ANALYTICS

Data warehouse/analytics BigQuery BigQuery BI Engine In-memory analytics engine BigQuery ML BigQuery model training/serving Cloud Composer Managed workflow orchestration service Cloud Data Fusion Graphically manage data pipelines Cloud Dataflow Stream/batch data processing Cloud Datalab Managed Jupyter notebook 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 Genomics Managed genomics platform

Al Hub Hosted Al component sharing Al Platform Managed platform for ML Al Platform Data Labeling Data labeling by humans Al Platform Deep Learning VMs Preconfigured VMs for deep learning Al Platform Notebooks Managed JupyterLab notebook instances Al Platform Training Parallel and distributed training

Al Platform Predictions AutoML Natural Language AutoML Tables AutoML Translation AutoML Video Intelligence AutoML Vision Cloud Al Building Blocks Cloud Natural Language API Cloud Speech-To-Text API Cloud Talent Solutions API Cloud Text-To-Speech API Cloud Translation API Cloud Video Intelligence API Cloud Vision API Cloud TPU Dialogflow Enterprise Edition Document Understanding Al Recommendations Al Vision Product Search

Autoscaled model serving Custom text models Custom structured data models Custom domain-specific translation Custom video annotation models Custom image models Hosted Al component repository Text parsing and analysis Convert audio to text Job search with ML Convert text to audio Language detection and translation Scene-level video annotation Image recognition and classification Hardware acceleration for ML Create conversational interfaces Analyze, classify, search documents Create custom recommendations Visual search for products

#### NETWORKING

Virtual Private Cloud

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 Cloud NAT Network address translation service Page VPN Virtual private network connection Network Service Tiers Price vs performance tiering Network Telemetry Network telemetry service Traffic Director Service mesh traffic management Google Cloud Service Mesh Service-aware network management

## INTERNET OF THINGS (IoT)

Cloud IoT Care Device management and ingest data

Software defined networking

Access Transparency Binary Authorization Cloud Audit Loss Cloud HSM Cloud IAM Cloud Identity Cloud Identity-Aware Proxy Cloud Key Management Service Cloud Resource Manager Cloud Security Scanner Context-aware Access Event Threat Detection Security Key Enforcement Shielded VMs Titan Security Key VPC Service Controls

Audit cloud provider access Kubernetes deploy-time security Audit trails for GCP Cloud Data Loss Prevention API. Classify and reduct sensitive data Hardware security module service Resource access control Manage users, devices & apps Identity-based app sign in Hosted key management service Cloud project metadata management App engine security scanner Cloud Security Command Center Asset inventory, discovery, search, management End-user attribute-based access control Scans for suspicious activity Two-step key verification Hardened VMs Two-factor authentication (2FA) device VPC constrain data

## MANAGEMENT TOOLS

Cloud APIs

Cloud Billing

Cloud Billing API

Cloud Mobile App

Cloud Deployment Manager

Cloud Console

APIs for cloud services Billing and cost management tools Programmatically manage GCP billing Web-based management console Templated infrastructure deployment iOS/Android GCP manager app

Cloud Shell Stackdriver Debugge Stackdriver Error Reporting Stackdriver Logging Stackdriver Monitoring Stackdriver Profiler Stackdriver Transparent SLIs

Stackdriver Trace

Cloud SDK

App error reporting Centralized logging Infrastructure and application monitoring CPU and heap profiling Monitor GCP services App performance insights

Browser-based terminal/CLI

Live production debugging

## DEVELOPER TOOLS

Cloud Build Continuous integration/delivery platform Cloud Code Cloud native IDE extensions Cloud Source Repositories Hosted private git repos Cloud Scheduler Managed cron job service Cloud Tasks Asynchronous task execution Intellial GCP tool Cloud Tools for Intellial Cloud Tools for PowerShell PowerShell GCP tools Cloud Tools for Visual Studio Visual Studio GCP tools Cloud Tools for Eclipse Eclipse GCP tools Container Registry Private container registry/storage Gradle App Engine Plugin Gradle App Engine plugin Mayer App Engine Plugin Maven App Engine plugin

CLI for GCP

#### MIGRATION TO GCP

Cloud Data Transfer Google Transfer Appliance Cloud Storage Transfer Service Cloud to cloud transfers BigQuery Data Transfer Service Microte from America Redshift Migrate from Teradata Migrate for Anthos Migrate for Compute Engine VM Migration

Data migration tools/CLI Rentable data transport box Bulk import analytics data Migrate from Redshift to BigQuery Migrate from Teradata to BigQuery Migrate VMs to GKE containers Compute Engine migration tools VM migration tools

## API PLATFORM AND ECOSYSTEMS

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

Directions API

Distance Matrix API Geocodino API Geolocation API Maos Embed API Maps JavaScript API Maps SDK for Android Mans SDK for iOS Mags Static API Mags Unity SDK Mags URLs Places API Places Library, Maps JS API Places SDK for Android Places SDK for IOS Roads API Street View Static API Street View Service Time Zone API

Calculate travel times Convert address to/from coordinates Derive location without GPS Web embedded maps Dynamic web maps Maps SDK for Android Maos SDK for iOS Web static maps Unity SDK for games URL scheme for maps Metadata about places (REST) Metadata about places (JavaScript) Places SDK for Android Places SDK for IOS Metadata about roads Static street view images Interactive street view images Convert coordinates to timezone

Get directions between locations

# G SUITE PLATFORM

App Maker Assistive app building Apps Script Extend and automate everything Editor Add-ons Extend Docs, Sheets, Slides Gmail Add-ons Contextual agos in Grail Hanoputs Chat Bots Conversational bots in chat Calendar API Create and manage calendars Classroom API Provision and manage classrooms Does API Create and edit documents Drive API Read and write files Gmoil API Enhance Gmail Sheets API Read and write spreadsheets Sides API Create and edit presentations Drive Picker Drive file selection widget Cloud Search Unified search for enterprise Admin SDK Manage G Suite resources Email Markup Interactive email using schema.org G Suite Marketolace Storefront for integrated applications Other G Suite APIs/SDKs Contacts, Google+, Tasks, Vault...

Cloud Firestore

Cloud Functions for Firebase Cloud Storage for Firebase Crashlytics Firebase A/B Testing Firebase App Indexing Firebase Authentication Firebase Cloud Messaging Firebase Dynamic Links Firebase Hosting Firebase In-App Messaging Firebase Performance Monitoring App performance monitoring Firebase Predictions Firebase Realtime Database Firebase Remote Config Firebase Test Lab Google Analytics for Firebase ML Kit for Firebase

Document store and sync Event-driven serverless applications Object storage and serving Crash reporting and analytics Create A/B test experiments App/Google search integration Dron-in authentication Send device notifications Link to app content Web hosting with CDN/SSL Send in-app contextual messages Predict user targeting Real-time data synchronization Remotely configure installed apps Mobile testing device farm Mobile app analytics ML APIs for mobile

## GCP FOUNDATIONAL OPEN SOURCE PROJECTS

Apache Beam Batch/streaming data processing gRPC RPC framework gVisor Secure container runtime Istio Connect and secure services Knative Serverless framework for Kubernetes Kubeflow ML Tool kit for Kubernetes Kubemeter Management of containerized applications OpenCensus Cloud native observability framework TensorFlow MI fromownrk

#### ADDITIONAL RESOURCES

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

cloud.google.com cloud.google.com/blog medium.com/google-cloud aninee com/about/blon firebase.googleblog.com gsuite-developers.googleblog.com 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 kubemetes in/blon cloud.google.com/about/locations