

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

COMPUTE

App Engine Cloud Functions Cloud Run Compute Engine Kubernetes Engine (GKE) GKE On-Prem

Managed app platform Event-driven serverless functions Serverless for containerized applications VMs, GPUs, TPUs, Disks

Managed Kubernetes/containers Run GKE clusters anywhere Enterprise hybrid/multi-cloud platform

STORAGE

Anthos

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

DATABASES

Cloud SQL

BigQuery

Cloud Bigtable Cloud Datastore Cloud Firestore Cloud Memorystore Cloud Spanner

Petabyte-scale, low-latency, non-relational Horizontally scalable document DB Strongly-consistent serverless document DB

Managed Redis

Horizontally scalable relational DB Managed MySQL and PostgreSQL

DATA AND ANALYTICS

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

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 Data Studio

Managed genomics platform Genomics

AI/ML

Al Hub Al Platform Al Platform Data Labeling Al Platform Deep Learning VMs Al Platform Notebooks

Hosted AI component sharing Managed platform for ML Data labeling by humans Preconfigured VMs for deep learning Managed JupyterLab notebook instances

Al Platform 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

Custom image models Hosted AI component repository Text parsing and analysis Convert audio to text Convert text to audio Language detection and translation Cloud Video Intelligence API Scene-level video annotation Image recognition and classification Hardware acceleration for ML Dialogflow Enterprise Edition Create conversational interfaces Document Understanding Al Analyze, classify, search documents

Parallel and distributed training

Custom structured data models

Custom video annotation models

Create custom recommendations

Visual search for products

Custom domain-specific translation

Autoscaled model serving

Custom text models

Job search with ML

NETWORKING

Recommendations Al

Vision Product Search

Cloud Vision API

Cloud TPU

Carrier Peering Peer through a carrier Direct Peering Peer with GCP Dedicated private network connection Dedicated Interconnect 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 service Network Telemetry 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

Audit cloud provider access Access Transparency Binary Authorization Kubernetes deploy-time security Cloud Audit Logs Audit trails for GCP Cloud Data Loss Prevention API Classify and redact sensitive data Cloud HSM Hardware security module service Cloud IAM Resource access control Cloud Identity Manage users, devices & apps Cloud Identity-Aware Proxy Identity-based app sign in Cloud Key Management Service Hosted key management service Cloud Resource Manager Cloud project metadata management Cloud Security Scanner App engine security scanner Cloud Security Command Center Asset inventory, discovery, search, management Context-aware Access End-user attribute-based access control Scans for suspicious activity **Event Threat Detection** Security Key Enforcement Two-step key verification Shielded VMs Hardened VMs Titan Security Key Two-factor authentication (2FA) device **VPC Service Controls** VPC constrain data

MANAGEMENT TOOLS

Cloud APIs Cloud Billing Cloud Billing API Cloud Console Cloud Deployment Manager

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

Cloud Mobile App Cloud Shell Stackdriver Debugger Stackdriver Error Reporting Stackdriver Logging Stackdriver Monitoring Stackdriver Profiler Stackdriver Transparent SLIs

Stackdriver Trace

iOS/Android GCP manager app Browser-based terminal/CLI Live production debugging App error reporting Centralized logging Infrastructure and application monitoring CPU and heap profiling Monitor GCP services

App performance insights

DEVELOPER TOOLS

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

MIGRATION TO GCP

Cloud Data Transfer Google Transfer Appliance Cloud Storage Transfer Service BigQuery Data Transfer Service 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 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 Monetize APIs **API** Monetization 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 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 Interactive street view images Street View Service

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 Provision and manage classrooms Classroom API Docs API Create and edit documents Drive API Read and write files Gmail API **Enhance Gmail** Sheets API Read and write spreadsheets Slides API Create and edit presentations Drive Picker Drive file selection widget Cloud Search Unified search for enterprise Admin SDK Manage G Suite resources Interactive email using schema.org Email Markup Storefront for integrated applications G Suite Marketplace Other G Suite APIs/SDKs Contacts, Google+, Tasks, Vault...

MOBILE (FIREBASE)

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

GCP FOUNDATIONAL OPEN SOURCE PROJECTS

Apache Beam Batch/streaming data processing RPC framework gVisor Secure container runtime Istio Connect and secure services Knative Serverless framework for Kubernetes Kubeflow ML Tool kit for Kubernetes Management of containerized applications Kubernetes

OpenCensus Cloud native observability framework TensorFlow 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

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 Regions and Network Map