

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

Feedback? **y**@gregsramblings

COMPUTE

App Engine Cloud Functions Cloud Run Compute Engine Kubernetes Engine (GKE) Anthos

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

Petabyte-scale, low-latency, non-relational

STORAGE

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

DATABASES

Cloud Bigtable 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

BigQuery BigQuery BI Engine BigQuery ML Cloud Composer Cloud Data Fusion Cloud Dataflow Cloud Datalab Cloud Dataprep Cloud Dataproc Cloud Pub/Sub Data Catalog Data Studio

Data warehouse/analytics In-memory analytics engine BigQuery model training/serving Managed workflow orchestration service Graphically manage data pipelines Stream/batch data processing Managed Jupyter notebook Visual data wrangling Managed Spark and Hadoop Global real-time messaging Metadata management service Collaborative data exploration/dashboarding

Genomics Managed genomics platform

AI/ML

Al Hub Al Platform Al Platform Data Labeling Al Platform Notebooks Al Platform Training

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

Al Platform Predictions AutoML Natural Language AutoML Tables AutoML Translation AutoML Video Intelligence AutoML Vision Cloud AI 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

Autoscaled model serving Custom text models Custom structured data models Custom domain-specific translation Custom video annotation models Custom image models Hosted AI 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

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 Programmable DNS serving Cloud DNS Cloud Load Balancing Multi-region load distribution Cloud NAT Network address translation service IPsec 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 Virtual Private Cloud Software defined networking

INTERNET OF THINGS (IoT)

Cloud IoT Core Device management and ingest data

IDENTITY AND SECURITY

Access Transparency Binary Authorization Cloud Audit Logs Cloud HSM Cloud IAM Cloud Identity Cloud Identity-Aware Proxy Cloud Key Management Service Hosted key management service Cloud Resource Manager Cloud Security Scanner Context-aware Access **Event Threat Detection** Security Key Enforcement Shielded VMs Titan Security Key

Audit cloud provider access Kubernetes deploy-time security Audit trails for GCP Cloud Data Loss Prevention API Classify and redact sensitive data Hardware security module service Resource access control Manage users, devices & apps Identity-based app sign in 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 Console Cloud Deployment Manager Cloud Mobile App

VPC Service Controls

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 Browser-based terminal/CLI Stackdriver Debugger Live production debugging Stackdriver Error Reporting App error reporting Stackdriver Logging Centralized logging Stackdriver Monitoring Stackdriver Profiler

Infrastructure and application monitoring CPU and heap profiling Stackdriver Transparent SLIs Monitor GCP services Stackdriver Trace App performance insights

DEVELOPER TOOLS

Cloud SDK Cloud Build Cloud Code Cloud Source Repositories Cloud Scheduler Cloud Tasks Cloud Tools for IntelliJ Cloud Tools for PowerShell Cloud Tools for Visual Studio Cloud Tools for Eclipse Container Registry Gradle App Engine Plugin Maven App Engine Plugin

CLI for GCP Continuous integration/delivery platform Cloud native IDE extensions Hosted private git repos Managed cron job service Asynchronous task execution IntelliJ GCP tool PowerShell GCP tools Visual Studio GCP tools Eclipse GCP tools Private container registry/storage Gradle App Engine plugin Maven App Engine plugin

MIGRATION TO GCP

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

Data migration tools/CLI Rentable data transport box Cloud to cloud transfers 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 Manage hybrid/multi-cloud API environments Apigee Hybrid Cloud Endpoints Cloud API gateway Healthcare system GCP interoperability Cloud Healthcare API Developer Portal API managment portal GCP Marketplace Partner & open source marketplace

GOOGLE MAPS PLATFORM

Time Zone API

Directions API Get directions between locations Distance Matrix API Calculate travel times Geocoding API Convert address to/from coordinates Geolocation API Derive location without GPS Maps Embed API Web embedded maps Maps JavaScript API Dynamic web maps Maps SDK for Android Maps SDK for Android Maps SDK for iOS Maps SDK for iOS Maps Static API Web static maps Maps Unity SDK Unity SDK for games Maps URLs URL scheme for maps Places API Metadata about places (REST) Places Library, Maps JS API Metadata about places (JavaScript) Places SDK for Android Places SDK for Android Places SDK for iOS Places SDK for iOS Roads API Metadata about roads Street View Static API Static street view images Street View Service Interactive street view images

Convert coordinates to timezone

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 apps in Gmail Hangouts Chat Bots Conversational bots in chat Calendar API Create and manage calendars Classroom API Provision and manage classrooms Docs API Create and edit documents Drive API Read and write files **Enhance Gmail** Gmail API Sheets API Read and write spreadsheets Slides API Create and edit presentations Drive Picker Drive file selection widget Cloud Search Unified search for enterprise Manage G Suite resources Admin SDK Email Markup Interactive email using schema.org G Suite Marketplace Storefront for integrated applications

MOBILE (FIREBASE)

Other G Suite APIs/SDKs

Cloud Firestore Cloud Functions for Firebase Cloud Storage for Firebase Crashlytics Firebase A/B Testing Firebase App Indexing Firebase Authentication Firebase Cloud Messaging

Firebase Hosting Firebase In-App Messaging

Firebase Dynamic Links

Firebase Predictions Firebase Realtime Database Firebase Remote Config Firebase Test Lab Google Analytics for Firebase

ML Kit for Firebase

TensorFlow

Crash reporting and analytics Create A/B test experiments App/Google search integration Drop-in authentication Send device notifications Link to app content Web hosting with CDN/SSL Send in-app contextual messages Firebase Performance Monitoring App performance monitoring Predict user targeting Real-time data synchronization Remotely configure installed apps Mobile testing device farm Mobile app analytics ML APIs for mobile

Contacts, Google+, Tasks, Vault...

Event-driven serverless applications

Document store and sync

Object storage and serving

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 Kubernetes Management of containerized applications Cloud native observability framework OpenCensus

ML framework

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 Kaggle Home Page Kubernetes Blog Regions and Network Map

cloud.google.com cloud.google.com/blog medium.com/google-cloud apigee.com/about/blog 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 kubernetes.io/blog

cloud.google.com/about/locations