

GCP Commands

Services: Compute Engine, GKE, App Engine, Cloud Functions, Cloud Run, BQ, Cloud Storage, gsutil + iam, Artifact Registry, Gcloud projects, gcloud sql, gcloud iam

Compute Engine

- gcloud compute instances create
 - creates a new CE instance
- gcloud compute instances list
 - list all instances in the project
- gcloud compute instances describe <instance name>
 - zone=<zone>
 - display detailed info about a particular instance
- gcloud compute instances delete <instance name> --zone=
 - delete one or more CE instances
- gcloud compute instances start/stop <name> --zone=
 - starts/stops a CE instance
- gcloud compute ssh <name> --zone=
 - connect using ssh
- gcloud compute disks create <disk name>
 - create new persistent disk
- gcloud compute instances attach-disk <vm name>
 - disk <disk name>
- gcloud compute images list
 - list available images for instance creation (can be used in GKE)
- gcloud compute firewall-rules create
 - Create new Firewall rule
 - gcloud compute firewall-rules create allow-http
 - allow tcp:80

Google Kubernetes Engine (GKE)

- gcloud container clusters create <cluster name>
--zone <zone> --num-nodes 3
- gcloud container node-pools create <np name> --cluster <cluster>
- create a node pool within a cluster
- gcloud container clusters get-credentials <cluster name>
--zone <zone name>
- configures kubectl to use a specific GKE cluster
- gcloud container clusters list
- list all GKE clusters in project
- kubectl create -f deployment.yaml
- create a resource from a file
- kubectl apply -f deployment.yaml
- applies changes to resources from a file
- kubectl get pods/services/deployments
- display information about resources
- kubectl describe pod <pod name>
- show detailed pod information
- kubectl logs <pod name>
- print container logs for a pod
- kubectl scale deployment <deployment name> --replicas
- scale the number of replicas in a deployment
- kubectl rollout status/undo deployment <dep name>
- manages resource rollout
- kubectl port-forward pod/<pod name> 8080:80
- forwards the local port to a pod so the resource is available in the local network

App Engine

- `gcloud app deploy <app.yaml>`
 - deploy app to app engine
- `gcloud app browse` (use `--version` to see a specific version)
 - opens the deployed app in browser
- `gcloud app logs read`
 - read application logs
- `gcloud app services list`
 - list all application services
- `gcloud app describe`
 - display info about the application
- `gcloud app create --region=<region>`
 - create new AE application
- `gcloud app deploy --version=<version name>`
 - deploy a specific version
- `gcloud app instances list`
- `gcloud app deploy --no-promote`
 - deploy new version without routing traffic to it
- `gcloud app deploy --stop-previous-version`
 - stops previous version after deploying the new one

Cloud Functions

<function name>

- gcloud functions deploy hello-world --runtime <runtime>
--trigger-http
- deploys new or updates function
- gcloud functions describe <function name>
- gcloud functions delete <function name>
- gcloud functions call <name> --data '{"name": "John"}'
- invoke for testing
- gcloud functions add-iam-policy-binding <fname>
--member=user:<email> --role=roles/cloudfunctions.
invoker
- add a IAM binding to a function
- gcloud functions get-iam-policy <fname>
- display IAM bindings for a function

Cloud Storage

- `gsutil ls`
 - list buckets or objects
- `gsutil cp file.txt gs://my-bucket/`
 - copy file to/from storage
- `gsutil mv gs://my-bucket/old.txt gs://my-bucket/new.txt`
 - move or rename objects
- `gsutil rm gs://my-bucket/File.txt`
 - delete objects or buckets
- `gsutil mb`
 - make a new bucket
- `gsutil rb`
 - remove an empty bucket
- `gsutil iam get/set`
 - get or set iam policies
- `gsutil iam ch allUsers:objectViewer gs://my-bucket`
 - update to the cloud IAM policy on a bucket or obj
- `gcloud storage buckets create/delete gs://bucketname?`
 - create or delete a bucket
- `gcloud storage buckets list`
- `gcloud storage objects list <bucket path>`
 - list objects in a bucket
- `gcloud storage objects create gs://bucket/File.txt`
 - source = local-file.txt
 - upload objects to a bucket
- `gcloud storage buckets describe <bucket path>`
 - display bucket metadata
- `gcloud storage buckets set-iam-policy <bucket path> policy.yaml`
 - set IAM on a bucket from yaml file
- `gsutil rewrite -s Coldline gs://bucketname/object`
 - changes the storage class
- `gcloud storage objects update gs://bucket --storage-class=Nearline`

Projects

- gcloud projects list
 - list all accessible projects
- gcloud projects describe <project id>
- gcloud projects create/delete <project-id>
- gcloud projects add-iam-policy-binding <project-id>
 - member = user:<email> --role = roles/<role name>

BigQuery

- bq query '<Sql statement here>'
 - run a sql query
- bq mk myproject:newdataset
 - make a dataset
- bq load dataset.table data.csv schema.json
 - load data into a table
- bq extract dataset.table gs://bucket/file.csv
 - export data from table
- bq show dataset.table
 - display info about a dataset or table
- bq query --dry-run 'query'
 - estimate a queries cost without running it
- bq query --batch 'query'
 - run a query in batch mode