



## Google Cloud – Google cloud shell

O shell é o terminal do google cloud que te permite executar ações no **GCP** via linha de comando. Por exemplo, podemos ver nossas zonas e regiões padrões com alguns comandos (nesse caso nenhuma região ou zona padrão estão definidas):

```
student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241)$ gcloud config get-value compute/region
Your active configuration is: [cloudshell-28265]
(unset)
student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241)$ gcloud config get-value compute/zone
Your active configuration is: [cloudshell-28265]
(unset)
student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241)$
```

Para identificar a zona e região de um projeto, basta executar um comando com o **ID do projeto** (esse *descreve na verdade traz uma série de informações sobre o projeto*):

```
student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241)$ gcloud compute project-info describe --project qwiklabs-gcp-00-f0b79618a241
commonInstanceMetadata:
  fingerprint: 5jszhXjBfFU=
  items:
    - key: google-compute-default-zone
      value: us-central1-a
    - key: google-compute-default-region
      value: us-central1
    - key: ssh-keys
      value: student-01-6c701f00b8a7:ssh-rsa AAAAB3NzaClyc2EAAAADAQABAAQDYOBrYq6RE5vW+cxHftN+Cb0+2qjiANmAKCDw29dMd4+mdbjjH5Q8zcLujYa05/DjSj9F903lu
pMrQbU5r0fZzoxUv4k3ZHCT/QiMLZ218ALKD0eOIPiH2x2+GKDGqvcqtMlsmgJHLR860iKDKSO2G9f3twTpPk3gtLbtKJk7OH1fFNWgboOCL5K3qXQta7mmpUy9yo6wgKLRkIW7H2gp5HDD/YA
p9LklzfmutunHwkj2VDb5yJXhddOecTk3BcYKa5wpTztzHTVinMNEHrSK4udibWcJNz8v/+o7SNB2yjX4zq4y52FIMWxyQR
      student-01-6c701f00b8a7@qwiklabs.net
    - key: enable-oslogin
      value: 'true'
  kind: compute#metadata
creationTimestamp: '2022-05-01T10:51:35.951-07:00'
defaultNetworkTier: PREMIUM
defaultServiceAccount: 614670566899-compute@developer.gserviceaccount.com
id: '607935912197977672'
kind: compute#project
name: qwiklabs-gcp-00-f0b79618a241
```

## Google cloud shell - variáveis de ambiente

Da pra **economizar tempo de configuração usando variáveis de ambiente**, por exemplo, eu não quero usar o id do projeto como aquele código todo, quero armazenar esse id numa **variável mais amigável**, então eu faria um **export** com o nome da variável que eu quero e o valor dela:

```
xpnpProjectStatus: UNSPECIFIED_XPN_PROJECT_STATUS
student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241)$ export PROJECT_ID=qwiklabs-gcp-00-f0b79618a241
student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241)$
student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241)$ export ZONE=us-central1-a
student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241)$

student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241)$ echo $ZONE
us-central1-a
student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241)$ echo $PROJECT_ID
qwiklabs-gcp-00-f0b79618a241
```

Então na criação de uma máquina virtual pela linha de comando eu poderia usar as próprias **variáveis de ambiente** no comando:

```
student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241)$ gcloud compute instances create gcelab2 --machine-type n1-standard-2 --zone $ZONE
Created [https://www.googleapis.com/compute/v1/projects/qwiklabs-gcp-00-f0b79618a241/zones/us-central1-a/instances/gcelab2].
NAME: gcelab2
ZONE: us-central1-a
MACHINE_TYPE: n1-standard-2
PREEMPTIBLE:
INTERNAL_IP: 10.128.0.2
EXTERNAL_IP: 34.133.116.65
STATUS: RUNNING
student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241)$
```

Da pra **obter ajuda usando –help** em cada comando específico:

```
student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241)$ gcloud help config
```

## Google cloud shell – Modo interativo

O shell possui um modo “interativo” onde ele te apresenta sugestões e faz auto completes com “tab”, de certa forma é um **facilitador para se utilizar o shell baseado no contexto**:

```
student_01_6c701f00b8a7@cloudshell:~ (qwiklabs-gcp-00-f0b79618a241) $ gcloud beta interactive
Welcome to the gcloud interactive shell environment.

Tips:
  o start by typing commands to get auto-suggestions and inline help
  o use tab, up-arrow, or down-arrow to navigate completion dropdowns
  o use space or / to accept the highlighted dropdown item
  o run gcloud <alpha|beta> interactive --help for more info

Run $ gcloud feedback to report bugs or request new features.

$
```

F2:help:ON F7:context F8:web-help F9:quit qwiklabs-gcp-00-f0b79618a241 student-01-6c701f00b8a7@qwiklabs.net

Olha a ajuda que ele me dá pra descrever uma máquina virtual que já existe no ambiente *(ele já encontrou e ainda dá dicas)*:

```
$ gcloud compute instances describe gcelab2
```

**INSTANCE\_NAME**  
Name of the instance to describe. For details on valid instance names, refer to the criteria documented under the field 'name' at: <https://cloud.google.com/compute/docs/reference/rest/v1/instances>

## Google cloud shell – Conexão SSH

O shell também facilita a conexão via SSH com as instâncias de máquina virtual, bastando apenas um comando:

```
$ gcloud compute ssh gcelab2 --zone $ZONE
WARNING: The private SSH key file for gcloud does not exist.
WARNING: The public SSH key file for gcloud does not exist.
WARNING: You do not have an SSH key for gcloud.
WARNING: SSH keygen will be executed to generate a key.
This tool needs to create the directory [/home/student_01_6c701f00b8a7/.ssh] before being able to generate SSH keys.

Do you want to continue (Y/n)? y
```