

Google Cloud

DEVELOPER'S CHEAT SHEET

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Created by the Google Developer Relations Team Maintained at https://4words.dev

Feedback? 🔰 @gregsramblings @pvergadia

COMPUTE

Cloud Functions App Engine Cloud Run

Kubernetes Engine (GKE) Compute Engine Bare Metal Solution Preemptible VMs Shielded VMs Sole-tenant Nodes

STORAGE

VMware Engine

Cloud Filestore Cloud Storage

Persistent Disk Local SSD

DATABASE

Cloud Bigtable Cloud Firestore Cloud Memorystore Cloud Spanner Cloud SQL

Database Migration Service DB Insights

Petabyte-scale, low-latency, non-relational Serverless NoSQL document DB Managed Redis and Memcached Horizontally scalable relational DB Managed MySQL,PostgreSQL,SQL Server Migrate to Cloud SQL

Multi-class multi-region object storage

Event-driven serverless functions

Managed Kubernetes/containers

Short-lived compute instances

Dedicated physical servers

Managed NFS server

SQL Inspector

Block storage for VMs

VM locally attached SSDs

VMware on Compute Engine

Hardware for specialized workloads

Serverless for containerized applications

Managed app platform

VMs, GPUs, TPUs, Disks

Hardened VMs

DATA AND ANALYTICS

BigQuery BigQuery BI Engine BigQuery ML Cloud Composer Cloud Data Fusion Cloud Dataflow 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 Visual data wrangling Managed Spark and Hadoop Global real-time messaging

Metadata management service Data Studio Collaborative data exploration/dashboarding

Looker Enterprise BI and Analytics

HYBRID AND MULTI-CLOUD

Anthos Anthos Clusters Anthos Config Management Anthos Service Mesh Cloud Run for Anthos GCP Marketplace for Anthos Migrate for Anthos Operations Cloud Build Traffic Director

Apigee API Management

Enterprise hybrid/multi-cloud platform Hybrid/on-prem Kubernetes Engine Policy and security automation Managed service mesh (Istio) Servlerless development for Anthos Pre-configured containerized apps Migrate VMs to Kubernetes Engine Monitoring, logging, troubleshooting Continuous integration/delivery platform Service mesh traffic management API management, development, security

AI/ML

Al Platform Data Labeling Data labeling by humans Al Platform Deep Learning VMs Preconfigured VMs for deep learning Al Platform Deep Learning Preconfigured containers for deep learning Containers 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 Direct Peering Dedicated Interconnect Partner Interconnect Cloud Armor Cloud CDN Cloud DNS Cloud Load Balancing Cloud NAT Cloud Router Cloud VPN (HA) Network Service Tiers Network Telemetry Traffic Director Google Cloud Service Mesh Virtual Private Cloud **VPC Service Controls** Network Intelligence Center

Peer through a carrier Peer with GCP Dedicated private network connection Connect on-prem network to VPC DDoS protection and WAF Content delivery network Programmable DNS serving Multi-region load distribution/balancing Network address translation service VPC/on-prem network route exchange (BGP) VPN (Virtual private network connection) Price vs performance tiering

Visual search for products

Network telemetry service Service mesh traffic management Service-aware network management Software defined networking Security perimeters for API-based services

Network monitoring and topology

GAMING

Google Cloud Game Servers Orchestrate Agones clusters

INTERNET OF THINGS (IOT)

Cloud IoT Core Manage devices, ingest data

IDENTITY AND SECURITY

Access Transparency Assured Workloads Binary Authorization Certificate Authority Service Cloud Asset Inventory Cloud Audit Logs Cloud DLP Cloud HSM Cloud EKM Cloud IAM Cloud Identity Cloud Identity-Aware Proxy Cloud KMS

Cloud Resource Manager

Cloud Security Scanner

Security Command Center

Audit cloud provider access Workload compliance controls Kubernetes deploy-time security Managed private CAs All assets, one place Audit trails for GCP Classify and redact sensitive data Hardware security module service External keys you control Resource access control Manage users, devices & apps Identity-based app access Hosted key management service Cloud project metadata management Security management & data risk platform App engine security scanner

IDENTITY AND SECURITY (CONT.)

Confidential Computing Context-aware Access **Event Threat Detection** Managed Service for Microsoft Active Directory Secret Manager Security Key Enforcement

Shielded VMs Titan Security Key **VPC Service Controls**

MANAGEMENT TOOLS

APIs for cloud services

App performance insights

Monitor GCP services

VPC data constraints

Encrypt data in-use

Scans for suspicious activity

Store and manage secrets

Two-step key verification

Hardened VMs

End-user attribute-based access control

Two-factor authentication (2FA) device

Managed Microsoft Active Directory

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 Private Catalog Internal Solutions Catalog Cloud Debugger Live production debugging Error Reporting App error reporting Cloud Logging Centralized logging Cloud Monitoring Infrastructure and application monitoring Cloud Profiler CPU and heap profiling

DEVELOPER TOOLS

Cloud Trace

Transparent SLIs

Cloud Build Continuous integration/delivery platform Cloud Code for IntelliJ IntelliJ GCP tools Cloud Code for VS Code VS Code GCP tools Cloud Code Cloud native IDE extensions Cloud Tools for Eclipse Cloud Tools for Visual Studio Gradle App Engine Plugin Maven App Engine Plugin Cloud SDK Cloud Shell Artifact Registry Cloud Source Repositories Container Registry Container Analysis Eventarc

Eclipse GCP tools Visual Studio GCP tools Gradle App Engine plugin Maven App Engine plugin CLI for GCP Browser-based terminal/CLI Universal package manager Hosted private git repos Private container registry/storage Automated security scanning Event-driven Cloud Run services Managed cron job service Asynchronous task execution HTTP services orchestration

MIGRATION TO GCP

BigQuery Data Transfer Service

Cloud Scheduler

Cloud Workflows

Cloud Tasks

AppSheet

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

Bulk import analytics data Data migration tools/CLI Rentable data transport box Online/on-premises data transfer Migrate VMs to GKE containers Compute Engine migration tools Migrate from Redshift to BigQuery Migrate from Teradata to BigQuery VM migration tools Infrastructure as Code templates Cloud Foundry to Kubernetes

API PLATFORM AND ECOSYSTEMS

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

No-code App creation

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 for Android apps Maps SDK for Android 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 Places API Rest-based Places features Places features for web Places Library, Maps JS API Places SDK for Android Places features for Android Places SDK for iOS Places feature for iOS Roads API Convert coordinates to roads Street View Static API Static street view images Street View Service Street view for JavaScript Time Zone API Convert coordinates to timezone

GOOGLE WORKSPACE

Admin SDK Manage Workspace resources AMP for Email Dynamic interactive email Apps Script Extend and automate everything Calendar API Create and manage calendars Classroom API Provision and manage classrooms Cloud Search Unified search for enterprise Docs API Create and edit documents Drive Activity API Retrieve Google Drive activity Drive API Read and write files Drive Picker Drive file selection widget Email Markup Interactive email using schema.org Workspace Add-ons Extend G Suite apps Storefront for integrated applications Workspace Marketplace Gmail API **Enhance Gmail** Conversational bots in chat Hangouts Chat Bots People API Manage user's Contacts Sheets API Read and write spreadsheets

ADDITIONAL RESOURCES

Slides API

Task API

Vault API

Google Cloud Home Page Google Cloud Blog Google Cloud Platform Podcast Kubernetes Podcast from Google Google Cloud Open Source GCP Medium Publication Apigee Blog Firebase Blog Workspace Developers Blog Workspace GitHub Workspace 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 DORA - Software & Delivery Research

cloud.google.com cloud.google.com/blog gcppodcast.com kubernetespodcast.com 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

Create and edit presentations

Search, read & update Tasks

Manage your organization's eDiscovery

kubernetes.io/blog cloud.google.com/about/locations cloud.google.com/devops