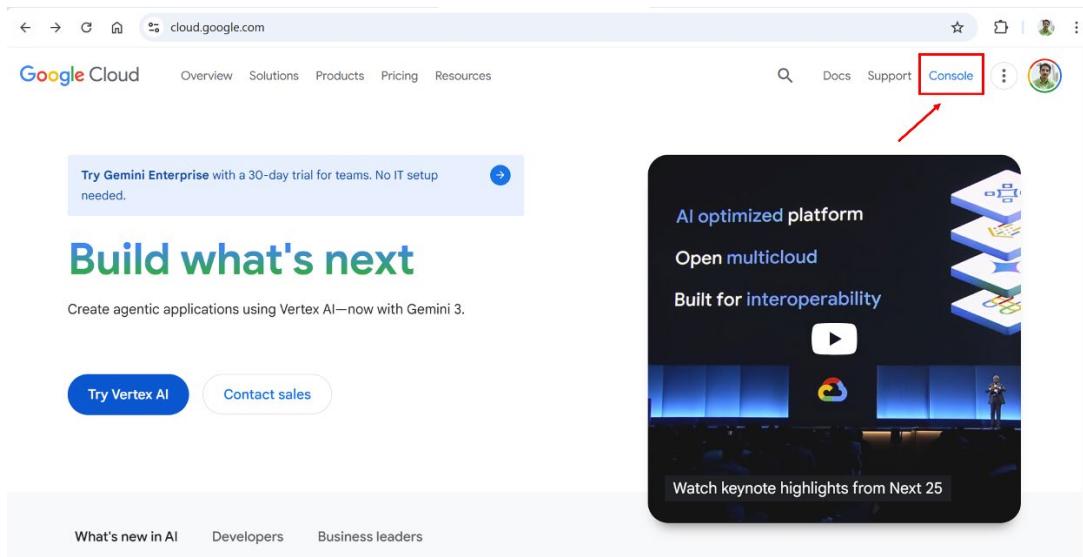


CLOUD COMPUTING LABORATORY

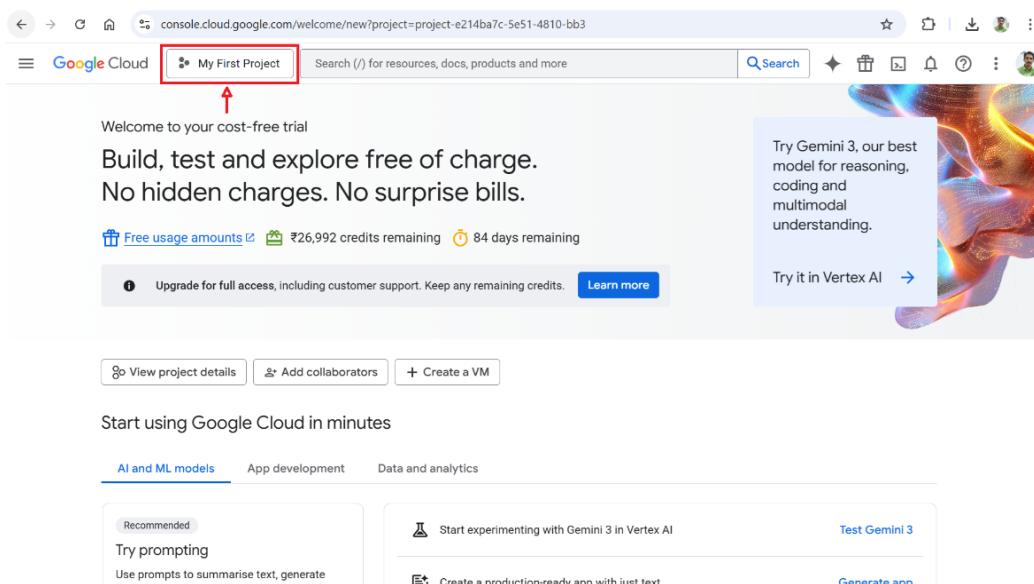
Experiment – 2:

Getting Started with Cloud Shell and gcloud: Discover the use of gcloud commands to manage Google Cloud resources from Cloud Shell.

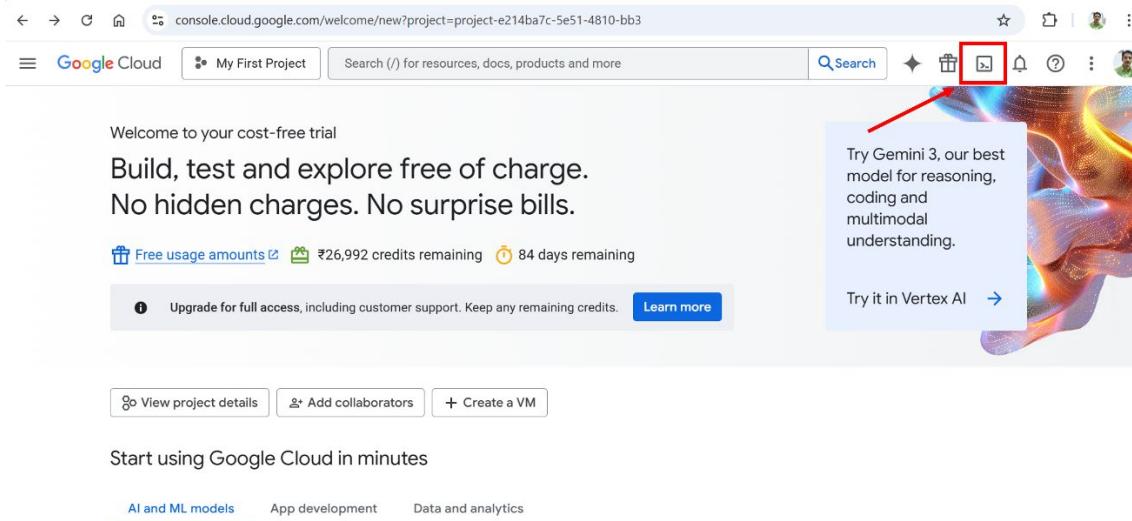
Step 1: From the Google Cloud homepage, click on **Console** to open the Google Cloud Console.



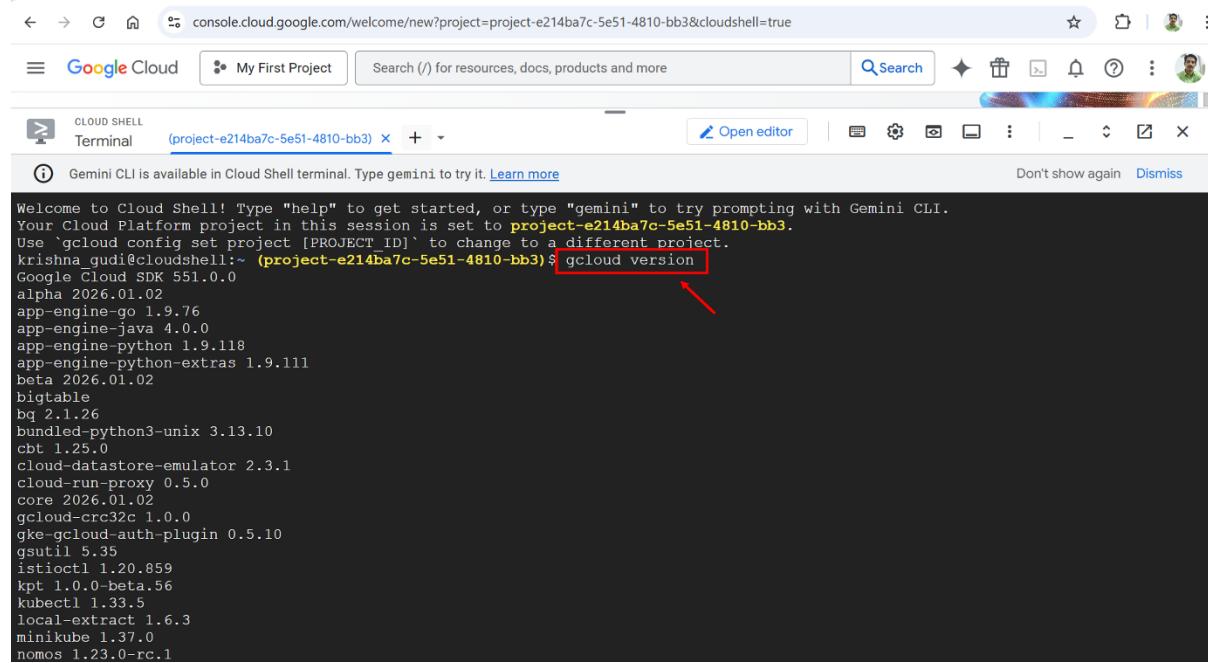
Step 2: In the Google Cloud Console, verify the active project by checking the **project name** shown at the top.



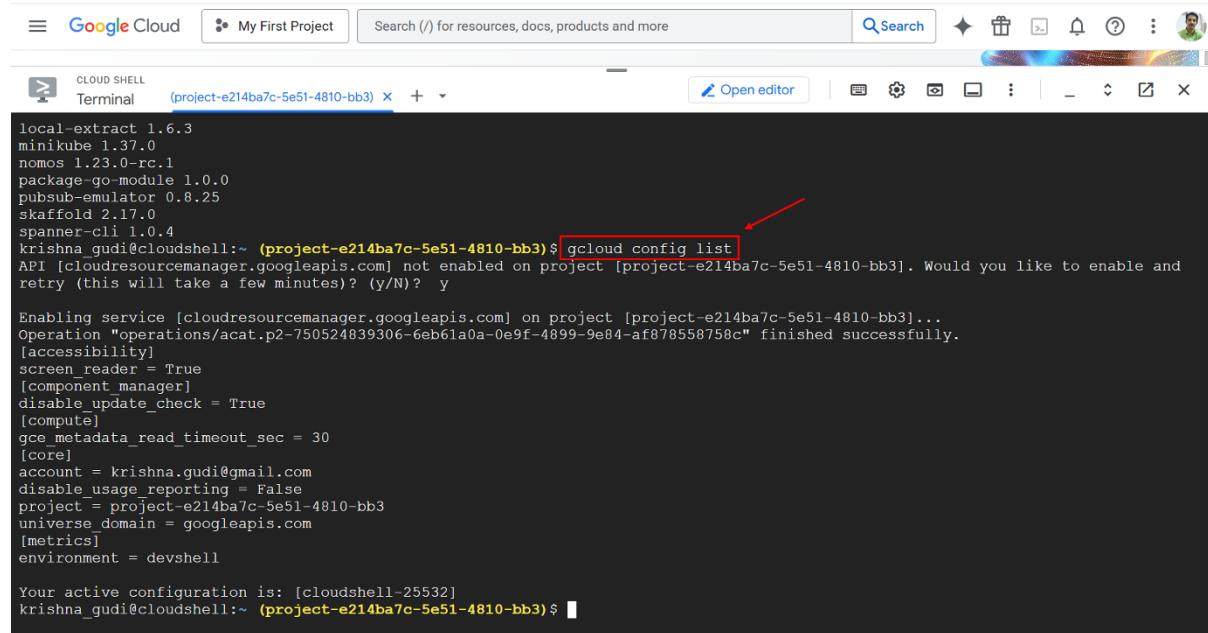
Step 3: Click on the **Cloud Shell icon** on the top-right to launch the Cloud Shell terminal.



Step 4: Once Cloud Shell opens, execute the command **gcloud version** to verify the installed Google Cloud SDK.



Step 5: Run the command **gcloud config list** to view the current project and account configuration.



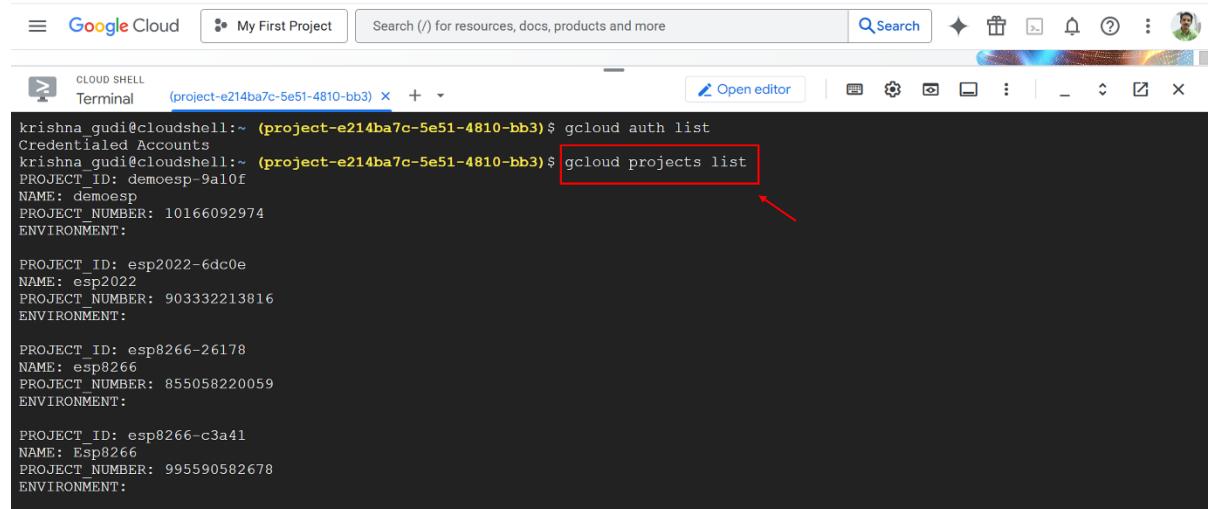
```

Google Cloud My First Project Search (/) for resources, docs, products and more
CLOUD SHELL Terminal (project-e214ba7c-5e51-4810-bb3) + Open editor
local-extract 1.6.3
minikube 1.37.0
nomos 1.23.0-rc.1
package-go-module 1.0.0
pubsub-emulator 0.8.25
skaffold 2.17.0
spanner-cli 1.0.4
krishna_gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3)$ gcloud config list
API [cloudresourcemanager.googleapis.com] not enabled on project [project-e214ba7c-5e51-4810-bb3]. Would you like to enable and
retry (this will take a few minutes)? (Y/N)? y
Enabling service [cloudresourcemanager.googleapis.com] on project [project-e214ba7c-5e51-4810-bb3]...
Operation "operations/acat.p2-750524039306-6eb61a0a-0e9f-4899-9e84-af878558758c" finished successfully.
[accessibility]
screen_reader = True
[component_manager]
disable_update_check = True
[compute]
gce_metadata_read_timeout_sec = 30
[core]
account = krishna.gudi@gmail.com
disable_usage_reporting = False
project = project-e214ba7c-5e51-4810-bb3
universe_domain = googleapis.com
[metrics]
environment = devshell

Your active configuration is: [cloudshell-25532]
krishna_gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3)$

```

Step 6: Execute **gcloud auth list** and **gcloud projects list** to check the authenticated account and available projects.



```

Google Cloud My First Project Search (/) for resources, docs, products and more
CLOUD SHELL Terminal (project-e214ba7c-5e51-4810-bb3) + Open editor
krishna_gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3)$ gcloud auth list
Credentialed Accounts
krishna_gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3)$ gcloud projects list
PROJECT_ID: demoesp_9a10f
NAME: demoesp
PROJECT_NUMBER: 10166092974
ENVIRONMENT:

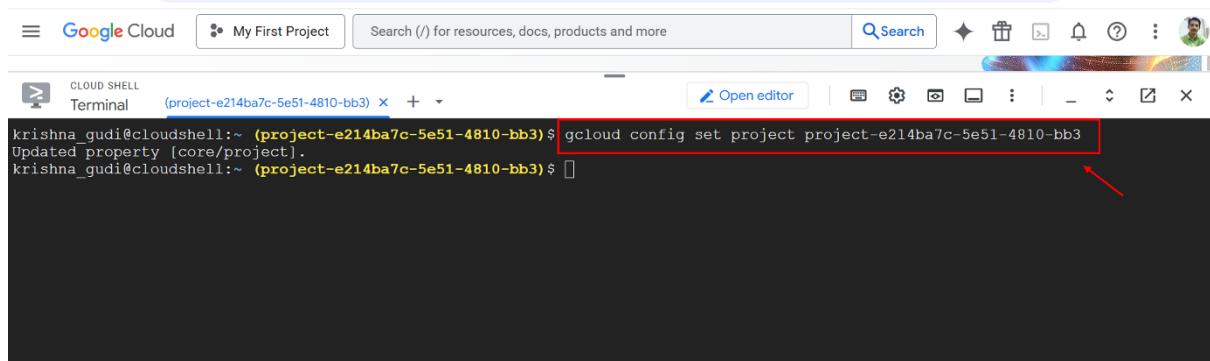
PROJECT_ID: esp2022-6dc0e
NAME: esp2022
PROJECT_NUMBER: 903332213816
ENVIRONMENT:

PROJECT_ID: esp8266-26178
NAME: esp8266
PROJECT_NUMBER: 855058220059
ENVIRONMENT:

PROJECT_ID: esp8266-c3a41
NAME: Esp8266
PROJECT_NUMBER: 995590582678
ENVIRONMENT:

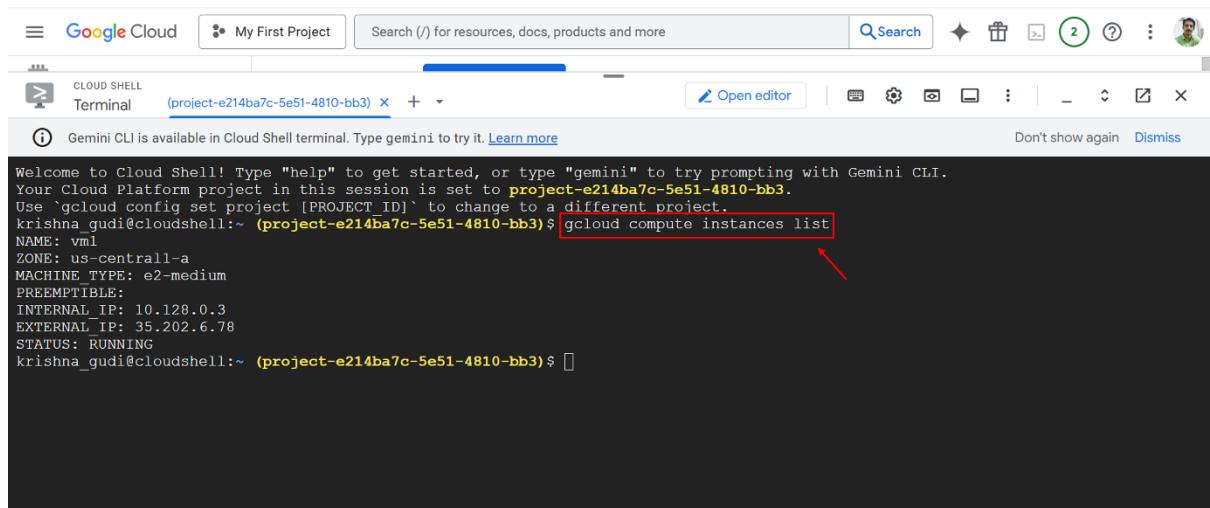
```

Step 7: Set the required project using gcloud config set project <PROJECT_ID>.



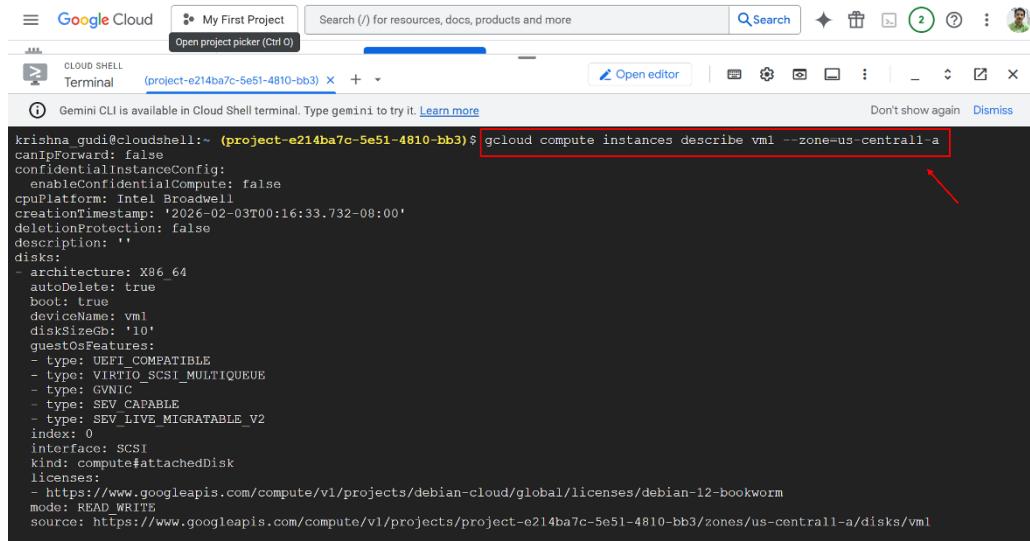
```
krishna_gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3)$ gcloud config set project project-e214ba7c-5e51-4810-bb3
Updated property [core/project].
krishna_gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3)$
```

Step 8: Execute gcloud compute instances list to view the list of virtual machine instances in the project.



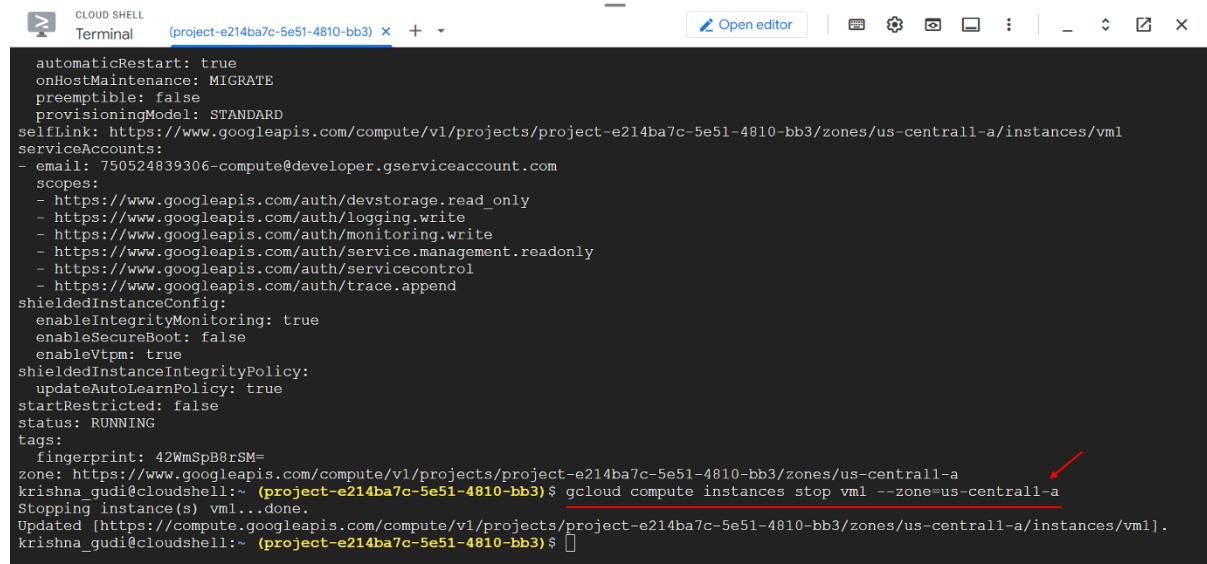
```
Welcome to Cloud Shell! Type "help" to get started, or type "gemini" to try prompting with Gemini CLI.
Your Cloud Platform project in this session is set to project-e214ba7c-5e51-4810-bb3.
Use `gcloud config set project [PROJECT_ID]` to change to a different project.
Gemini CLI is available in Cloud Shell terminal. Type gemini to try it. Learn more
Don't show again Dismiss
krishna_gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3)$ gcloud compute instances list
NAME: vml
ZONE: us-central1-a
MACHINE_TYPE: e2-medium
PREEMPTIBLE:
INTERNAL IP: 10.128.0.3
EXTERNAL IP: 35.202.6.78
STATUS: RUNNING
krishna_gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3)$
```

Step 9: Run `gcloud compute instances describe vml --zone=<ZONE>` to view detailed information of the VM instance.



```
krishna.gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3)$ gcloud compute instances describe vml --zone=us-central1-a
canIpForward: false
confidentialInstanceConfig:
  enableConfidentialCompute: false
cpuPlatform: Intel Broadwell
creationTimestamp: '2026-02-03T00:16:33.732-08:00'
deletionProtection: false
description: ''
disks:
- architecture: X86_64
  autoDelete: true
  boot: true
  deviceName: vml
  diskSizeGb: '10'
  guestOsFeatures:
    - type: UEFI_COMPATIBLE
    - type: VIRTIO_SCSI_MULTIQUEUE
    - type: GVNIC
    - type: SEV_CAPABLE
    - type: SEV_LIVE_MIGRATABLE_V2
  index: 0
  interface: SCSI
  kind: compute#attachedDisk
  licenses:
    - https://www.googleapis.com/compute/v1/projects/debian-cloud/global/licenses/debian-12-bookworm
  mode: READ_WRITE
  source: https://www.googleapis.com/compute/v1/projects/project-e214ba7c-5e51-4810-bb3/zones/us-central1-a/disks/vml
```

Step 10: Stop the virtual machine using `gcloud compute instances stop vml --zone=<ZONE>` after completing the experiment.



```
automaticRestart: true
onHostMaintenance: MIGRATE
preemptible: false
provisioningModel: STANDARD
selfLink: https://www.googleapis.com/compute/v1/projects/project-e214ba7c-5e51-4810-bb3/zones/us-central1-a/instances/vml
serviceAccounts:
- email: 750524839306-compute@developer.gserviceaccount.com
  scopes:
    - https://www.googleapis.com/auth/devstorage.read_only
    - https://www.googleapis.com/auth/logging.write
    - https://www.googleapis.com/auth/monitoring.write
    - https://www.googleapis.com/auth/service.management.readonly
    - https://www.googleapis.com/auth/servicecontrol
    - https://www.googleapis.com/auth/trace.append
shieldedInstanceStateConfig:
  enableIntegrityMonitoring: true
  enableSecureBoot: false
  enableVtpm: true
shieldedInstanceStatePolicy:
  updateAutoLearnPolicy: true
startRestricted: false
status: RUNNING
tags:
  fingerprint: 42WmSpB8rSM=
zone: https://www.googleapis.com/compute/v1/projects/project-e214ba7c-5e51-4810-bb3/zones/us-central1-a
krishna.gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3)$ gcloud compute instances stop vml --zone=us-central1-a
Stopping instance(s) vml...done.
Updated [https://compute.googleapis.com/compute/v1/projects/project-e214ba7c-5e51-4810-bb3/zones/us-central1-a/instances/vml].
krishna.gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3)$
```