

## 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 documentss 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.