gcloud CLI Google Cloud CLI

Account who you are → `auth login` → **Configuration** project, region, zone → `config set` → **Command** gcloud compute ... → `--project` → **Resource** VM, bucket, role

CONCEPTS

Commands read as gcloud <product> <resource> <verb>, e.g. compute instances list. Add --help at any level to explore.

Most commands need a project. Set a default once, or override per call with --project.

AUTH AND ACCOUNTS

gcloud auth login
Sign in via browser

gcloud auth list
Show credentialed accounts

gcloud auth application-default login
Credentials for local code and SDKs

gcloud init
Guided first-time setup

CONFIG AND PROJECTS

gcloud config list
Show active properties

gcloud config set project *<id>*
Set default project

CONFIG AND PROJECTS (cont.)

gcloud config set compute/zone *<zone>*
Set default zone

gcloud config configurations list
List named configurations

gcloud config configurations activate *<name>*
Switch configuration

gcloud projects list
List projects you can see

gcloud services enable *<api>*.**googleapis.com**
Enable an API

COMPUTE INSTANCES

gcloud compute instances list
List VMs

gcloud compute instances create *<vm>*
Create a VM

gcloud compute instances start *<vm>*
Start a VM

gcloud compute instances stop *<vm>*
Stop a VM

COMPUTE INSTANCES (cont.)

gcloud compute instances delete *<vm>*
Delete a VM

SSH AND COPY

gcloud compute ssh *<vm>*
SSH into a VM

gcloud compute ssh *<vm>* **--command="***<cmd>***"**
Run one command remotely

gcloud compute ssh *<vm>* **--tunnel-through-iap**
SSH without a public IP

gcloud compute scp *<file>* *<vm>*:*<path>*
Copy a file to a VM

STORAGE

gcloud storage ls
List buckets

gcloud storage ls gs://*<bucket>*/*<prefix>*
List objects

gcloud storage cp *<src>* *<dst>*
Copy files to, from or between buckets

gcloud storage cp -r *<dir>* **gs://***<bucket>*
Upload a directory

STORAGE (cont.)

gcloud storage mv *<src>* *<dst>*
Move or rename objects

gcloud storage rsync -r *<src>* *<dst>*
Sync a directory with a bucket

gcloud storage buckets create gs://*<bucket>* **--location=***<loc>*
Create a bucket

IAM

gcloud projects get-iam-policy *<project>*
Show who has which role

gcloud projects add-iam-policy-binding *<project>* **--member=***<member>* **--role=***<role>*
Grant a role

FORMAT AND FILTER

--format=json
Output as JSON

--format="value(*<field>***)"**
Print bare values for scripts

--format="table(*<f1>***,** *<f2>***)"**
Choose table columns

FORMAT AND FILTER (cont.)

--filter="*<field>*=*<value>***"**
Keep matching rows

--project=*<id>*
Override the project for one call

HELP AND DISCOVERY

gcloud *<group>* **--help**
List subcommands in a group

RECIPES

Separate work and personal setups

```
gcloud config configurations create work
gcloud config set project <work-project>
gcloud config set account <you@work.com>
gcloud config configurations activate default
```

Script-friendly VM IPs

```
gcloud compute instances list \
  --filter="status=RUNNING" \
  --format="value(name, networkInterfaces[0].accessConfigs[0].natIP)"
```