

## 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))"\br  
--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:*\r  
--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, etc.

**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`

## GCLLOUD COMMAND-LINE TOOL

### Cheat sheet

<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



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

## 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.

CONTINUE ON BACK ▶ ▶ ▶