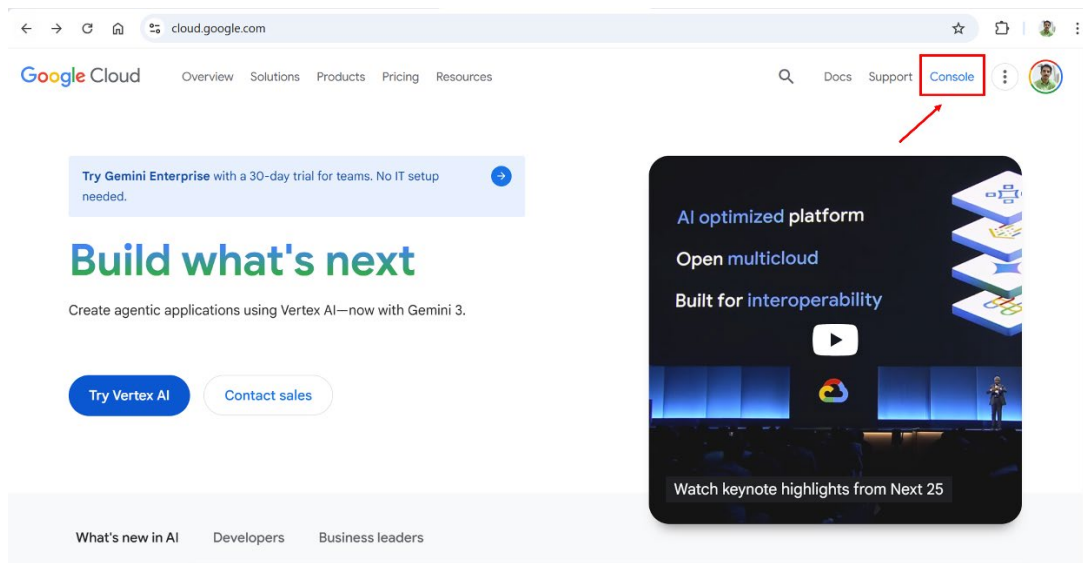


CLOUD COMPUTING LABORATORY

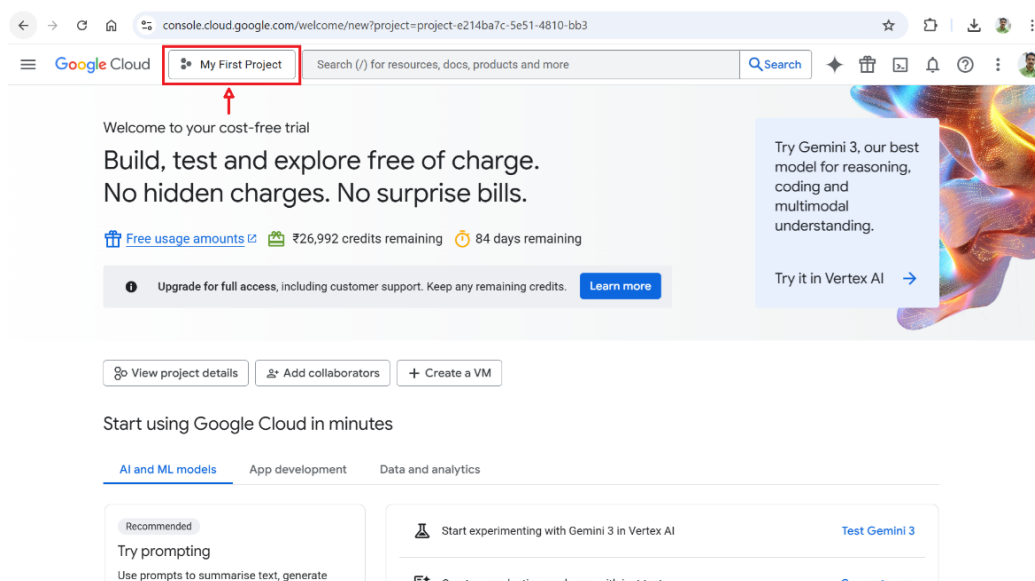
Experiment – 2:

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

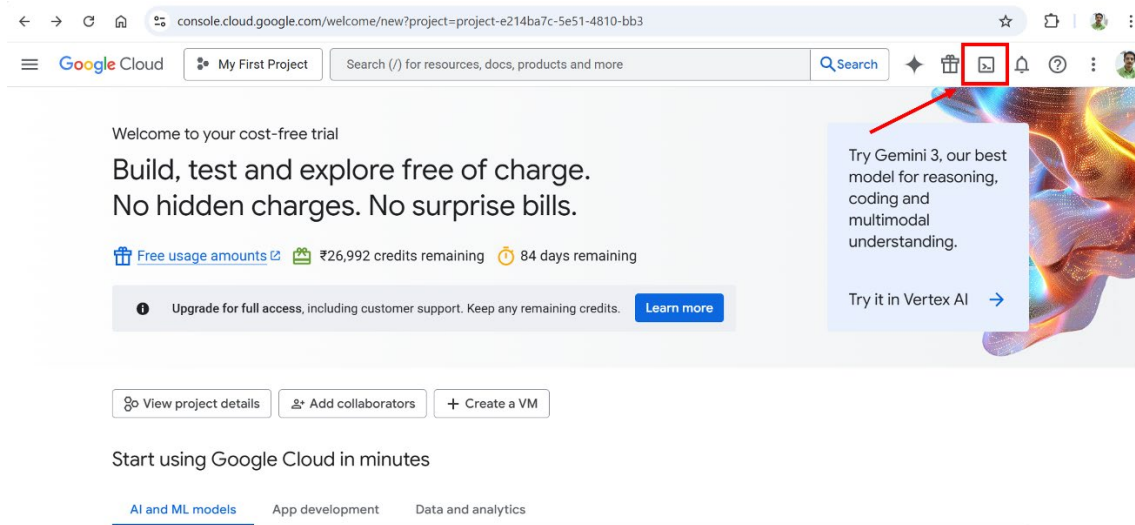
Step 1: From the Google Cloud homepage, click on **Console** to open the Google Cloud Console.



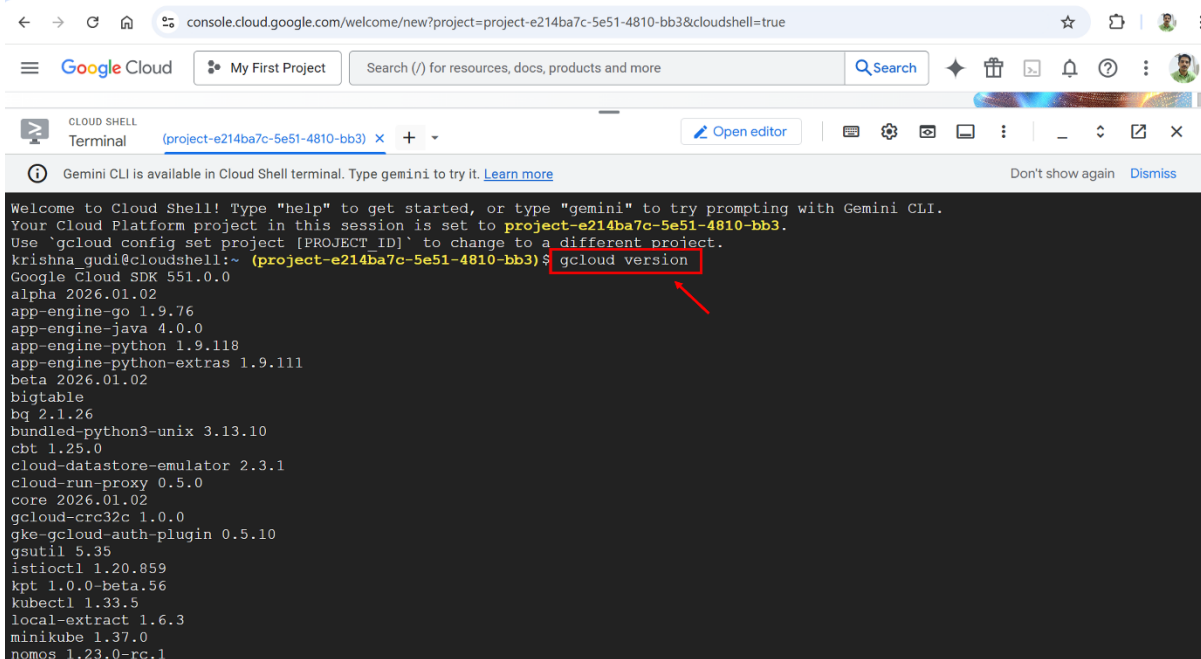
Step 2: In the Google Cloud Console, verify the active project by checking the project name shown at the top.



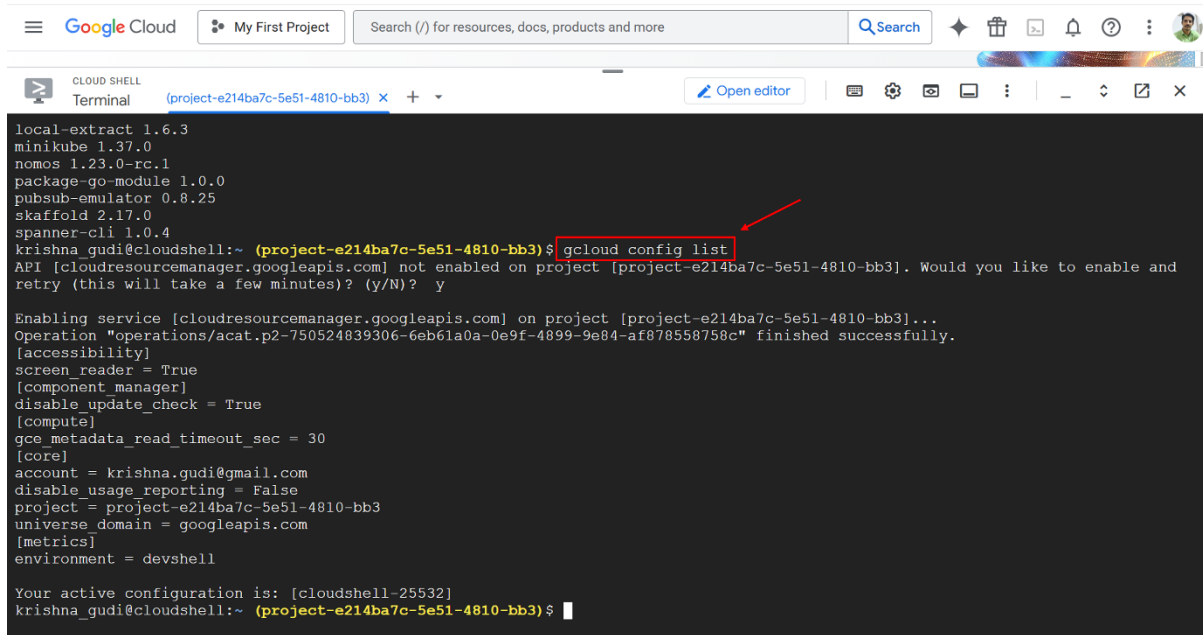
Step 3: Click on the **Cloud Shell** icon on the top-right to launch the Cloud Shell terminal.



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.

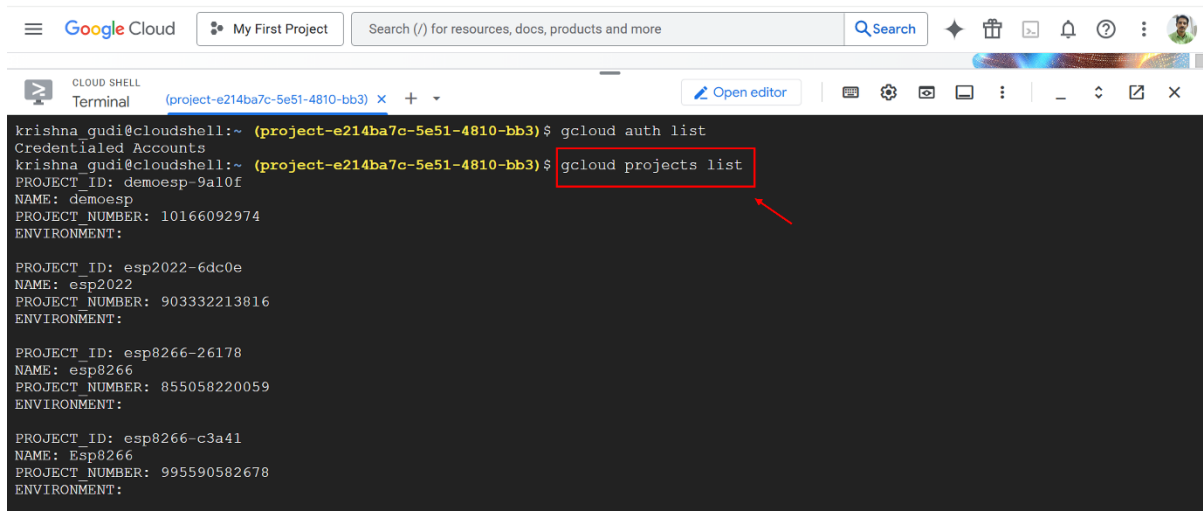


```
local-extract 1.6.3
minikube 1.37.0
nomos 1.23.0-rc.1
package-go-module 1.0.0
pubsub-emulator 0.8.25
skaffold 2.17.0
spanner-cli 1.0.4
krishna_gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3) $ gcloud config list
API [cloudresourcemanager.googleapis.com] not enabled on project [project-e214ba7c-5e51-4810-bb3]. 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.p2-750524839306-6eb61a0a-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.



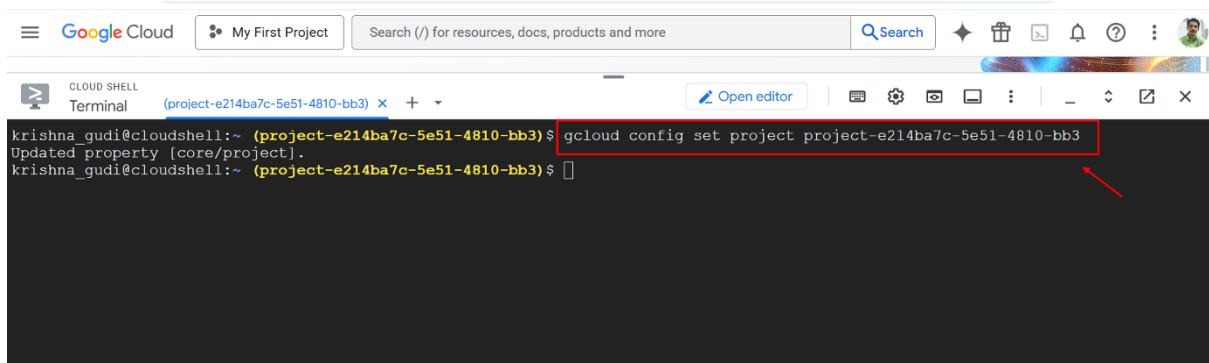
```
krishna_gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3) $ gcloud auth list
Credentialed Accounts
krishna_gudi@cloudshell:~ (project-e214ba7c-5e51-4810-bb3) $ gcloud projects list
PROJECT_ID: demoesp-9a10f
NAME: demoesp
PROJECT_NUMBER: 10166092974
ENVIRONMENT:

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:
```

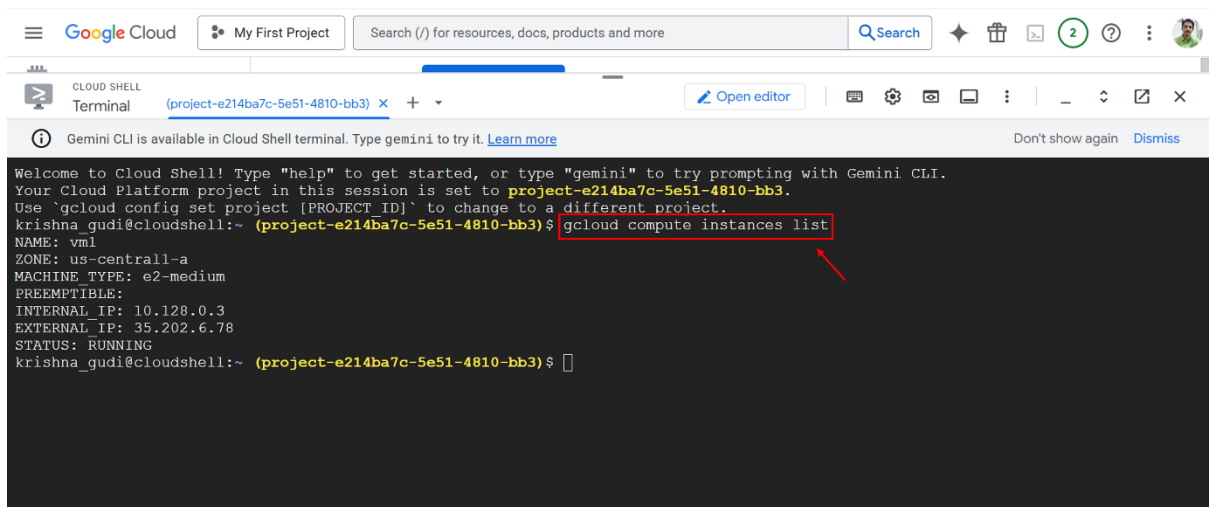
Step 7: Set the required project using `gcloud config set project <PROJECT_ID>`.



The screenshot shows the Google Cloud Shell interface. The terminal window is titled 'Terminal' and shows the command `gcloud config set project project-e214ba7c-5e51-4810-bb3` being executed. The output indicates that the project has been updated. A red box highlights the command, and a red arrow points to it.

```
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) $
```

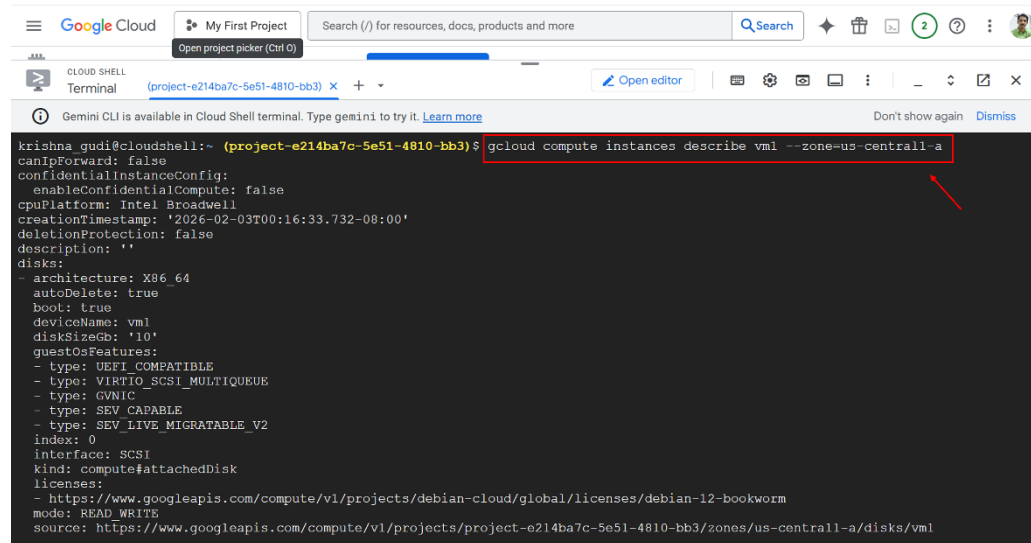
Step 8: Execute `gcloud compute instances list` to view the list of virtual machine instances in the project.



The screenshot shows the Google Cloud Shell interface. The terminal window is titled 'Terminal' and shows the command `gcloud compute instances list` being executed. The output displays the details of a virtual machine instance named 'vml'. A red box highlights the command, and a red arrow points to it.

```
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.
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.

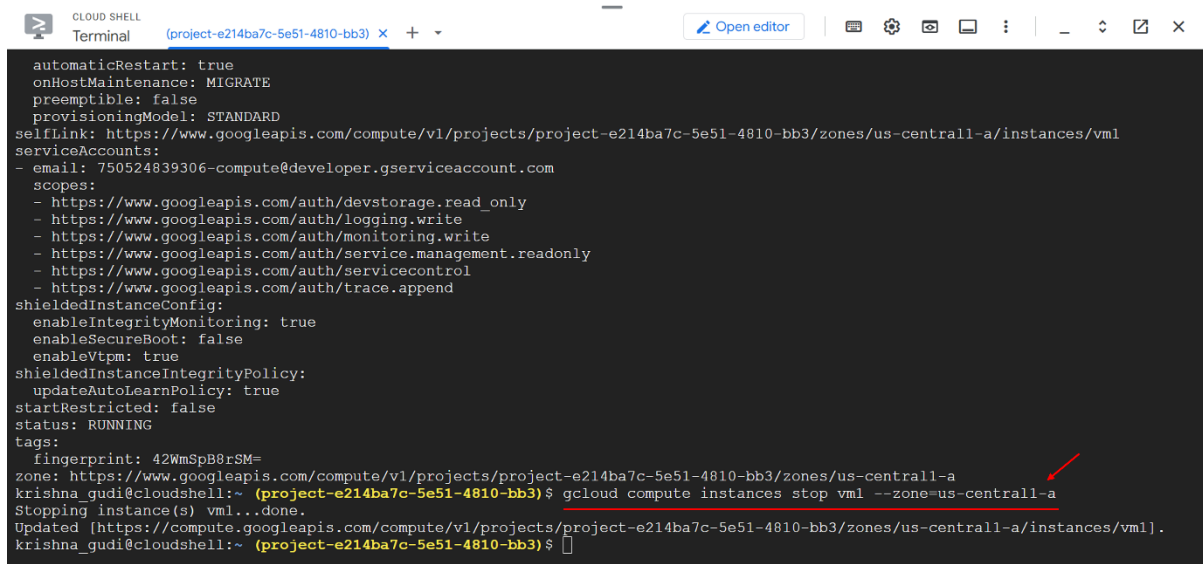


```

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: GVMC
  - 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.



```

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) $

```