gcloud Commands

*Manage Google Cloud Platform resources and developer workflow*

### Info

* Syntax:  
  gcloud <global flags> <service/product> <group/area> <cmd> <flags> <parms>
* Alpha & Beta versions: gcloud alpha… and gcloud beta...

### Global Flags

* --help (-h for summary)
* --project <projectID>
* --account <account>
* --filter *(!always avail)*
* --format *(JSON, yaml, csv, etc.)*
  + ... | jq - process output JSON for further processing
* --quiet (-q)

### Config Properties

* set core/account - precludes --account w/in cmd *(!req “core” - set account)*
* set core/project - precludes --project w/in cmd
* set compute/region - precludes --region w/in cmd *(reqs “compute”)*
* set compute/zone - precludes --zone w/in cmd

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### Commands

* New commands
  + [*Policy Bindings - Add*](https://cloud.google.com/sdk/gcloud/reference/projects/add-iam-policy-binding) *(Project)*
  + gcloud projects add-iam-policy-binding PROJECT\_ID --member=MEMBER --role=ROLE [--condition=[KEY=VALUE,…] | --condition-from-file=CONDITION\_FROM\_FILE] [GCLOUD\_WIDE\_FLAG …]
  + [*Policy Bindings - Add*](https://cloud.google.com/sdk/gcloud/reference/beta/run/services/add-iam-policy-binding) *(Service)*
  + gcloud beta run services add-iam-policy-binding SERVICE --member=MEMBER --role=ROLE [--platform=PLATFORM] [--condition=[KEY=VALUE,…] | --condition-from-file=CONDITION\_FROM\_FILE] [--region=REGION | --cluster=CLUSTER --cluster-location=CLUSTER\_LOCATION | --context=CONTEXT --kubeconfig=KUBECONFIG] [GCLOUD\_WIDE\_FLAG …]
  + [*Policy Bindings - Remove*](https://cloud.google.com/sdk/gcloud/reference/projects/remove-iam-policy-binding) (Project)
  + gcloud projects remove-iam-policy-binding PROJECT\_ID --member=MEMBER --role=ROLE [--all | --condition=[KEY=VALUE,…] | --condition-from-file=CONDITION\_FROM\_FILE] [GCLOUD\_WIDE\_FLAG …]
  + [*Policy Bindings - Remove*](https://cloud.google.com/sdk/gcloud/reference/iam/service-accounts/remove-iam-policy-binding) (Service)
  + gcloud iam service-accounts remove-iam-policy-binding SERVICE\_ACCOUNT --member=MEMBER --role=ROLE [--all | --condition=[KEY=VALUE,…] | --condition-from-file=CONDITION\_FROM\_FILE] [GCLOUD\_WIDE\_FLAG …]
  + gcloud compute zones describe <COMPUTE\_ZONE>  
    Lists zone’s available platforms
  + gcloud projects delete *<PROJECT\_ID>* - delete a project
  + gcloud projects undelete *<PROJECT\_ID>* - restore a project
* EONew Commands
* gcloud auth list - display active account
* gcloud projects list - display all projects for the account
* gcloud Config
  + Syntax:
    - gcloud config set <property> <value>
    - gcloud config get-value <property>
    - gcloud config unset <property>
  + gcloud config list - display all set properties w/in a configuration
  + gcloud init
    - gcloud init - initialize | reinitialize gcloud configuration *(interactive)*
      * Set multiple properties
    - gcloud init --console-only - prevent the cmd from launching browser
  + Configurations
    - gcloud --configuration=<non-active\_configuration> config list - display a non-active configuration properties  
      *(Can also use:  
      gcloud config configurations describe <non-active\_config>)*
    - gcloud config configurations list - display all configurations
      * IS\_ACTIVE - designates current configuration
    - gcloud config configurations **create** <configuration\_name> - create new configuration *(auto-activates it)*
    - gcloud config configurations **activate** <configuration> - switch to <configuration>
      * Can override in 1 cmd via --configuration=<configuration>
  + gcloud Config Set
    - gcloud config set account <account> - set account
    - gcloud config get-value project - display active config & project
    - gcloud config set project - change to diff project
    - gcloud config set compute/zone us-west2-b - set zone
    - gcloud config set compute/region us-west2 - set region
* Instance metadata
  + --metadata flag - set/retrieve/remove custom metadata
    - ***Project-level metadata***
    - gcloud compute project-info describe *- (retrieve)*
    - gcloud compute project-info describe --flatten="commonInstanceMetadata[]" *- (retrieve)*
    - gcloud compute project-info add-metadata --metadata foo=bar,baz=bat *- (set)*
    - ***Instance-specific metadata***
    - gcloud compute instances describe example-instance
    - gcloud compute instances **create** example-instance --metadata foo=bar
    - gcloud compute instances add-metadata instance-name --metadata bread=mayo,cheese=cheddar,lettuce=romaine
    - gcloud compute instances remove-metadata instance-name --keys lettuce
* gcloud Billing
  + gcloud beta billing accounts list
  + gcloud beta billing projects link gce-gcs-lab28-2 --billing-account=012D85-674477-531296
* gcloud Compute
  + List/manage instances
    - gcloud compute instances list - list VMs
    - gcloud compute machine-types list - list avail machine types
    - gcloud compute machine-types list --filter="NAME:f1-micro AND ZONE~us" - list \*\*\*\*
    - gcloud compute instances create *<VM\_name>* - create VM
    - gcloud compute instances create --machine-type=f1-micro mylab28 --metadata-from-file startup-script=startup\_script.sh - create VM
    - gcloud compute instances create *<INSTANCE\_NAME>* --source-instance-template *<INSTANCE\_TEMPLATE\_NAME>* - create VM via instance template
    - gcloud compute instances delete <VM\_hostname> - delete VM
  + SSH
    - gcloud compute ssh <VM\_hostname> - ssh to VM by hostname
      * If !existing keys, execs keygen *(prompts for passphrase)*
      * Updates project ssh metadata
      * Propagates pub key to <VM\_hostname>
      * Logs user into <VM\_hostname>
  + Instance Templates
    - gcloud compute instance-templates list - list instance templates
    - gcloud compute instance-templates describe *<INSTANCE\_TEMPLATE\_NAME>*
    - gcloud compute instance-templates create *<INSTANCE\_TEMPLATE\_NAME>* - w/default settings
    - gcloud compute instance-templates create example-template-custom --machine-type n1-standard-4 --image-family debian-9 --image-project debian-cloud --boot-disk-size 250GB - override default settings
    - gcloud compute instance-templates delete *<INSTANCE\_TEMPLATE\_NAME>* - delete instance template
* gcloud Services
  + gcloud services list [**enabled**|available] - displays svcs
  + gcloud services [enable|disable] <svc> - enable/disable svcs
  + gcloud services enable compute.googleapis.com -
* gcloud Topic
  + gcloud topic filters [--filters] - display resource filters supplementary list
    - --filters - resource filters to list
  + gcloud topic formats - display gcloud output formatting options
  + gcloud topic resource-keys - display resource keys