

GLOBAL FLAGS

Some flags are available throughout the gcloud experience, like:

--help

For when in doubt

--project

If using a project other than the current one

--quiet

Disable interactive prompts (and apply default values for inputs)

--verbosity

Can set verbosity levels at [debug](#), [info](#), [warning](#), [error](#), [critical](#), and [none](#)

--version

Display gcloud version information (*only available at the global level*)

--format

Set output format as [config](#), [csv](#), [default](#), [diff](#), [disable](#), [flattened](#), [get](#), [json](#), [list](#), [multi](#), [none](#), [object](#), [table](#), [text](#), [value](#), or [yaml](#).

CLEANING UP RESULTS

Extricate the most from your output with the filter, format, limit, and sort-by flags. Examples:

```
gcloud compute instances list
--filter="zone ~ ^us AND
-machineType:f1-micro"
```

For Compute Engine instances with prefix us and not machine type f1-micro

```
gcloud projects list
--format="table(projectNumber,project
Id,createTime.date(tz=LOCAL))"\
--filter="createTime>=2018-01-15T12:0
0:00" --sort-by=createTime
```

For a list of projects created on or after 15 January 2018, sorted from oldest to newest, presented as a table with project number, project id and creation time columns with dates and times in local timezone

```
gcloud compute instances list
--filter="labels.my-label:*"
--limit=10
```

For a list of ten Compute Engine instances with a label my-label (of any value)

DISCOVERING COMMANDS

The gcloud command-line tool is a tree; non-leaf nodes are command groups and leaf nodes are commands. (Also, tab completion works for commands and resources!)

Most gcloud commands follow the following format:

gcloud + **release level** (*optional*) + **component** + **entity** + **operation** + **positional args** + **flags**

For example:

gcloud + **compute** + **instances** + **create** + **example-instance-1** + **--zone=us-central1-a**

Where:

Release Level refers to the command's release status

- **alpha** or **beta**. GA (General Availability commands require no release level specification)

Component refers to different Google Cloud services

- **compute** for Compute Engine, **app** for App Engine, ect.

Entity refers to the plural form of an element or collection of elements under a component

- **disks**, **firewalls**, **images**, **instances**, **regions**, **zones** for compute

Operation refers to the imperative verb form of the operation to be performed on the entity

- common operations are **describe**, **list**, **create/update**, **delete/clear**, **import**, **export**, **copy**, **remove**, **add**, **reset**, **restart**, **restore**, **run**, and **deploy**

Positional args refer to the required, order-specific arguments needed to execute the command

- **INSTANCE_NAMES** is the required positional argument for gcloud compute instances create

Flags refer to the additional arguments, --flag-name(=value), passed in to the command after positional args

- **--machine-type=MACHINE_TYPE** and **--preemptible** are optional flags for gcloud compute instances create



<https://cloud.google.com/sdk/gcloud/reference/>

GCLOUD COMMAND-LINE TOOL



<https://cloud.google.com/sdk/gcloud/reference/>

GETTING STARTED

gcloud init

Initialize, authorize, and configure gcloud

gcloud version

Display version and installed components

gcloud components install

Install specific components *

gcloud components update

Update Cloud SDK to the latest version *

gcloud config set project

Set a default Cloud Platform project to work on

gcloud info

Display current gcloud environment details

gcloud help

Search gcloud reference documents for specific terms

gcloud feedback

Provide feedback for the Cloud SDK team

gcloud topic

Supplementary help material for non-command topics like accessibility, filtering, and formatting

* For apt-get and yum, see <https://cloud.google.com/sdk/install>

PERSONALIZATION

gcloud config set

Define a property (like compute/zone) for current configuration

gcloud config get-value

Fetch value of a Cloud SDK property

gcloud config list

Display all the properties for the current configuration

gcloud config configurations create

Create a new named configuration

PERSONALIZATION (CONT.)

`gcloud config configurations list`

Display a list of all available configurations

`gcloud config configurations activate`

Switch to an existing named configuration

CREDENTIALS

`gcloud auth login`

Authorize access for gcloud with Google user credentials and set current account as active

`gcloud auth activate-service-account`

Like gcloud auth login but with service account credentials

`gcloud auth list`

List all credentialed accounts

`gcloud auth print-access-token`

Display the current account's access token

`gcloud auth revoke`

Remove access credentials for an account

`gcloud projects describe`

Display metadata for a project (including its ID)

`gcloud projects add-iam-policy-binding`

Add an IAM policy binding to a project

GOOGLE KUBERNETES ENGINE (GKE)

`gcloud auth configure-docker`

Register gcloud as a Docker credential helper

`gcloud container clusters create`

Create a cluster to run GKE containers

`gcloud container clusters list`

List clusters to run GKE containers

`gcloud container clusters get-credentials`

Update kubeconfig to get kubectl to use a GKE cluster

`gcloud container images list-tags`

List tag and digest metadata for a container image

IDENTITY & ACCESS MANAGEMENT (IAM)

`gcloud iam list-grantable-roles`

List IAM grantable roles for a resource

`gcloud iam roles create`

Create a custom role for a project or org

`gcloud iam service-accounts create`

Create a service account for a project

`gcloud iam service-accounts keys list`

List a service account's keys

`gcloud iam service-accounts add-iam-policy-binding`

Add an IAM policy to a service account

`gcloud iam service-accounts set-iam-policy`

Replace existing IAM policy

COMPUTE ENGINE

`gcloud compute zones list`

List Compute Engine zones

`gcloud compute instances describe`

Display a virtual machine (VM) instance's details

`gcloud compute instances list`

List all VM instances in a project

`gcloud compute disks snapshot`

Create snapshot of persistent disks

`gcloud compute snapshots describe`

Display a specified snapshot's details

`gcloud compute snapshots delete`

Delete a snapshot

`gcloud compute ssh`

Connect to a VM instance by using SSH

APP ENGINE

`gcloud app deploy`

Deploy your app's code and configuration to App Engine server

`gcloud app versions list`

List all versions of all services deployed to the App Engine server

`gcloud app browse`

Open the current app in a web browser

`gcloud app create`

Create an App Engine app within your current project

`gcloud app logs read`

Display the latest App Engine app logs

MISCELLANEOUS

`gcloud kms decrypt`

Decrypt ciphertext (to a plaintext file) using a Cloud Key Management Service (KMS) key

`gcloud logging logs list`

List your project's logs

`gcloud sql backups describe`

Display info about a Cloud SQL instance backup

`gcloud sql export sql`

Export data from a Cloud SQL instance to a SQL file

INSTALLING THE CLOUD SDK

Docs and installation instructions:

<https://cloud.google.com/sdk/docs/>

FLAGS & ARGUMENTS

Arguments can be **positional args**, which are set after command name and must respect the order of positional args or **flags**, which are set after positional args where the order of flags doesn't matter.

A flag is either a **name-value pair** (--foo=bar) or **boolean** (--force/no-force). Additionally, flags can either be **required** or **optional**. When optional, the default value is used if the flag isn't defined.

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