Google Cloud

DEVELOPER'S CHEAT SHEET

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Created by the Google Developer Relations Team
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Feedback? 🐦 @gregsramblings

COMPUTE

App Engine:	Managed app platform
Cloud Functions:	Event-driven serverless functions
Cloud Run:	Serverless for containerized applications
Compute Engine:	VMs, GPUs, TPUs, Disks
Kubernetes Engine (GKE):	Managed Kubernetes/containers
GKE On-Prem:	Run GKE clusters anywhere
Anthos:	Enterprise hybrid/multi-cloud platform

STORAGE

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

BigQuery:	Data warehouse/analytics
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

AI AND MACHINE LEARNING

AI Hub:	Hosted AI component sharing
I Platform:	Managed platform for ML
AI Platform Data Labeling:	Data labeling by humans
AI Platform Deep Learning VMs:	Preconfigured VMs for deep learning
AI Platform Notebooks:	Managed JupyterLab notebook instances
AI Platform Training:	Parallel and distributed training
AI Platform Predictions:	Autoscaled model serving
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 AI Building Blocks:	Hosted AI component repository
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 Translation API:	Language detection and translation
Cloud Video Intelligence API:	Scene-level video annotation
Cloud Vision API:	Image recognition and classification
Cloud TPU:	Hardware acceleration for ML
Dialogflow Enterprise Edition:	Create conversational interfaces
Document Understanding AI:	Analyze, classify, search documents
Recommendations AI:	Create custom recommendations
Vision Product Search:	Visual search for products

NETWORKING

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
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

IOT

Cloud IoT Core:	Device management and 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
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
Event Threat Detection:	Scans for suspicious activity
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:	APIs for cloud services
Cloud Billing:	Billing and cost management tools
Cloud Billing API:	Programmatically manage GCP billing
Cloud Console:	Web-based management console
Cloud Deployment Manager:	Templated infrastructure deployment
Cloud Mobile App:	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:	Infrastructure and application monitoring
Stackdriver Profiler:	CPU and heap profiling
Stackdriver Transparent SLIs:	Monitor GCP services
Stackdriver Trace:	App performance insights

DEVELOPER TOOLS

Cloud SDK:	CLI for GCP
Cloud Build:	Continuous integration/delivery platform
Cloud Code:	Kubernetes application IDE tools
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
Cloud Tools for Eclipse:	Eclipse GCP tools
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:	Data migration tools/CLI
Google Transfer Appliance:	Rentable data transport box
Cloud Storage Transfer Service:	Cloud to cloud transfers
BigQuery Data Transfer Service:	Bulk import analytics data
Migrate from Amazon Redshift:	Migrate from Redshift to BigQuery
Migrate from Teradata:	Migrate from Teradata to BigQuery
Migrate for Anthos:	Migrate VMs to GKE containers
Migrate for Compute Engine:	Compute Engine migration tools
VM Migration:	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 Marketplace:	Partner & open source marketplace

GOOGLE MAPS PLATFORM

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
Time Zone API:	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
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
Email Markup:	Interactive email using schema.org
G Suite Marketplace:	Storefront for integrated applications
Other G Suite APIs/SDKs:	Contacts, Google+, Tasks, Vault…

MOBILE (FIREBASE)

Cloud Firestore:	Document store and sync
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
Firebase Hosting:	Web hosting with CDN/SSL
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
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
OpenCensus:	Cloud native observability framework
TensorFlow:	ML framework

ADDITIONAL RESOURCES

Google Cloud Home Page:	https://cloud.google.com
Google Cloud Blog:	https://cloud.google.com/blog
GCP Medium Publication:	https://medium.com/google-cloud
Apigee Blog:	https://apigee.com/about/blog
Firebase Blog:	https://firebase.googleblog.com
G Suite Developers Blog:	https://gsuite-developers.googleblog.com
Google Cloud Certifications:	https://cloud.google.com/certification
Google Cloud System Status:	https://status.cloud.google.com
Google Cloud Training:	https://cloud.google.com/training
Google Developers Blog:	https://developers.googleblog.com
Google Maps Platform Blog:	https://mapsplatform.googleblog.com
Google Open Source Blog:	https://opensource.googleblog.com
Google Security Blog:	https://security.googleblog.com
Kaggle Home Page:	https://www.kaggle.com
Kubernetes Blog:	https://kubernetes.io/blog
Regions and Network Map:	https://cloud.google.com/about/locations