

Day 1:

- What is Cloud Computing?
- Importance of cloud computing
- GCE Service (Google Compute Engine)
- Gcloud shell
- Projects in GCP, Billing Account
- VPC
- VPC PEERING

PAAS (PLATFORM AS A SERVICE)

- Container technology (Docker)
- Kubernetes (COE tool)
- GKE/GCE(GOOGLE CONTAINER ENGINE) SERVICE
- Kubectl
- Load Balancer
- SQL (Storage Service)
- IAM (IDENTITY ACCESS MANAGEMENT)
- APP ENGINE(PAAS)

<https://console.cloud.google.com/>

Compute units: ram,cpu etc

Home – My First Project – Google Cloud Platform

console.cloud.google.com/home/dashboard?project=groovy-ward-287313

New Tab Search | Inbox (157) - 2019p... | Inbox (1,144) - vish... | Inbox (252) - 2019p... | Gmail | YouTube | Maps | 29th APRIL - Google... | YAMLint - The YAM... | Untitled document...

Free trial status: \$21,406.50 credit and 91 days remaining - with a full account, you'll get unlimited access to all of Google Cloud Platform.

DISMISS ACTIVATE

Google Cloud Platform My First Project DASHBOARD ACTIVITY RECOMMENDATIONS Notifications FAVORITES

How Google Cloud is helping during COVID-19. Learn more DISMISS

Project info

- Project name: My First Project
- Project ID: groovy-ward-287313
- Project number: 497392490371

ADD PEOPLE TO THIS PROJECT

Go to project settings

API APIs

Requests (requests/sec)

Time	Requests/sec
10 PM	0.019/s
10:15	0.018/s
10:30	0.017/s
10:45	0.016/s

Requests: 0.017/s

Go to APIs overview

Google Cloud Platform status

All services normal

Go to Cloud status dashboard

Monitoring

Set up alerting policies

Create uptime checks

View all dashboards

Type here to search

Windows Start button | Taskbar icons

ENG IN 10:55 PM 8/23/2020 [15]

The screenshot shows the Google Cloud Platform dashboard for the project 'My First Project'. On the left, there's a sidebar with links like Home, Marketplace, Billing, APIs & Services, Support, IAM & Admin, Getting started, Security, and Anthos. Below that is a COMPUTE section with App Engine. The main area has tabs for DASHBOARD, ACTIVITY, and RECOMMENDATIONS. The DASHBOARD tab is active, showing 'Project info' with details like Project name: My First Project, Project ID: groovy-ward-287313, and Project number: 497392490371. It also shows 'API APIs' with a chart of requests per second over time. To the right, there are sections for 'Google Cloud Platform status' (All services normal), 'Monitoring' (with options to set up alerting policies and create uptime checks), and a link to view all dashboards. A search bar at the bottom left and a taskbar with various icons are also visible.

Overview – Billing – Google Cloud Platform

console.cloud.google.com/billing/0182F7-E5BF61-5DE78C

New Tab Search | Inbox (157) - 2019p... | Inbox (1,144) - vish... | Inbox (252) - 2019p... | Gmail | YouTube | Maps | 29th APRIL - Googl... | YAMLint - The YAM... | Untitled document...

Google Cloud Platform

Billing Overview My Billing Account ▾

BILLING ACCOUNT OVERVIEW PAYMENT OVERVIEW

View all health checks

Promotional credits ₹21,406.50 Remaining credits Out of ₹21,406.50

Remaining credits ₹21,406.50 Free Trial

Credit details

Actual cost

Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug \$0

View report

Top projects August 1, 2019 – August 31, 2020

Type here to search

ENG IN 11:02 PM 8/23/2020

This screenshot shows the Google Cloud Platform Billing Overview page. It displays promotional credits of ₹21,406.50 remaining out of ₹21,406.50 total. A chart shows actual cost from August to August. Below the chart, a section titled 'Top projects' covers the period from August 1, 2019, to August 31, 2020.

Home – My First Project – Google Cloud Platform

console.cloud.google.com/home/dashboard?project=groovy-ward-287313&pli=1

New Tab Search | Inbox (157) - 2019p... | Inbox (1,144) - vish... | Inbox (252) - 2019p... | Gmail | YouTube | Maps | 29th APRIL - Googl... | YAMLint - The YAM... | Untitled document...

Google Cloud Platform

VM Instances RECOMMENDATIONS CUSTOMIZE

Pins appear here Security

RECOMMENDATIONS

DISMISS

VM Instances

Instance groups

Instance templates

Sole-tenant nodes

Machine images

Disk

Snapshots

Images

TPUs

Migrate for Compute Engine

Committed use discounts

Metadata

Health checks

Zones

Network endpoint groups

Operations

RPC APIs Requests (requests/sec)

10:30 11 PM

Requests: 0.017/s

Google Cloud Platform status All services normal

Go to Cloud status dashboard

Monitoring Set up alerting policies

Create uptime checks

View all dashboards

Type here to search

ENG IN 11:17 PM 8/23/2020

This screenshot shows the Google Cloud Platform Home Dashboard for the project 'groovy-ward-287313'. It includes sections for VM Instances, RPC APIs (showing requests per second), and Monitoring (with options for alerting and uptime checks). The left sidebar lists various Compute Engine services like App Engine, Compute Engine, and Kubernetes Engine.

The screenshot shows the Google Cloud Platform Marketplace page for the Compute Engine API. At the top, there's a search bar and a navigation bar with 'Google Cloud Platform' and 'My First Project'. Below the header, the title 'Compute Engine API' is displayed with a blue icon. There are two buttons: 'ENABLE' (in blue) and 'TRY THIS API' (in grey). A link 'Click to try this API in API Explorer' is also present. Below these are three tabs: 'OVERVIEW' (which is selected), 'DOCUMENTATION', and 'SUPPORT'. The 'OVERVIEW' section contains a brief description: 'Creates and runs virtual machines on Google Cloud Platform.' To the right, under 'Additional details', it says 'Type: APIs & services', 'Last updated: 12/10/19', and 'Category: Compute, Networking'. The bottom of the screenshot shows a Windows taskbar with various pinned icons.

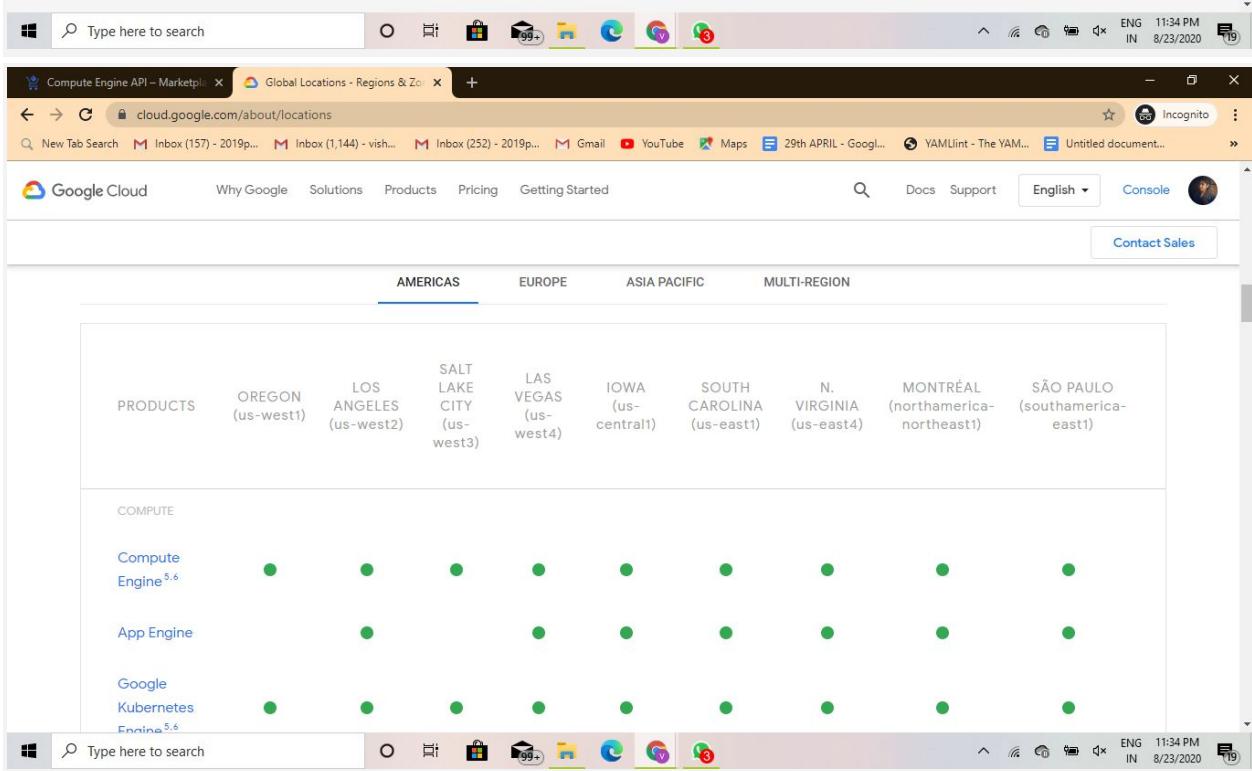
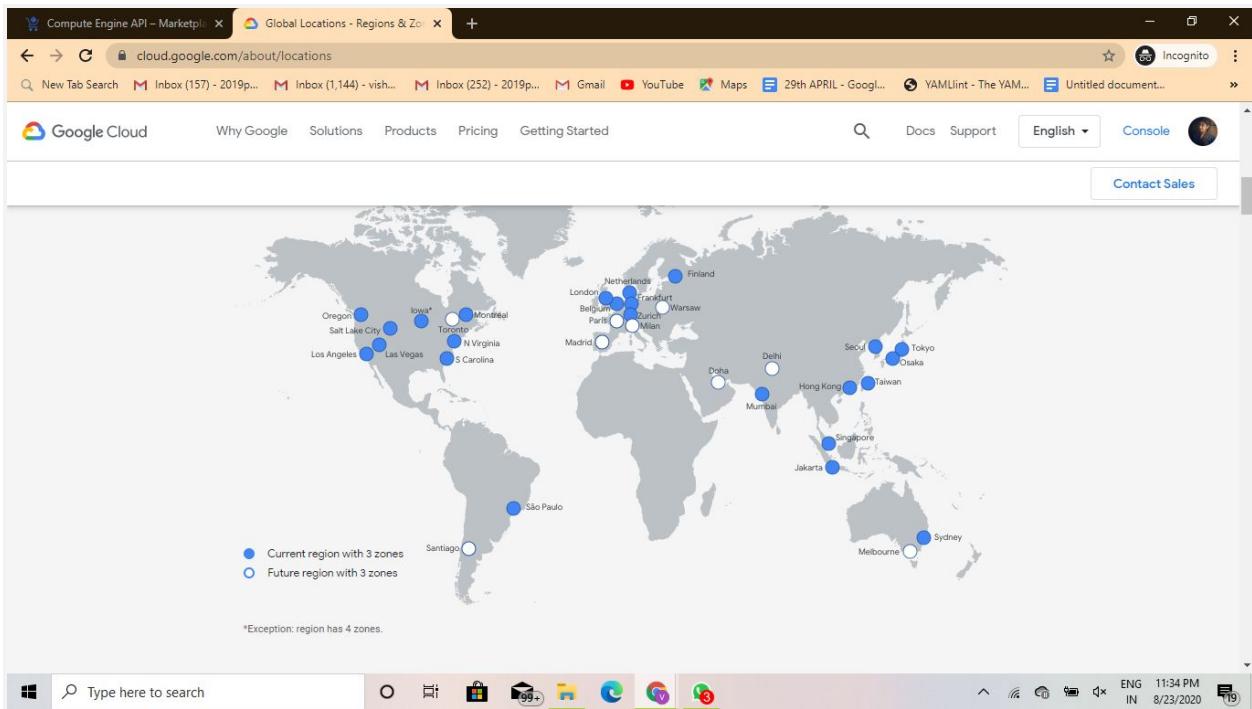
user/tenant

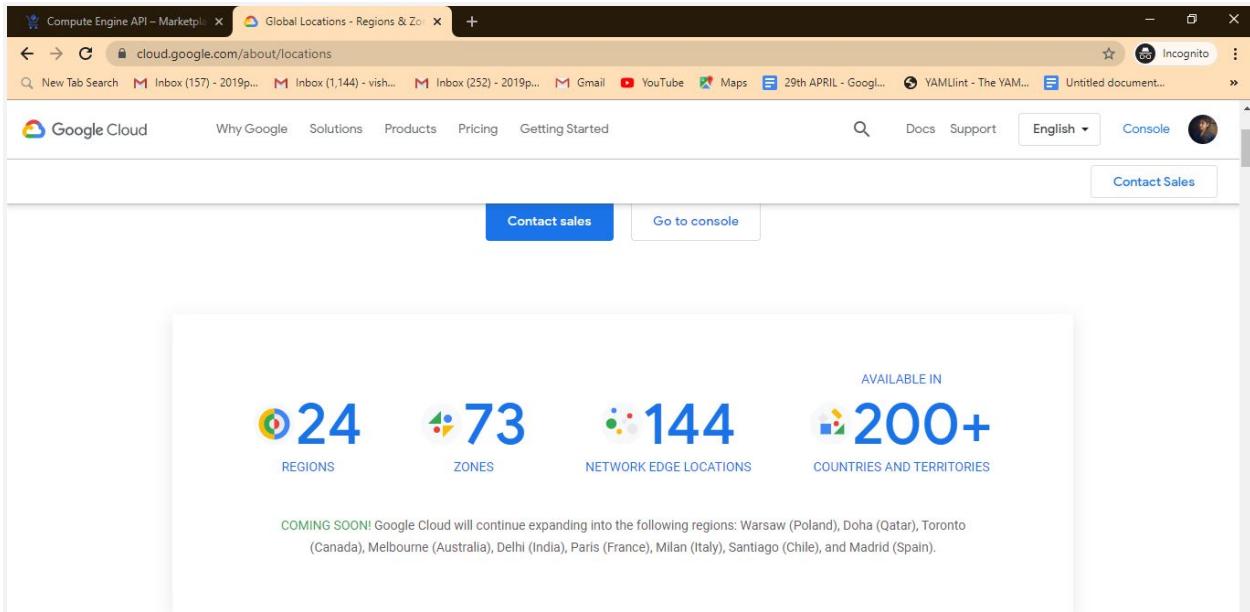
The screenshot shows the Google Cloud Platform dashboard for the project 'My First Project'. The left sidebar has a 'sole-tenant nodes' dropdown menu open, showing options like Machine Images, Disks, Snapshots, Images, TPUs, Migrate for Compute Engine, Committed use discounts, Metadata, Health checks, Zones, Network endpoint groups, Operations, Security scans, OS patch management (NEW), and Settings. The main dashboard area includes sections for 'RECOMMENDATIONS' (with a COVID-19 help link), 'API APIs' (showing requests per second over time), 'Google Cloud Platform status' (all services normal), and 'Monitoring' (with links to set up alerting policies and create uptime checks). The bottom of the screenshot shows a Windows taskbar with various pinned icons.

data center/zone

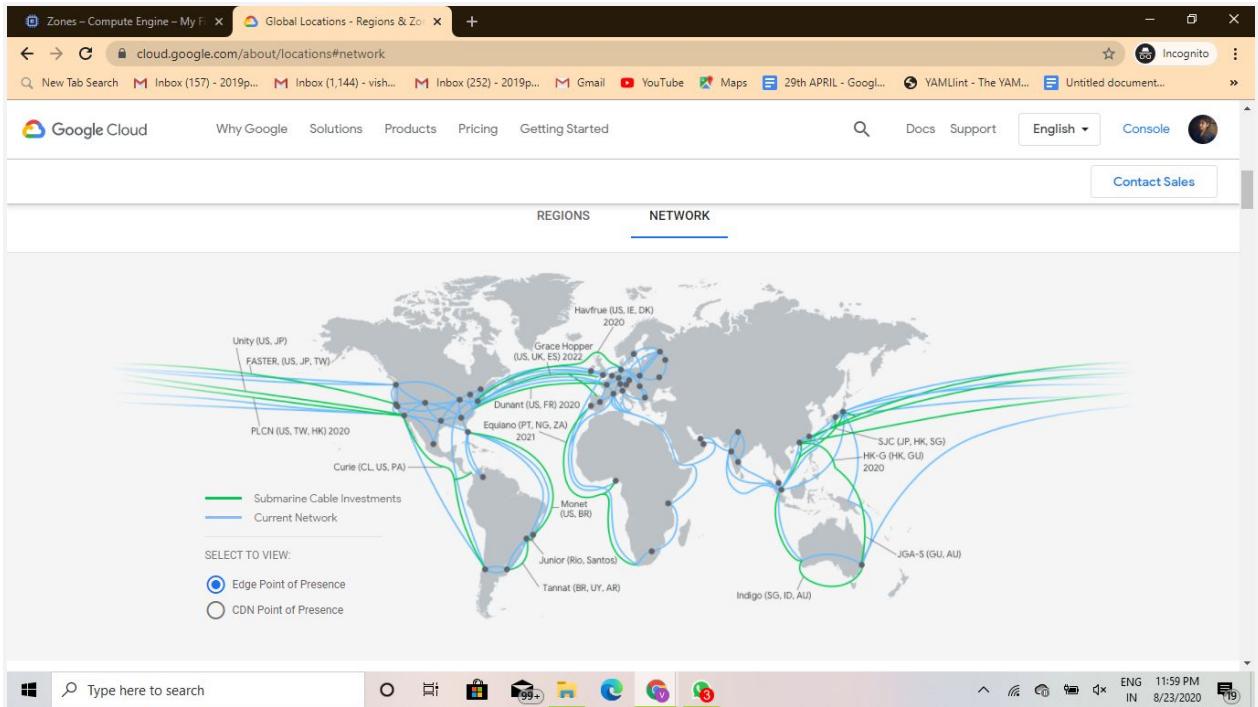
Gcp also has a concept of multi-region

<https://cloud.google.com/infrastructure>





A screenshot of a web browser showing the Google Cloud Platform Zones page. The URL is console.cloud.google.com/compute/zones?project=groovy-ward-287313. The page lists three regions: asia-east1, asia-east2, and asia-northeast1. Each region has three zones: Zone A, Zone B, and Zone C, all of which currently have 0 instances and 0 disks. The left sidebar shows a navigation menu for Compute Engine, including VM instances, Instance groups, Instance templates, Sole-tenant nodes, Machine images, Disks, Snapshots, Images, and TPUs. There are also links for Migrate for Compute Engine and Marketplace. The top of the screen shows the Windows taskbar with various pinned icons and the system tray indicating the date and time as 8/23/2020 at 11:57 PM.



<https://cloud.google.com/about/locations#network>

The screenshot shows the Google Cloud Platform API library interface. The left sidebar has a 'Compute' category selected under 'API & Services'. The main area displays several API services:

- App Engine Admin API** (Google): Provisions and manages developers' App Engine applications.
- Cloud Run API** (Google): Serverless agility for containerized apps.
- Compute Engine API** (Google): Compute Engine API.
- Compute Engine Instance Group Manager API** (Google): The Google Compute Engine Instance Group Manager API provides services for creating and...
- Google App Engine Flexible Environment** (Google): This service enables App Engine's Flexible Environment, which gives you the benefits of App...
- Kubernetes Engine API** (Google): Builds and manages container-based applications, powered by the open source Kubernetes

The URL in the address bar is <https://console.cloud.google.com/apis/library?filter=category%3Acompute&project=groovy-ward-287313>.

three ways to connect with the api:

WEBUI

CLI

SDK

to activate cloud shell

The screenshot shows two separate sessions of the Google Cloud Platform Compute Engine API Cloud Shell. The top session is for the project 'groovy-ward-287313' and lists the file 'README-cloudshell.txt'. The bottom session is for the project 'lunar-campaign-287313' and also lists the same file. Both sessions show the command 'g96aayu@cloudshell:~ (groovy-ward-287313)\$' at the prompt.

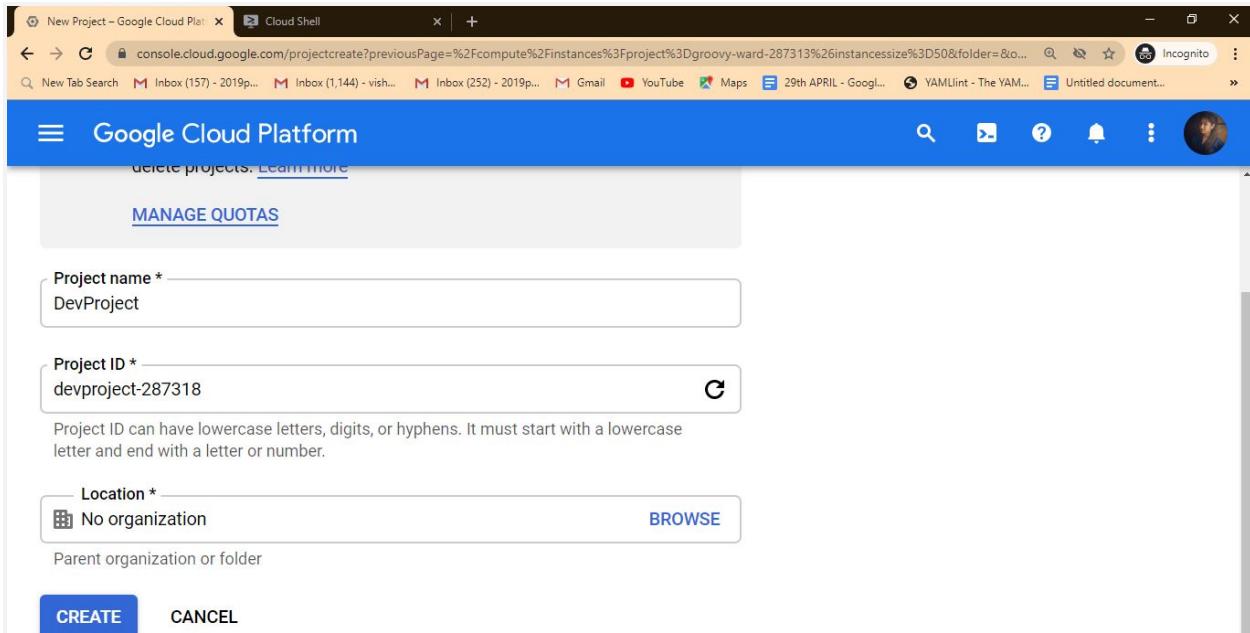
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to **groovy-ward-287313**.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
g96aayu@cloudshell:~ (groovy-ward-287313)\$ ls
README-cloudshell.txt
g96aayu@cloudshell:~ (groovy-ward-287313)\$

Select a project

Name	ID
My First Project	groovy-ward-287313
My First Project	lunar-campaign-287313

CANCEL OPEN

two projects one for developer team and other for the production team



The screenshot shows the 'New Project' creation form on the Google Cloud Platform. The project name is 'DevProject', the project ID is 'devproject-287318', and the location is 'No organization'. The 'CREATE' button is highlighted.

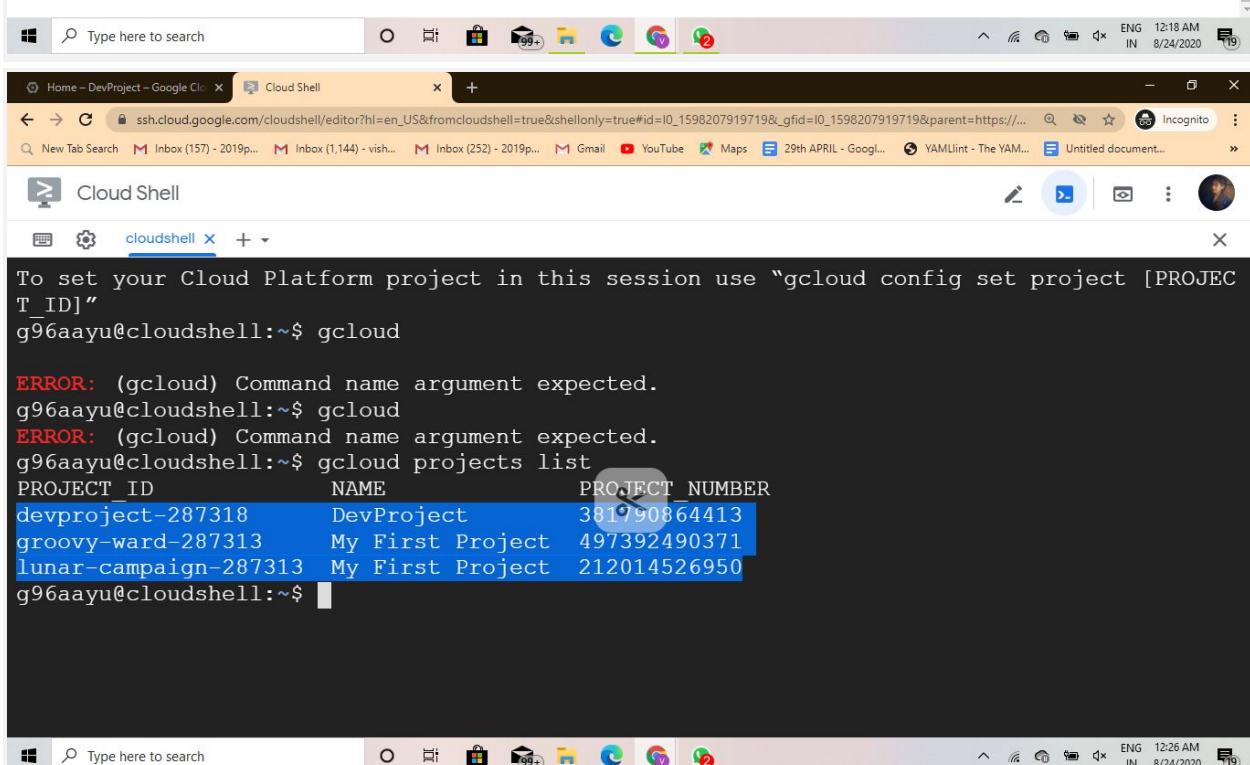
Project name * DevProject

Project ID * devproject-287318

Project ID can have lowercase letters, digits, or hyphens. It must start with a lowercase letter and end with a letter or number.

Location * No organization

Parent organization or folder



To set your Cloud Platform project in this session use "gcloud config set project [PROJECT_ID]"

```
g96aayu@cloudshell:~$ gcloud
ERROR: (gcloud) Command name argument expected.
g96aayu@cloudshell:~$ gcloud
ERROR: (gcloud) Command name argument expected.
g96aayu@cloudshell:~$ gcloud projects list
PROJECT_ID          NAME        PROJECT_NUMBER
devproject-287318   DevProject  38190864413
groovy-ward-287313  My First Project  497392490371
lunar-campaign-287313  My First Project  212014526950
```

gcloud projects --help

```
g96aayu@cloudshell:~$ gcloud projects create prodporject-13242443 --name=ProdProject
Create in progress for [https://clouddesourcemanager.googleapis.com/v1/projects/prodporject-13242443].
Waiting for [operations/cp.5406887230002961125] to finish...done.
Enabling service [clouddesourcemanager.googleapis.com] on project [prodporject-13242443]...
Operation "operations/acf.c499373b-61e0-49d2-8336-6b7823d78b92" finished successfully.
g96aayu@cloudshell:~$ gcloud projects list
PROJECT_ID          NAME            PROJECT_NUMBER
devproject-287318   DevProject      38190864413
groovy-ward-287313 My First Project 40792490371
lunar-campaign-287313 My First Project 212014526950
prodporject-13242443 ProdProject    170726174900
g96aayu@cloudshell:~$
```

Select a project

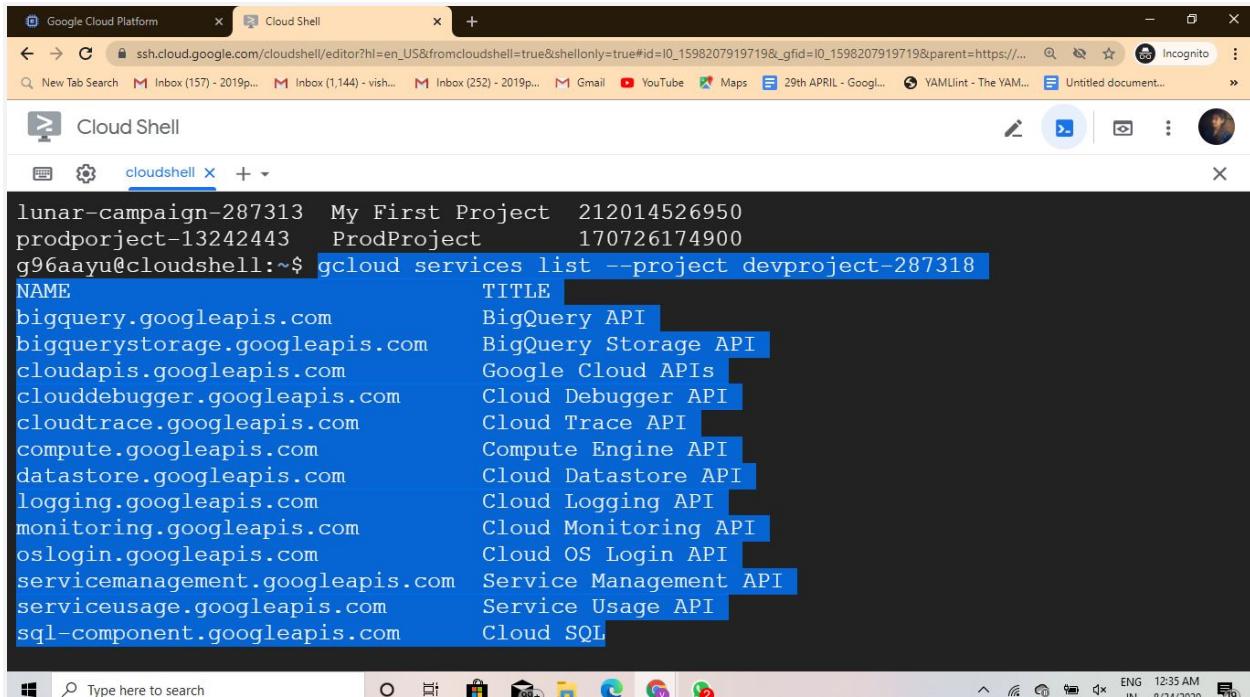
Search projects and folders

RECENT ALL

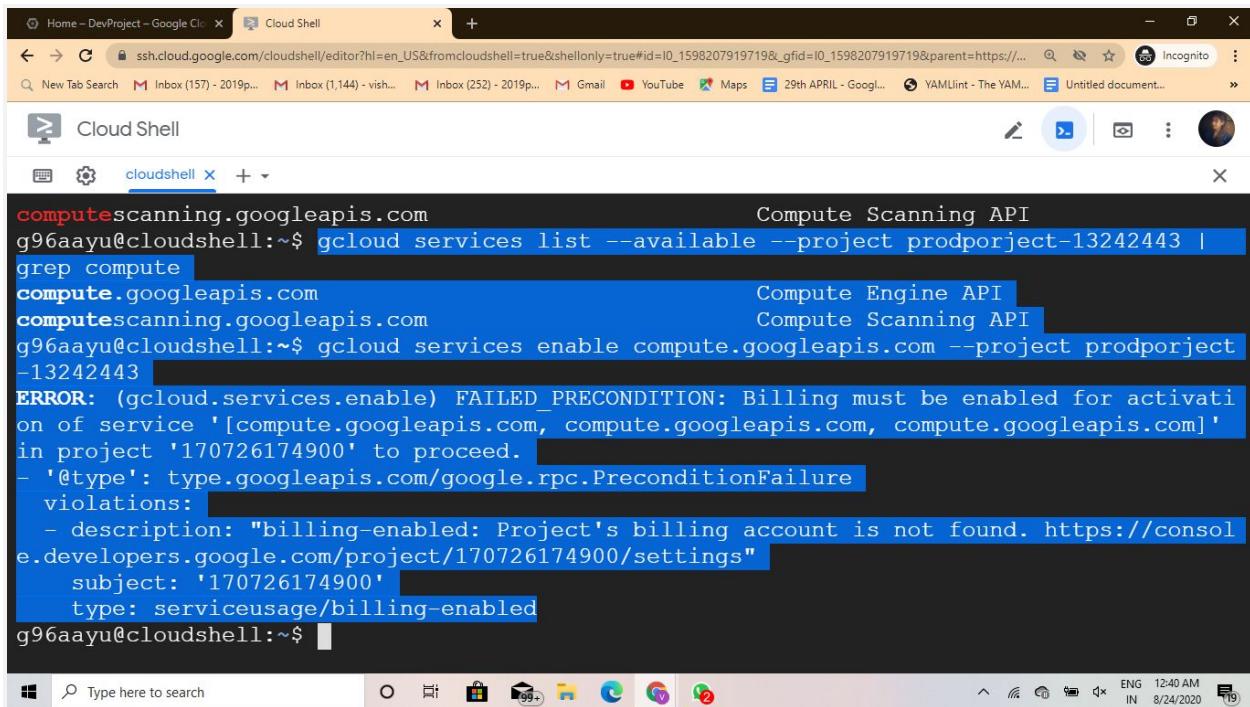
Name	ID
No organization	0
DevProject	devproject-287318
My First Project	groovy-ward-287313
My First Project	lunar-campaign-287313
ProdProject	prodporject-13242443

CANCEL OPEN

click on manage



```
lunar-campaign-287313 My First Project 212014526950
prodporject-13242443 ProdProject 170726174900
g96aayu@cloudshell:~$ gcloud services list --project devproject-287318
NAME                      TITLE
bigquery.googleapis.com    BigQuery API
bigquerystorage.googleapis.com BigQuery Storage API
cloudapis.googleapis.com   Google Cloud APIs
clouddebugger.googleapis.com Cloud Debugger API
cloudtrace.googleapis.com  Cloud Trace API
compute.googleapis.com    Compute Engine API
datastore.googleapis.com   Cloud Datastore API
logging.googleapis.com    Cloud Logging API
monitoring.googleapis.com Cloud Monitoring API
oslogin.googleapis.com    Cloud OS Login API
servicemanagement.googleapis.com Service Management API
serviceusage.googleapis.com Service Usage API
sql-component.googleapis.com Cloud SQL
```



```
compute.scanning.googleapis.com          Compute Scanning API
g96aayu@cloudshell:~$ gcloud services list --available --project prodporject-13242443 | grep compute
compute.googleapis.com                  Compute Engine API
compute.scanning.googleapis.com        Compute Scanning API
g96aayu@cloudshell:~$ gcloud services enable compute.googleapis.com --project prodporject-13242443
ERROR: (gcloud.services.enable) FAILED_PRECONDITION: Billing must be enabled for activation of service '[compute.googleapis.com, compute.googleapis.com, compute.googleapis.com]' in project '170726174900' to proceed.
- '@type': type.googleapis.com/google.rpc.PreconditionFailure
  violations:
    - description: "billing-enabled: Project's billing account is not found. https://console.developers.google.com/project/170726174900/settings"
      subject: '170726174900'
      type: serviceusage/billing-enabled
g96aayu@cloudshell:~$
```

Overview – Billing – DevProject – Cloud Shell

console.cloud.google.com/billing/0182F7-E5BF61-5DE78C?folder=&organizationId=&project=devproject-287318

New Tab Search | Inbox (157) - 2019p... | Inbox (1,144) - vish... | Inbox (252) - 2019p... | Gmail | YouTube | Maps | 29th APRIL - Googl... | YAMLint - The YAM... | Untitled document...

Google Cloud Platform

Billing

Overview

BILLING ACCOUNT C My Billing Account

All billing accounts

MANAGE BILLING ACCOUNTS

Current month August 1 – 24, 2020

Month-to-date total cost ₹0.00 End-of-month total cost (forecasted) ₹0.00

Not enough historical data to project cost

View recent costs

Now viewing project "DevProject" in organization "No organization"

Billing account Manage
My Billing Account, 0182F7-E5BF61-5DE78C

Organization
No organization

Enabled Google service ⓘ
Google Cloud Platform

Billing health checks

Check out your account health results to avoid common billing-related issues and

Type here to search

ENG 12:55 AM IN 8/24/2020

Cost trend

The screenshot shows the Google Cloud Platform Billing interface. At the top, there's a navigation bar with tabs for 'My billing accounts' and 'My projects'. Below this is a table listing four projects:

Name	ID	Billing account	Billing account ID	Actions
My First Project	groovy-ward-287313	My Billing Account	0182F7-E5BF61-5DE78C	⋮
My First Project	lunar-campaign-287313	My Billing Account	018476-C54842-9E2CCA	⋮
DevProject	devproject-287318	My Billing Account	0182F7-E5BF61-5DE78C	⋮
ProdProject	prodporject-13242443	Billing is disabled	—	⋮

A context menu is open over the 'ProdProject' row, showing options: 'Disable billing' (highlighted) and 'Change billing'.

The screenshot shows a Cloud Shell terminal window. The user is attempting to enable the Compute Engine API for a project named 'prodporject-13242443'.

```
g96aayu@cloudshell:~$ gcloud services enable compute.googleapis.com --project prodporject-13242443
ERROR: (gcloud.services.enable) FAILED_PRECONDITION: Billing must be enabled for activation of service '[compute.googleapis.com, compute.googleapis.com, compute.googleapis.com]' in project '170726174900' to proceed.
- '@type': type.googleapis.com/google.rpc.PreconditionFailure
  violations:
  - description: "billing-enabled: Project's billing account is not found. https://console.developers.google.com/project/170726174900/settings"
    subject: '170726174900'
    type: serviceusage/billing-enabled
g96aayu@cloudshell:~$ gcloud services enable compute.googleapis.com --project prodporject-13242443

Operation "operations/acf.80172728-49f6-42f3-a44e-6cd9d08289b4" finished successfully.
g96aayu@cloudshell:~$
```

New VM instance from machine image

Create a single VM instance from an existing machine image

Marketplace

Deploy a ready-to-go solution onto a VM instance

Custom

Select vCPU cores and memory

Shared core

- f1-micro
- 1 vCPU, 614 MB memory
- g1-small
- 1 vCPU, 1.7 GB memory

Standard

- n1-standard-1
- 1 vCPU, 3.75 GB memory
- n1-standard-2
- 2 vCPU, 7.5 GB memory
- n1-standard-4
- 4 vCPU, 15 GB memory
- n1-standard-8
- 8 vCPU, 30 GB memory

To create a VM instance, select one of the options:

New VM instance

Create a single VM instance from scratch

New VM instance from template

Create a single VM instance from an existing template

New VM instance from machine image

Create a single VM instance from an existing machine image

Marketplace

Name ?
Name is permanent

instance-1

Labels ? (Optional)

+ Add label

Region ?
Region is permanent

asia-south1 (Mumbai)

Zone ?
Zone is permanent

asia-south1-a

Machine configuration

Machine family

General-purpose Memory-optimized Compute-optimized

Machine types for common workloads, optimized for cost and flexibility

Series

N1

Powered by Intel Skylake CPU platform or one of its predecessors

You have ₹21,406.50 free trial credit

\$29.61 monthly estimate

That's about \$0.041 hourly

Pay for what you use: No upfront costs

Google Cloud Platform

Cloud Shell

console.cloud.google.com/compute/instancesAdd?project=prodprojetc-13242443&folder&organizationId

New Tab Search | Inbox (157) - 2019p... | Inbox (1,144) - vish... | Inbox (252) - 2019p... | Gmail | YouTube | Maps | 29th APRIL - Googl... | YAMLint - The YAM... | Untitled document...

Incognito

Google Cloud Platform

Create an instance

Boot disk

Select an image or snapshot to create a boot disk; or attach an existing disk. Can't find what you're looking for? Explore hundreds of VM solutions in [Marketplace](#).

Public images | Custom images | Snapshots | Existing disks

Operating system: CentOS

Version: CentOS 7

x86_64 built on 20200811, supports Shielded VM features

Boot disk type: Standard persistent disk

Size (GB): 20

Select | Cancel

Type here to search

Cloud Shell

Google Cloud Platform | ProdProject

Create an instance

Boot disk

New 20 GB standard persistent disk

Image: CentOS 7

Change

Identity and API access

Service account: Compute Engine default service account

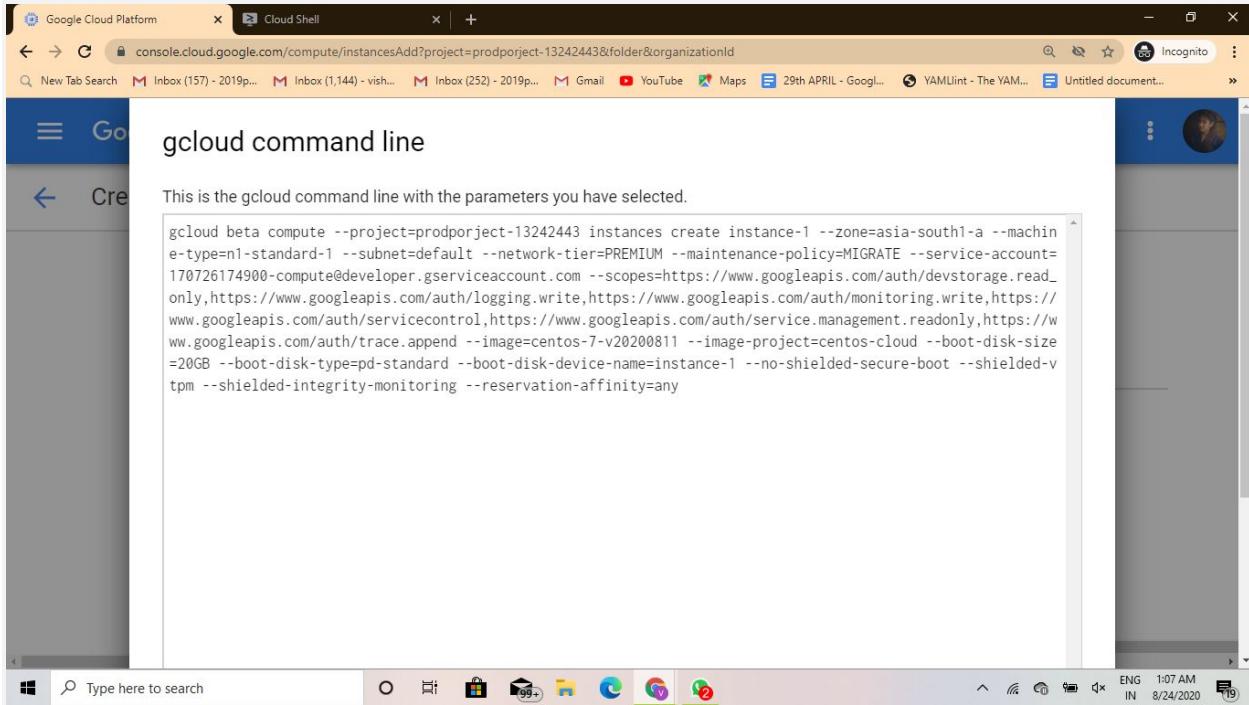
Access scopes

Allow default access

Allow full access to all Cloud APIs

Set access for each API

Type here to search



The screenshot shows a Google Cloud Platform Cloud Shell window. The title bar reads "Cloud Shell". The URL in the address bar is "console.cloud.google.com/compute/instancesAdd?project=prodporject-13242443&folder&organizationId". The main content area displays the "gcloud command line" with the following text:

```
gcloud beta compute --project=prodporject-13242443 instances create instance-1 --zone=asia-south1-a --machine-type=n1-standard-1 --subnet=default --network-tier=PREMIUM --maintenance-policy=MIGRATE --service-account=170726174900-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/servicecontrol,https://www.googleapis.com/auth/service.management.readonly,https://www.googleapis.com/auth/trace.append --image=centos-7-v20200811 --image-project=centos-cloud --boot-disk-size=20GB --boot-disk-type=pd-standard --boot-disk-device-name=instance-1 --no-shielded-secure-boot --shielded-vtpm --shielded-integrity-monitoring --reservation-affinity=any
```

```
gcloud beta compute --project=prodporject-13242443 instances create instance-1
--zone=asia-south1-a --machine-type=n1-standard-1 --subnet=default
--network-tier=PREMIUM --maintenance-policy=MIGRATE
--service-account=170726174900-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/servicecontrol,https://www.googleapis.com/auth/service.management.readonly,https://www.googleapis.com/auth/trace.append
--image=centos-7-v20200811 --image-project=centos-cloud --boot-disk-size=20GB
--boot-disk-type=pd-standard --boot-disk-device-name=instance-1
--no-shielded-secure-boot --shielded-vtpm --shielded-integrity-monitoring
--reservation-affinity=any
```

The screenshot shows the Google Cloud Platform Compute Engine VM instances page. On the left sidebar, under 'Compute Engine', the 'VM instances' option is selected. A notification panel on the right displays three entries:

- A red warning message: "Create VM Instance 'instance-1' and its boot disk 'instance-1'" Just now. It states: "The zone 'projects/prodprojetc-13242443/zones/asia-south1-a' does not have enough resources available to fulfill the request. Try a different zone, or try again later." with a "RETRY" button.
- A green success message: "Initializing Compute Engine for project DevProject" 48 minutes ago.
- A green success message: "Create Project: DevProject" 50 minutes ago.

Below the notifications, the main table lists one VM instance:

Name	Zone	Recommendation	In use by	Internal IP	External IP	Connect
os1	asia-southeast1-b			10.148.0.2 (nic0)	34.87.116.62	SSH

At the bottom of the table, there is a "Related Actions" section with a "Dismiss" button.

```
g96aayu@os1:~ - Google Chrome
ssh.cloud.google.com/projects/prodproject-13242443/zones/asia-southeast1-b/instances/os1?useAdminProxy=true&authuser=0&hl=en_US&projectNumber=170726174900
Connected, host fingerprint: ssh-rsa 0 09:04:9C:1F:A9:F9:AD:10:24:82:2F:90:45:5A
:BE:FC:8F:58:76:EB:A2:3D:5B:08:E6:D0:14:2F:31:E8:4F:92
[g96aayu@os1 ~]$ free -m
              total        used        free      shared   bu
ff/cache    available
Mem:          3536         169       3210          8
      157         3169
Swap:           0          0          0
[g96aayu@os1 ~]$
```

```
Type here to search  O  ENG 1:13 AM
IN 8/24/2020 19
root@os1:~ - Google Chrome
ssh.cloud.google.com/projects/prodproject-13242443/zones/asia-southeast1-b/instances/os1?useAdminProxy=true&authuser=0&hl=en_US&projectNumber=170726174900
Complete!
[root@os1 ~]# systemctl start httpd
[root@os1 ~]# systemctl enable httpd
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.
[root@os1 ~]# systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor preset: disabled)
   Active: active (running) since Sun 2020-08-23 19:45:05 UTC; 20s ago
     Docs: man:httpd(8)
           man:apachectl(8)
 Main PID: 1463 (httpd)
   Status: "Total requests: 0; Current requests/sec: 0; Current traffic: 0 B/sec"
   CGroup: /system.slice/httpd.service
           ├─1463 /usr/sbin/httpd -DFOREGROUND
           ├─1464 /usr/sbin/httpd -DFOREGROUND
           ├─1465 /usr/sbin/httpd -DFOREGROUND
           ├─1466 /usr/sbin/httpd -DFOREGROUND
           ├─1467 /usr/sbin/httpd -DFOREGROUND
           └─1468 /usr/sbin/httpd -DFOREGROUND

Aug 23 19:45:05 os1 systemd[1]: Starting The Apache HTTP Server...
Aug 23 19:45:05 os1 systemd[1]: Started The Apache HTTP Server.
[root@os1 ~]#
```

```
root@os1:/var/www/html - Google Chrome
ssh.cloud.google.com/projects/prodproject-13242443/zones/asia-southeast1-b/instances/os1?useAdminProxy=true&authUser=0&hl=en_US&projectNumber=170726174900
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1460
    inet 10.148.0.2 netmask 255.255.255 broadcast 10.148.0.2
    inet6 fe80::4001:aff:fe94:2 prefixlen 64 scopeid 0x20<link>
        ether 42:01:0a:94:00:02 txqueuelen 1000 (Ethernet)
        RX packets 3791 bytes 22802671 (21.7 MiB)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 3423 bytes 309675 (302.4 KiB)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
        loop txqueuelen 1000 (Local Loopback)
        RX packets 0 bytes 0 (0.0 B)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 0 bytes 0 (0.0 B)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[root@os1 html]# cat > index.html
my website vishesh garg
[root@os1 html]# cat index.html
my website vishesh garg
[root@os1 html]# ls
index.html
[root@os1 html]# █
Type here to search  O  Microsoft Edge  File  Home  Downloads  Photos  Google Photos  Google Sheets  Google Sheets  19
ENG 1:24 AM
IN 8/24/2020

C:\Windows\system32\cmd.exe - ping 34.87.116.62
Microsoft Windows [Version 10.0.18362.959]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\user>ping 34.87.116.62

Pinging 34.87.116.62 with 32 bytes of data:
Reply from 34.87.116.62: bytes=32 time=117ms TTL=56
Reply from 34.87.116.62: bytes=32 time=117ms TTL=56
Reply from 34.87.116.62: bytes=32 time=98ms TTL=56

Type here to search  O  Microsoft Edge  File  Home  Downloads  Photos  Google Photos  Google Sheets  Google Sheets  19
ENG 1:25 AM
IN 8/24/2020
```

The screenshot shows two windows from the Google Cloud Platform interface.

Top Window: Firewall

The title bar says "Firewall - VPC network - ProdProject". The URL is "console.cloud.google.com/networking/firewalls/list?project=prodprojetc-13242443". The page displays a table of firewall rules:

Name	Type	Targets	Filters	Protocols / ports	Action	Priority	N
http-firewall	Egress	Apply to all	IP ranges: 0.0.0.0/0	tcp:80	Allow	1000	down
default-allow-icmp	Ingress	Apply to all	IP ranges: 0.0.0.0/0	icmp	Allow	65534	down

Bottom Window: VM instances

The title bar says "VM instances - ProdProject". The URL is "console.cloud.google.com/compute/instances?project=prodprojetc-13242443&instancessize=50". The page displays a table of VM instances:

Name	Zone	Recommendation	In use by	Internal IP	External IP	Connect
os1	asia-southeast1-b			10.148.0.2 (nic0)	34.87.116.62	SSH

A "Related Actions" dropdown menu is open, showing the URL "https://console.cloud.google.com/networking/networkinterfaces/zones/asia-southeast1-b/instances/os1?networkInterface=nic0&project=prodprojetc-13242443".



my website vishesh garg

```
root@os1:~# Type here to search ○ 🌐 📁 📤 📥 📺 📹 ENG 1:43 AM IN 8/24/2020 📰

root@os1:~# ssh.cloud.google.com/projects/prodproj-13242443/zones/asia-southeast1-b/instances/os1?useAdminProxy=true&authuser=0&hl=en_US&projectNumber=170726174900
inet6 ::1 prefixlen 128 scopeid 0x10<host>
loop txqueuelen 1000 (Local Loopback)
RX packets 0 bytes 0 (0.0 B)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 0 bytes 0 (0.0 B)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[root@os1 html]# cat > index.html
my website vishesh garg
[root@os1 html]# cat index.html
my website vishesh garg
[root@os1 html]# ls
index.html
[root@os1 html]# yum install docker
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: mirror.nus.edu.sg
 * epel: d2lzk17pfhq30w.cloudfront.net
 * extras: mirror.newmediaexpress.com
 * updates: mirror.newmediaexpress.com
Resolving Dependencies
--> Running transaction check
--> Package docker.x86_64 2:1.13.1-162.git64e9980.el7.centos will be installed
--> Processing Dependency: docker-common = 2:1.13.1-162.git64e9980.el7.centos for package: 2:docker-1.13.1-162.git64e9980.el7.centos.x86_64
root@os1:~# Type here to search ○ 🌐 📁 📤 📥 📺 📹 ENG 1:45 AM IN 8/24/2020 📰
```

vpc-peering

The screenshot displays two windows from the Google Cloud Platform interface.

Top Window: VM instance details

- Instance Name:** os1
- Remote access:** Enable connecting to serial ports
- Instance Id:** 18936470038345932
- Machine type:** You must stop the VM instance to edit its machine type
n1-standard-1 (1 vCPU, 3.75 GB memory)
- Reservation:** Automatically choose
- CPU platform:** Intel Broadwell

Bottom Window: Networking

- Pins appear here** (highlighted with a dashed blue box)
- Networking Options:**
 - VPC network
 - Network services
 - Hybrid Connectivity
 - Network Service Tiers
 - Network Security
- Selected: VPC network**
- Submenu:**
 - VPC networks
 - External IP addresses
 - Firewall
 - Routes
 - VPC network peering
 - Shared VPC
 - Serverless VPC access
 - Packet mirroring
- Table View:** Internal IP | External IP | Connect
10.148.0.2 (nic0) | 34.87.116.62 | SSH

The screenshot shows the 'Create a VPC network' page in the Google Cloud Platform. The 'Name' field is filled with 'vpcproduction'. The 'Description' field is empty. On the left, there is a sidebar with various icons. At the bottom, the taskbar shows several open tabs and the system tray indicates the date and time as 8/24/2020 at 1:59 AM.

Create a VPC network

Name * vpcproduction

Description

Subnets

Subnets let you create your own private cloud topology within Google Cloud. Click Automatic to create a subnet in each region, or click Custom to manually define the subnets. [Learn more](#)

Type here to search

Cloud Shell | 34.87.116.62 | Incognito (2)

New Tab Search | Gmail | YouTube | Maps | 29th APRIL - Google... | YAMLLint - The YAM... | Untitled document...

ENG IN 8/24/2020 1:59 AM

The screenshot shows the 'New subnet' configuration page. The 'Name' field is filled with 'lab1'. The 'Region' dropdown is set to 'asia-southeast1'. The 'IP address range' field is empty. The 'Create secondary IP range' button is visible below. The taskbar and system tray are identical to the previous screenshot.

Create a VPC network

New subnet

Name * lab1

Add a description

Region * asia-southeast1

IP address range *

Create secondary IP range

Type here to search

Cloud Shell | 34.87.116.62 | Incognito (2)

New Tab Search | Gmail | YouTube | Maps | 29th APRIL - Google... | YAMLLint - The YAM... | Untitled document...

ENG IN 8/24/2020 2:00 AM

Create a VPC network – VPC net: Cloud Shell 34.87.116.62

console.cloud.google.com/networking/networks/add?project=prodprojec... Incognito (2)

New Tab Search Gmail YouTube Maps 29th APRIL - Google... YAMLLint - The YAM...

Untitled document...

Google Cloud Platform ProdProject

Create a VPC network

Add a description

Region * asia-southeast1

IP address range * 10.0.1.0/24

Create secondary IP range

Private Google access ?

On Off

Flow logs

Turning on VPC flow logs doesn't affect performance, but some systems generate a large number of logs, which can increase costs in

Create a VPC network – VPC net: Cloud Shell 34.87.116.62

console.cloud.google.com/networking/networks/add?project=devprojec... Incognito (2)

New Tab Search Gmail YouTube Maps 29th APRIL - Google... YAMLLint - The YAM...

Untitled document...

Google Cloud Platform DevProject

Create a VPC network

Name * vpcdev

Lowercase letters, numbers, hyphens allowed

Description

Subnets

Subnets let you create your own private cloud topology within Google Cloud. Click Automatic to create a subnet in each region, or click Custom to manually define the subnets. [Learn more](#)

Google Cloud Platform DevProject

Create a VPC network

Name * lab1
Region * us-east1
IP address range * 10.0.2.0/24
Private Google access ?
On

VPC networks - VPC network

	europe-west6	default	10.172.0.0/20	10.172.0.1
	asia-northeast2	default	10.174.0.0/20	10.174.0.1
	asia-northeast3	default	10.178.0.0/20	10.178.0.1
	us-west3	default	10.180.0.0/20	10.180.0.1
	us-west4	default	10.182.0.0/20	10.182.0.1
	asia-southeast2	default	10.184.0.0/20	10.184.0.1
vpcdev	1	Custom	0	Off
	us-east1	lab1	10.0.2.0/24	10.0.2.1

The screenshot shows a Google Cloud Platform Cloud Shell window. The title bar says "Cloud Shell". The address bar shows the URL: "console.cloud.google.com/compute/instancesAdd?project=devproject-287318". The main content area is titled "Google Cloud Platform" and "DevProject". Below it, a sub-header says "Create an instance". A sidebar on the left lists three options: "New VM instance", "New VM instance from template", and "New VM instance from machine image". The "New VM instance" option is selected and expanded, showing the sub-instruction "Create a single VM instance from scratch". To the right of the sidebar, there is a "Draft" message: "You have a draft that wasn't submitted, click Restore to keep working on it" with a "Restore" button. The main configuration area includes fields for "Name" (set to "dev-instance"), "Labels" (with an "Add label" button), "Region" (set to "us-east1 (South Carolina)"), "Zone" (set to "us-east1-b"), and a "Machine configuration" section. At the bottom of the screen, there is a taskbar with various icons and a system tray showing the date and time.

To create a VM instance, select one of the options:

- New VM instance**
Create a single VM instance from scratch
- New VM instance from template**
Create a single VM instance from an existing template
- New VM instance from machine image**
Create a single VM instance from

Name Name is permanent
dev-instance

Labels (Optional) **Add label**

Region Region is permanent **Zone** Zone is permanent
us-east1 (South Carolina) us-east1-b

Machine configuration

click edit

The image displays two screenshots of the Google Cloud Platform interface.

Screenshot 1: VM Instances

This screenshot shows the 'VM instances' page for the 'DevProject'. A table lists one instance:

Name	Zone	Recommendation	In use by	Internal IP	External IP	Connect
dev-instance	us-east1-b			10.0.2.2 (nic0)	104.196.174.100	SSH

Screenshot 2: Create an instance

This screenshot shows the 'Create an instance' dialog for the 'ProdProject'. The left sidebar lists three options:

- New VM instance**: Create a single VM instance from scratch.
- New VM instance from template**: Create a single VM instance from an existing template.
- New VM instance from machine image**: Create a single VM instance from a machine image.

The right side of the dialog is filled with configuration fields:

- Name**: prod-instance
- Labels**: (Optional) Add label
- Region**: asia-southeast1 (Singapore)
- Zone**: asia-southeast1-b
- Machine configuration**: (partially visible)

The screenshot shows two windows side-by-side, both from the Google Cloud Platform interface.

Top Window: Boot disk

This window is titled "Boot disk". It allows users to select an image or snapshot to create a boot disk or attach an existing disk. A message at the top says: "Select an image or snapshot to create a boot disk; or attach an existing disk. Can't find what you're looking for? Explore hundreds of VM solutions in Marketplace." Below this are tabs for "Public images", "Custom images", "Snapshots", and "Existing disks", with "Public images" selected. Under "Operating system", "CentOS" is chosen. Under "Version", "CentOS 7" is chosen. A note below states: "x86_64 built on 20200811, supports Shielded VM features". Configuration options for "Boot disk type" (set to "Standard persistent disk") and "Size (GB)" (set to 20) are shown. At the bottom are "Select" and "Cancel" buttons.

Bottom Window: Create an instance

This window is titled "Create an instance". It shows configuration for a new VM instance. The "Hostname" field is set to "prod-instance.asia-southeast1-b.c.prodporject-13242443.internal". The "Network interfaces" section lists "default default (10.148.0.0/20)". A button to "Add network interface" is visible. Below these fields is a "Less" link. The status bar at the bottom indicates "2:07 AM IN 8/24/2020".

The screenshot shows two windows side-by-side, both displaying the Google Cloud Platform interface.

Top Window (Create an instance):

- Header: Google Cloud Platform, ProdProject
- Section: Network interface
- Network: vpcproduction
- Subnetwork: lab1 (10.0.1.0/24)
- Primary internal IP: Ephemeral (Automatic)
- Show alias IP ranges: (checkbox)
- External IP: (dropdown menu)

Bottom Window (VM instances):

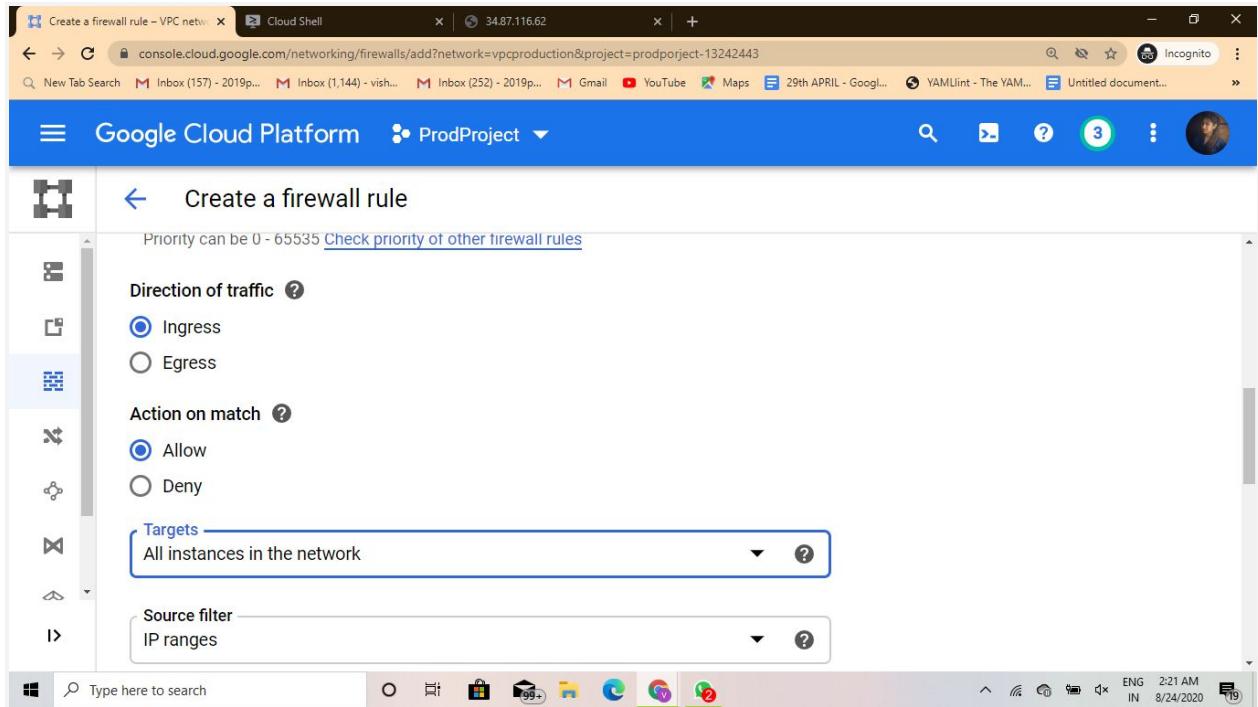
- Header: Google Cloud Platform, ProdProject
- Section: VM instances
- Table:

Name	Zone	Recommendation	In use by	Internal IP	External IP	Connect
prod-instance	asia-southeast1-b			10.0.1.2 (nic0)	34.87.116.62	SSH

- Related Actions: Dismiss

The screenshot shows a Windows desktop environment with several open windows:

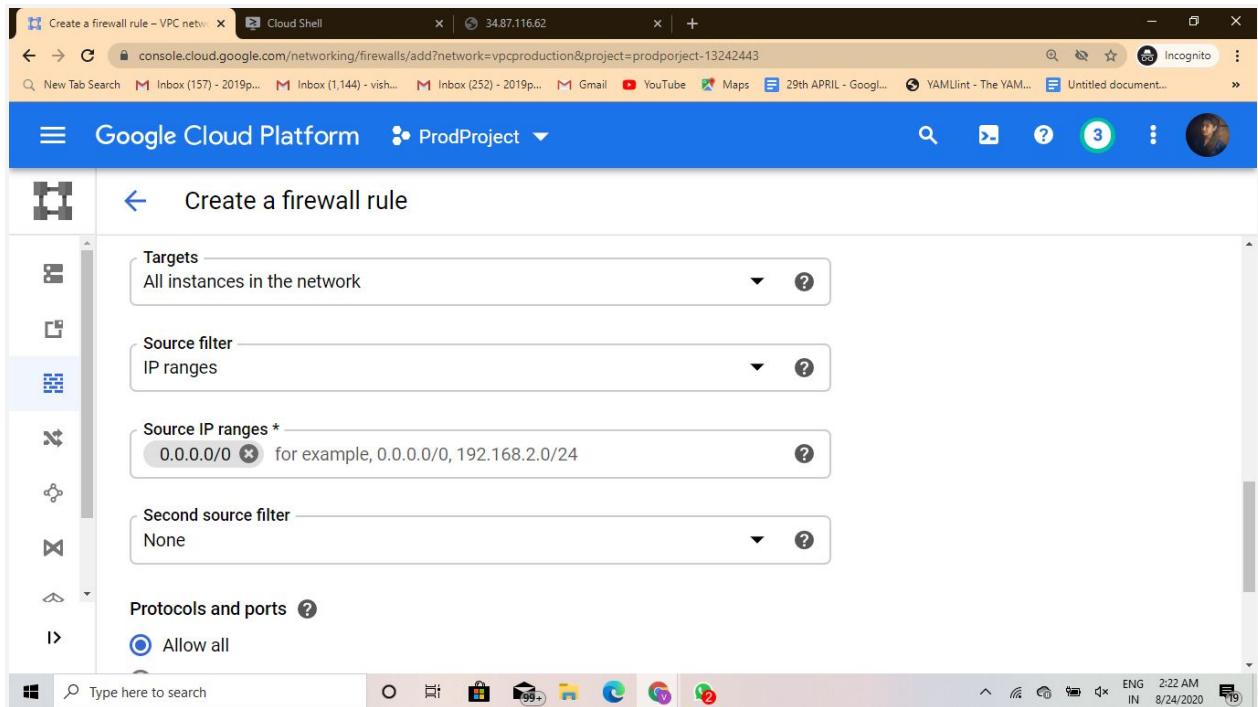
- Google Chrome (Left Window):** Displays a message about adding a firewall rule for Cloud IAP. It also shows a "Connection Failed" dialog box stating "We are unable to connect to the VM on port 22." Buttons for "Retry" and "Close" are visible.
- Windows Taskbar:** Shows the Start button, a search bar, and icons for various applications like File Explorer, Edge, and Google Chrome.
- Cloud Shell (Top Right Window):** An Incognito tab showing a table with one row of data: External IP (34.87.116.62) and Connect (SSH). A "Columns" dropdown and a "Dismiss" button are present.
- Cloud Shell (Bottom Right Window):** An Incognito tab showing the URL <https://console.cloud.google.com/networking/networks/details/vpcproduction?project=prodproject-13242443&pageTab=FIREWALLS&networkDetailsFirewallTables...>. The page title is "Google Cloud Platform - ProdProject". It displays "VPC network details" with a "DNS server policy" set to "None". The "Firewall rules" tab is selected, showing a table with no matching results. Headers for the table include Name, Type, Targets, Filters, Protocols / ports, Action, Priority, Logs, Hit count, and Last hit.
- Windows Taskbar (Bottom):** Shows the Start button, a search bar, and icons for File Explorer, Edge, Google Chrome, and other system icons.



The screenshot shows the 'Create a firewall rule' page in the Google Cloud Platform. The configuration includes:

- Direction of traffic:** Ingress (selected)
- Action on match:** Allow (selected)
- Targets:** All instances in the network
- Source filter:** IP ranges

At the bottom of the page, there is a note: "Priority can be 0 - 65535 [Check priority of other firewall rules](#)".



The screenshot shows the 'Create a firewall rule' page with more detailed configurations:

- Targets:** All instances in the network
- Source filter:** IP ranges
- Source IP ranges ***: 0.0.0.0/0 (example: 0.0.0.0/0, 192.168.2.0/24)
- Second source filter:** None
- Protocols and ports:** Allow all (selected)

At the bottom of the page, there is a note: "Priority can be 0 - 65535 [Check priority of other firewall rules](#)".

The image shows two screenshots of the Google Cloud Platform interface, both displayed in a Microsoft Edge browser window.

Top Screenshot: VPC network details

This screenshot shows the "VPC network details" page for a specific network. The "Firewall rules" tab is selected. At the top, there is an "EDIT" button and a "DELETE VPC NETWORK" button. Below the tabs, there are buttons for "Add firewall rule" and "Delete". A search bar labeled "Filter resources" is present, along with a "Columns" dropdown. A table below shows "No matching results".

Name	Type	Targets	Filters	Protocols / ports	Action	Priority	Logs	Hit count	Last hit
No matching results									

Bottom Screenshot: Create a firewall rule

This screenshot shows the "Create a firewall rule" page. It includes fields for "Targets" (set to "All instances in the network"), "Source filter" (set to "IP ranges"), "Source IP ranges" (containing "0.0.0.0/0" with a note about examples), "Second source filter" (set to "None"), and "Protocols and ports" (set to "Allow all").

Protocol	Port Range
Allow all	

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.18362.959]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\user>ping 104.196.174.100

Pinging 104.196.174.100 with 32 bytes of data:
Reply from 104.196.174.100: bytes=32 time=511ms TTL=47
Reply from 104.196.174.100: bytes=32 time=392ms TTL=47

Ping statistics for 104.196.174.100:
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 392ms, Maximum = 511ms, Average = 451ms
Control-C
^C
C:\Users\user>
```

```
 Type here to search  O  Microsoft Edge  File  Home  Downloads  Google Chrome  Photos  Pictures  Videos  Apps  ENG 2:24 AM IN 8/24/2020 19

g96aayu@prod-instance:~ - Google Chrome
ssh.cloud.google.com/projects/prodporject-13242443/zones/asia-southeast1-b/instances/prod-instance?useAdminProxy=true&authUser=0&hl=en_US&projectNumber=170726174900
[g96aayu@prod-instance ~]$ ping 104.196.174.100
PING 104.196.174.100 (104.196.174.100) 56(84) bytes of data.
64 bytes from 104.196.174.100: icmp_seq=1 ttl=55 time=220 ms
64 bytes from 104.196.174.100: icmp_seq=2 ttl=55 time=220 ms
64 bytes from 104.196.174.100: icmp_seq=3 ttl=55 time=220 ms
64 bytes from 104.196.174.100: icmp_seq=4 ttl=55 time=220 ms
^C
--- 104.196.174.100 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3001ms
rtt min/avg/max/mdev = 220.430/220.571/220.728/0.585 ms
[g96aayu@prod-instance ~]$
```

```
g96aayu@prod-instance~ - Google Chrome
ssh.cloud.google.com/projects/prodproject-13242443/zones/asia-southeast1-b/instances/prod-instance?useAdminProxy=true&authuser=0&hl=en_US&projectNumber=170726174900
[g96aayu@prod-instance ~]$ ping 104.196.174.100
PING 104.196.174.100 (104.196.174.100) 56(84) bytes of data.
64 bytes from 104.196.174.100: icmp_seq=1 ttl=55 time=220 ms
64 bytes from 104.196.174.100: icmp_seq=2 ttl=55 time=220 ms
64 bytes from 104.196.174.100: icmp_seq=3 ttl=55 time=220 ms
64 bytes from 104.196.174.100: icmp_seq=4 ttl=55 time=220 ms
^C
--- 104.196.174.100 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3001ms
rtt min/avg/max/mdev = 220.430/220.571/220.728/0.585 ms
[g96aayu@prod-instance ~]$ ping 10.0.2.2
PING 10.0.2.2 (10.0.2.2) 56(84) bytes of data.
```



```
g96aayu@prod-instance~ - Google Chrome
ssh.cloud.google.com/projects/prodproject-13242443/zones/asia-southeast1-b/instances/prod-instance?useAdminProxy=true&authuser=0&hl=en_US&projectNumber=170726174900
^C
--- 10.0.2.2 ping statistics ---
18 packets transmitted, 0 received, 100% packet loss, time 16999ms

[g96aayu@prod-instance ~]$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1460
    inet 10.0.1.2 netmask 255.255.255.255 broadcast 10.0.1.2
        inet6 fe80::4001:aff:fe00:102 prefixlen 64 scopeid 0x20<link>
            ether 42:01:0a:00:01:02 txqueuelen 1000 (Ethernet)
            RX packets 1003 bytes 195051 (190.4 KiB)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 837 bytes 93201 (91.0 KiB)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
        inet6 ::1 prefixlen 128 scopeid 0x10<host>
            loop txqueuelen 1000 (Local Loopback)
            RX packets 0 bytes 0 (0.0 B)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 0 bytes 0 (0.0 B)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

g96aayu@prod-instance~ - Google Chrome
ssh.cloud.google.com/projects/prodproject-13242443/zones/asia-southeast1-b/instances/prod-instance?useAdminProxy=true&authUser=0&hl=en_US&projectNumber=170726174900

```

loop txqueuelen 1000  (Local Loopback)
RX packets 0 bytes 0 (0.0 B)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 0 bytes 0 (0.0 B)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[g96aayu@prod-instance ~]$ ping 10.0.1.2
PING 10.0.1.2 (10.0.1.2) 56(84) bytes of data.
64 bytes from 10.0.1.2: icmp_seq=1 ttl=64 time=0.035 ms
64 bytes from 10.0.1.2: icmp_seq=2 ttl=64 time=0.051 ms
64 bytes from 10.0.1.2: icmp_seq=3 ttl=64 time=0.055 ms
64 bytes from 10.0.1.2: icmp_seq=4 ttl=64 time=0.092 ms
^C
--- 10.0.1.2 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 2999ms
rtt min/avg/max/mdev = 0.035/0.058/0.092/0.021 ms
[g96aayu@prod-instance ~]$ ping 10.0.2.2
PING 10.0.2.2 (10.0.2.2) 56(84) bytes of data.
^C
--- 10.0.2.2 ping statistics ---
15 packets transmitted, 0 received, 100% packet loss, time 13999ms

[g96aayu@prod-instance ~]$ 
```

Type here to search

Cloud Shell | 34.87.116.62 | Incognito (2)

Google Cloud Platform | DevProject | SHOW INFO PANEL

VPC network details | EDIT | DELETE VPC NETWORK

Custom subnets

Dynamic routing mode: Regional

DNS server policy: None

Subnets | Static internal IP addresses | Firewall rules | Routes | VPC Network Peering | Private service connection

Add subnet | Flow logs

Name	Region	IP address ranges	Gateway	Private Google access	Flow logs
lab1	us-east1	10.0.2.0/24	10.0.2.1	Off	Off

Reserved subnets for internal HTTP(S) load balancers

Name	Region	IP address ranges	Gateway	Role
------	--------	-------------------	---------	------

The image displays two screenshots of the Google Cloud Platform (GCP) interface, specifically focusing on VPC Network Peering.

Screenshot 1: VPC Network Peering List

This screenshot shows the "VPC network peering" section of the GCP console. The left sidebar lists various network-related options: External IP addresses, Firewall, Routes, VPC network peering (which is selected), Shared VPC, Serverless VPC access, and Packet mirroring. The main content area is titled "VPC Network Peering" and contains a table with columns: Peered VPC network, Peered project ID, Status, and Exchange custom routes. There are no entries in the table.

Screenshot 2: VPC Network Peering Creation Interface

This screenshot shows the "VPC network peering" creation interface. The left sidebar is identical to the first screenshot. The main content area has a title "VPC network peering" and a descriptive text: "Cloud VPC Network Peering lets you privately connect two VPC networks, which can reduce latency, cost, and increase security. To get started click "Create connection". [Learn more](#)". Below this text are two buttons: "CREATE CONNECTION" and "LEARN MORE".

The screenshot shows the first step of the 'Create peering connection' wizard. The title bar says 'Create peering connection - VPC'. The main content area has a heading 'Create peering connection' with a back arrow. It lists requirements: 'You will need the following info.' followed by 'Learn more'. Below this is a numbered list: '1. The project ID (if you are connecting to a VPC network in another project)' and '2. The name of the VPC network you want to peer with'. A note states: 'Note: The subnet IP ranges in peered VPC networks cannot overlap.' At the bottom are 'CONTINUE' and 'CANCEL' buttons.

The screenshot shows the second step of the 'Create peering connection' wizard. The title bar says 'Create peering connection - VPC'. The main content area has a heading 'Create peering connection' with a back arrow. It shows a message: 'automatically created.' Below it is a 'Name *' field containing 'dev-peering', with a note: 'Lowercase letters, numbers, hyphens allowed'. There is a 'Your VPC network *' dropdown menu showing 'vpcdev'. Under 'Peered VPC network', there are two options: 'In project devproject-287318' (radio button not selected) and 'In another project' (radio button selected). Below this is a 'Project ID' field containing 'prodprojrct-13242443'. The status bar at the bottom shows 'ENG 2:31 AM IN 8/24/2020'.

Create peering connection – VPC

Cloud Shell

34.87.116.62

VPC networks – VPC network – P

Incognito (2)

New Tab Search | Gmail | YouTube | Maps | 29th APRIL - Google | YAMLLint - The YAM...

Untitled document...

Google Cloud Platform DevProject

Create peering connection

Peered VPC network

In project devproject-287318

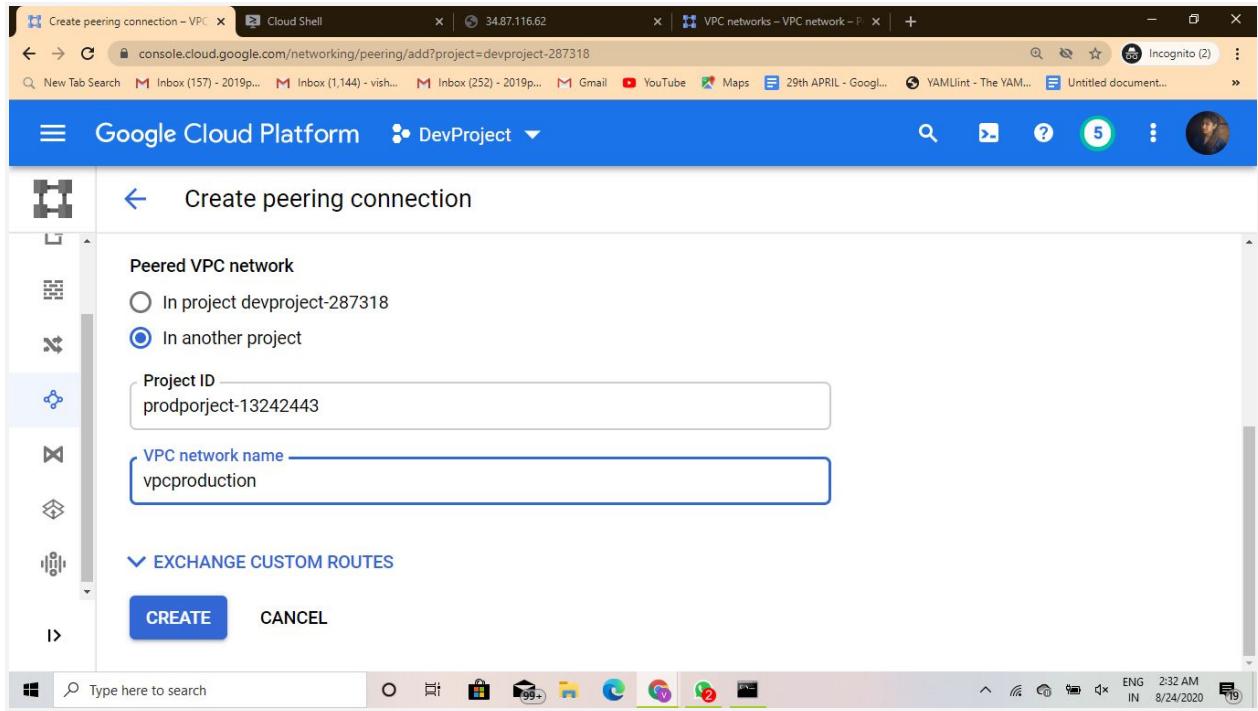
In another project

Project ID
prodporject-13242443

VPC network name
vpcproduction

EXCHANGE CUSTOM ROUTES

CREATE CANCEL



VPC network peering – VPC net

Cloud Shell

34.87.116.62

VPC networks – VPC network – P

Incognito (2)

New Tab Search | Gmail | YouTube | Maps | 29th APRIL - Google | YAMLLint - The YAM...

Untitled document...

Google Cloud Platform DevProject

VPC network peering

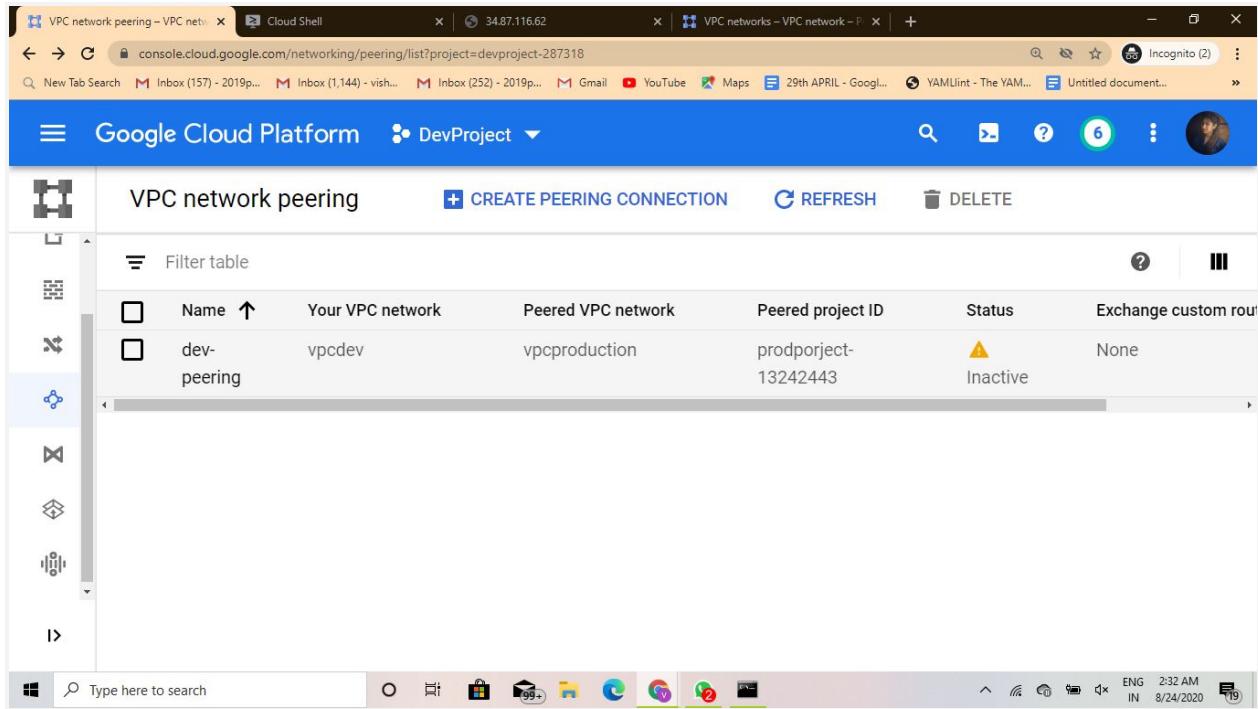
+ CREATE PEERING CONNECTION

REFRESH

DELETE

Filter table

Name	Your VPC network	Peered VPC network	Peered project ID	Status	Exchange custom routes
dev-peering	vpcdev	vpcproduction	prodporject-13242443	Inactive	None



Google Cloud Platform

ProdProject

VPC network peering

CREATE PEERING CONNECTION

REFRESH

DELETE

Filter table

Name	Your VPC network	Peered VPC network	Peered project ID	Status	Exchange custom routes
prodpeering	vpcproduction	vpcdev	devproject-287318	Active	None

Type here to search

The screenshot shows the Google Cloud Platform interface for managing VPC network peering. The main title is "VPC network peering". Below it, there's a "CREATE PEERING CONNECTION" button, a "REFRESH" button, and a "DELETE" button. On the left, there's a sidebar with various icons. The main content area displays a table with the following data:

Name	Your VPC network	Peered VPC network	Peered project ID	Status	Exchange custom routes
prodpeering	vpcproduction	vpcdev	devproject-287318	Active	None

At the bottom, there's a search bar and a taskbar with several icons.

The screenshot shows a Windows desktop environment with three main windows:

- Terminal Window:** A terminal window titled "g96aayu@prod-instance~ - Google Chrome" showing command-line output. It includes two "ping" commands to 10.0.2.2, one from the terminal and one from a Cloud Shell tab.
- Cloud Shell Tab:** A tab in the browser titled "VPC network peering - VPC net..." showing the list of peering connections for project "devproject-287318".
- Google Cloud Platform Tab:** A tab titled "VPC network peering" showing the details of a peering connection named "dev-peering" between "vpcdev" and "vpcproduction".

Terminal Output (SSH Session):

```
[g96aayu@prod-instance ~]$ ping 10.0.2.2
PING 10.0.2.2 (10.0.2.2) 56(84) bytes of data.
^C
--- 10.0.2.2 ping statistics ---
15 packets transmitted, 0 received, 100% packet loss, time 13999ms

[g96aayu@prod-instance ~]$ ping 10.0.2.2
PING 10.0.2.2 (10.0.2.2) 56(84) bytes of data.
64 bytes from 10.0.2.2: icmp_seq=1 ttl=64 time=222 ms
64 bytes from 10.0.2.2: icmp_seq=2 ttl=64 time=221 ms
64 bytes from 10.0.2.2: icmp_seq=3 ttl=64 time=221 ms
64 bytes from 10.0.2.2: icmp_seq=4 ttl=64 time=221 ms
64 bytes from 10.0.2.2: icmp_seq=5 ttl=64 time=221 ms
64 bytes from 10.0.2.2: icmp_seq=6 ttl=64 time=221 ms
64 bytes from 10.0.2.2: icmp_seq=7 ttl=64 time=221 ms
64 bytes from 10.0.2.2: icmp_seq=8 ttl=64 time=221 ms
64 bytes from 10.0.2.2: icmp_seq=9 ttl=64 time=221 ms
64 bytes from 10.0.2.2: icmp_seq=10 ttl=64 time=221 ms
64 bytes from 10.0.2.2: icmp_seq=11 ttl=64 time=221 ms
64 bytes from 10.0.2.2: icmp_seq=12 ttl=64 time=221 ms
64 bytes from 10.0.2.2: icmp_seq=13 ttl=64 time=221 ms
64 bytes from 10.0.2.2: icmp_seq=14 ttl=64 time=221 ms
```

Cloud Shell Tab Content:

```
< → ⚡ 🔒 console.cloud.google.com/networking/peering/list?project=devproject-287318
Cloud Shell | 34.87.116.62 | VPC network peering - VPC net... | +
```

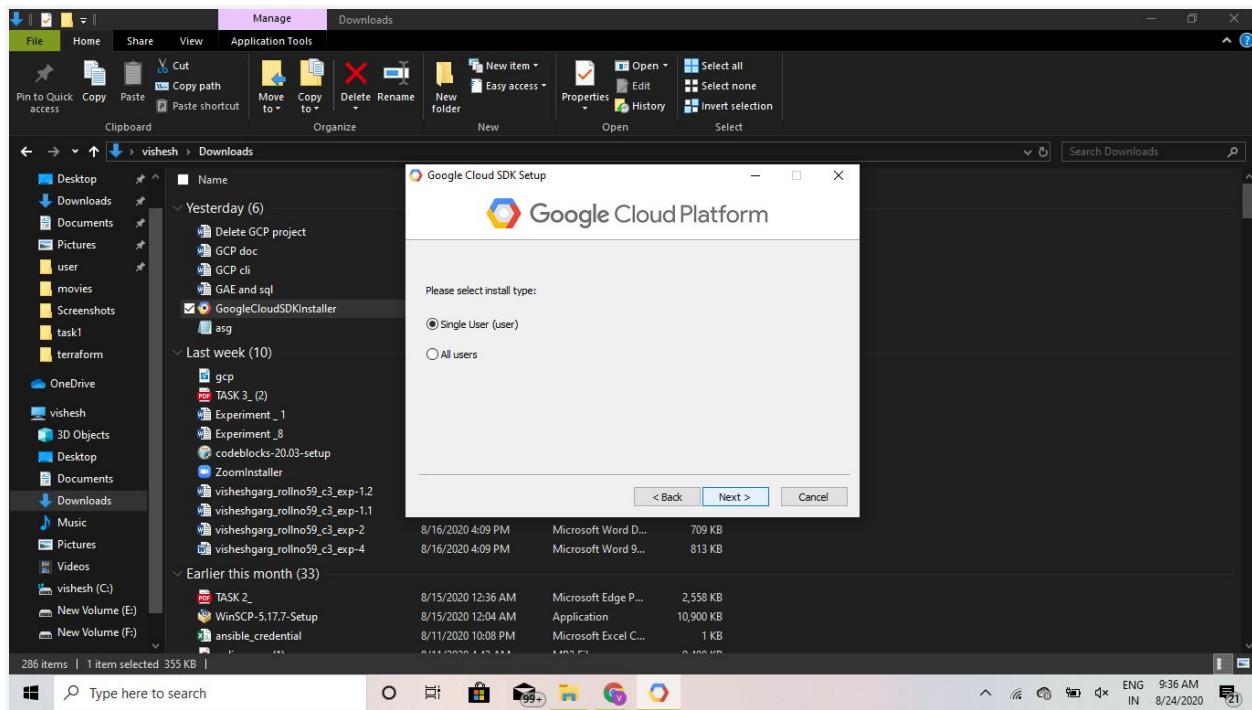
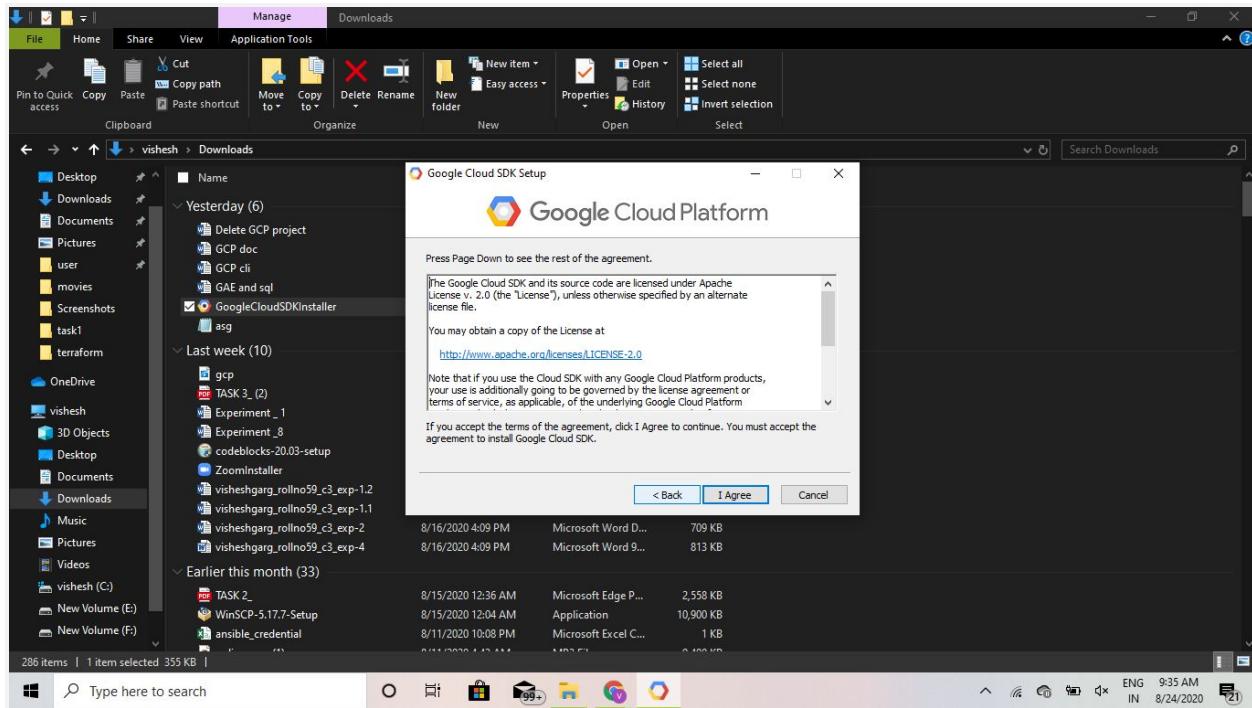
Google Cloud Platform Tab Content:

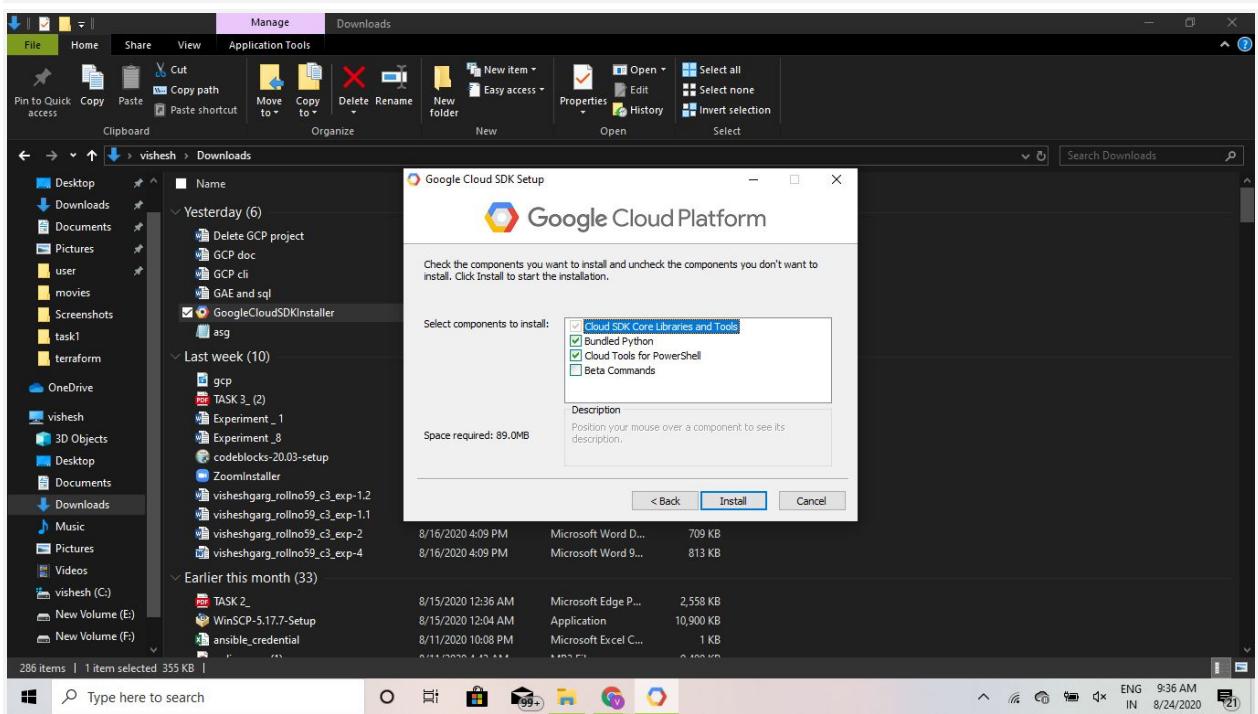
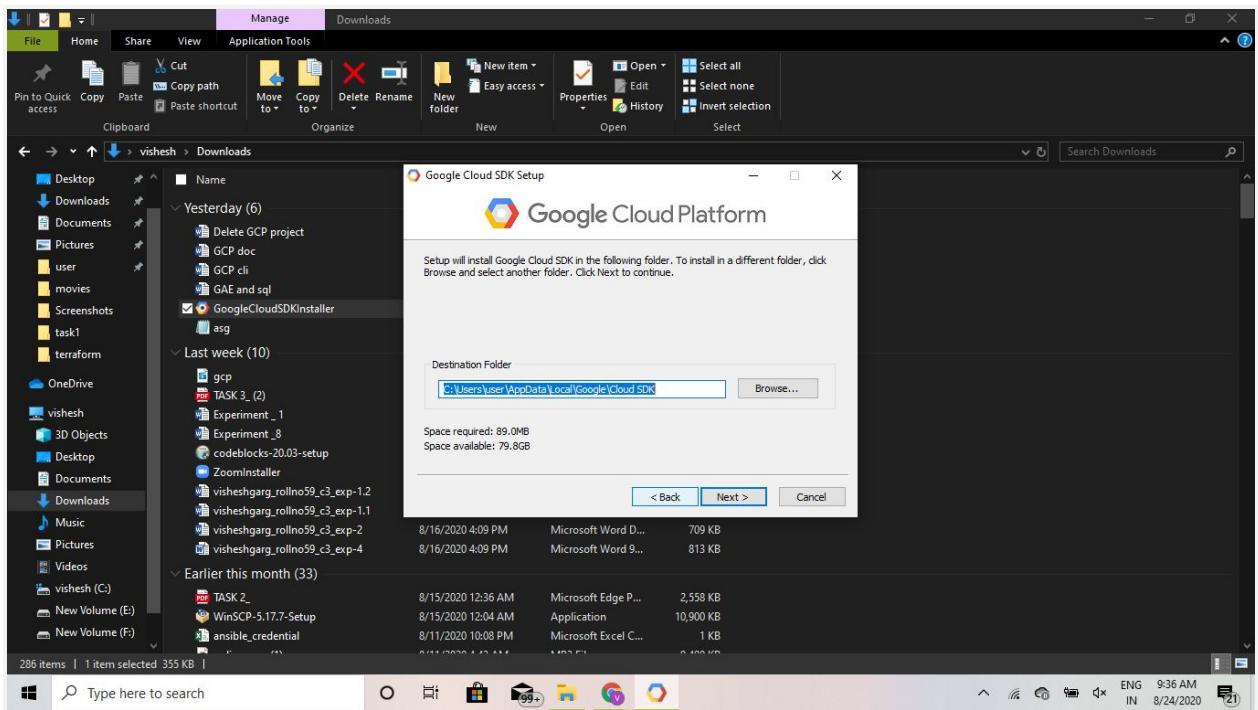
```
☰ Google Cloud Platform DevProject 🔍 7 ⓘ ⋮
```

VPC network peering					
		+ CREATE PEERING CONNECTION		REFRESH	DELETE
Filter table					
Name	Your VPC network	Peered VPC network	Peered project ID	Status	Exchange custom routes
dev-peering	vpcdev	vpcproduction	prodproject-13242443	Active	None

Day 2:

Google kubernetes engine





```
C:\Windows\SYSTEM32\cmd.exe - gcloud init
Network diagnostic passed (1/1 checks passed).

You must log in to continue. Would you like to log in (Y/n)? Y
Your browser has been opened to visit:

https://accounts.google.com/o/oauth2/auth?client_id=32555940559.apps.googleusercontent.com&redirect_uri=http%3A%2F%2Flocalhost%3A8085%2F&scope=openid+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fuserinfo_email+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcloud-platform+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcompute+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Faccounts.reauth&code_challenge=N7Te_wlaFED71QUvBSi8BsrwJyWoyI973u1S6yX2i8&code_challenge_method=S256&access_type=offline&response_type=code&prompt=select_account

You are logged in as: [96aayu@gmail.com].
```

Pick cloud project to use:
[1] devproject-287318
[2] groovy-ward-287313
[3] lunar-campaign-287313
[4] prodporject-13242443
[5] Create a new project
Please enter numeric choice or text value (must exactly match list item):



```
Select C:\Windows\system32\cmd.exe
      rules.
services          List, enable and disable APIs and services.

Anthos CLI
anthos          Anthos command Group.

CI/CD
scheduler       Manage Cloud Scheduler jobs and schedules.
tasks           Manage Cloud Tasks queues and tasks.

Compute
app            Manage your App Engine deployments.
```

```
C:\Users\user>gcloud projects list
PROJECT_ID        NAME          PROJECT_NUMBER
devproject-287318  DevProject   381790864413
groovy-ward-287313 My First Project 497392490371
lunar-campaign-287313 My First Project 212014526950
prodporject-13242443 ProdProject 170726174900
```

```
C:\Users\user>
```



```
C:\Users\user>gcloud projects list
PROJECT_ID           NAME          PROJECT_NUMBER
groovy-ward-287313  My First Project  497392490371
lunar-campaign-287313  My First Project  212014526950

C:\Users\user>gcloud compute instances list
ERROR: (gcloud.compute.instances.list) The required property [project] is not currently set.
You may set it for your current workspace by running:

$ gcloud config set project VALUE

or it can be set temporarily by the environment variable [CLOUDSDK_CORE_PROJECT]

C:\Users\user>
C:\Users\user>gcloud compute instances create
ERROR: (gcloud.compute.instances.create) argument INSTANCE_NAMES [INSTANCE_NAMES ...]: Must be specified.
Usage: gcloud compute instances create INSTANCE_NAMES [INSTANCE_NAMES ...] [optional flags]
      optional flags may be --accelerator | --address | --no-address | --async |
                           --boot-disk-auto-delete | --boot-disk-device-name |
                           --boot-disk-kms-key | --boot-disk-kms-keyring |
                           --boot-disk-kms-location | --boot-disk-kms-project |
                           --boot-disk-size | --boot-disk-type |
```

```
Type here to search  O  Windows  Google Photos  Microsoft Edge  File Explorer  Task View  ENG 10:05 AM IN 8/24/2020 21

Select C:\Windows\SYSTEM32\cmd.exe
Your browser has been opened to visit:

https://accounts.google.com/o/oauth2/auth?client_id=32555940559.apps.googleusercontent.com&redirect_uri=http%3A%2F%2Flocalhost%3A8085%2F&scope=openid+https%3A%2Fwww.googleapis.com%2Fauth%2Fuserinfo.email+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcloud-platform+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fappengine.admin+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcompute+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Faccounts.reauth&code_challenge=N7T_e_wlaFED71QUvBSi8BsrwJyWoyI973ulS6yX2i8&code_challenge_method=S256&access_type=offline&response_type=code&prompt=select_account

You are logged in as: [96aayu@gmail.com].

Pick cloud project to use:
[1] devproject-287318
[2] groovy-ward-287313
[3] lunar-campaign-287313
[4] prodporject-13242443
[5] Create a new project
Please enter numeric choice or text value (must exactly match list item): 3

Your current project has been set to: [lunar-campaign-287313].
Not setting default zone/region (this feature makes it easier to use

Type here to search  O  Windows  Google Photos  Microsoft Edge  File Explorer  Task View  ENG 10:14 AM IN 8/24/2020 21
```

```
cmd Select C:\Windows\system32\cmd.exe
[37] europe-west3-a
[38] europe-west3-b
[39] europe-west3-c
[40] europe-west4-a
[41] europe-west4-b
[42] europe-west4-c
[43] europe-west6-a
[44] europe-west6-b
[45] europe-west6-c
[46] northamerica-northeast1-a
[47] northamerica-northeast1-b
[48] northamerica-northeast1-c
[49] southamerica-east1-a
[50] southamerica-east1-b
Did not print [23] options.
Too many options [73]. Enter "list" at prompt to print choices fully.
Please enter your numeric choice: 19

Created [https://www.googleapis.com/compute/v1/projects/lunar-campaign-287313/zones/asia-southeast1-a/instances/os1].
NAME ZONE MACHINE_TYPE PREEMPTIBLE INTERNAL_IP EXTERNAL_IP STATUS
os1 asia-southeast1-a n1-standard-1 10.148.0.2 34.87.189.157 RUNNING
```

```
C:\Users\user>
cmd Select C:\Windows\system32\cmd.exe - gcloud compute ssh os1
os1 asia-southeast1-a n1-standard-1 10.148.0.2 34.87.189.157 RUNNING

C:\Users\user>gcloud compute ssh os1
WARNING: The private SSH key file for gcloud does not exist.
WARNING: The public SSH key file for gcloud does not exist.
WARNING: The PuTTY PPK 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.
No zone specified. Using zone [asia-southeast1-a] for instance: [os1].
Updating project ssh metadata...\\Updated [https://www.googleapis.com/compute/v1/projects/lunar-campaign-287313].
Updating project ssh metadata...done.
Waiting for SSH key to propagate.
The server's host key is not cached in the registry. You
have no guarantee that the server is the computer you
think it is.
The server's ssh-ed25519 key fingerprint is:
ssh-ed25519 255 e2:1a:d8:c0:a5:e5:31:49:74:36:b4:95:75:7b:2d:e6
If you trust this host, enter "y" to add the key to
PUTTY's cache and carry on connecting.
If you want to carry on connecting just once, without
adding the key to the cache, enter "n".
If you do not trust this host, press Return to abandon the
connection.
Store key in cache? (y/n) _
```

New Project – Google Cloud Platform

console.cloud.google.com/projectcreate?previousPage=%2Fapis%2Flibrary%2Fcompute.googleapis.com%3Ffilter%3Dcategory:compute%26id%3Da08439d8-80d6-43f1-af2e-6878251f018d&project=visheshproject-978479

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Google Cloud Platform

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New Project

You have 8 projects remaining in your quota. Request an increase or delete projects. [Learn more](#)

[MANAGE QUOTAS](#)

Project name *

Project ID * [C](#)

Project ID can have lowercase letters, digits, or hyphens. It must start with a lowercase letter and end with a letter or number.

Location * [BROWSE](#)

Parent organization or folder

[CREATE](#) [CANCEL](#)

Type here to search

API Compute Engine API – APIs & Services

console.cloud.google.com/apis/library/compute.googleapis.com?filter=category:compute&id=a08439d8-80d6-43f1-af2e-6878251f018d&project=visheshproject-978479

Incognito

New Tab Search | Inbox (157) - 2019p... | Inbox (1,144) - vish... | Inbox (252) - 2019p... | Gmail | YouTube | Maps | 29th APRIL - Googl... | YAMLint - The YAM... | Untitled document...

Google Cloud Platform

VisheshProject

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- Compute Engine [TRY THIS API](#) [API Enabled](#)
- Kubernetes Engine
- Cloud Functions
- Cloud Run
- VMware Engine

STORAGE

- Bigtable
- Datastore

Engine API

Clusters

Workloads

Services & Ingress

Applications

Configuration

Storage

Object Browser

Migrate to containers and make it

Additional details

Type: APIs & services

Last updated: 12/10/19

Category: Compute, Networking

Service name: compute.googleapis.com

<https://console.cloud.google.com/kubernetes?cloudshell=false&project=visheshproject-978479&supportedpurview=project>

Type here to search

Create a Kubernetes cluster - Google Cloud Platform

console.cloud.google.com/kubernetes/add?project=visheshproject-978479&cloudshell=false&supportedpurview=project

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Create a Kubernetes cluster ADD NODE POOL REMOVE NODE POOL

To experiment with an affordable cluster, try My first cluster in the Cluster set-up guides

Name: cluster-1

Location type: Zonal (selected)

Zone: us-central1-c

Specify default node locations (checkbox): Current default: us-central1-c

CREATE CANCEL Equivalent REST or command line

Type here to search

Create a Kubernetes cluster - Google Cloud Platform

console.cloud.google.com/kubernetes/add?project=visheshproject-978479&cloudshell=false&supportedpurview=project

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Create a Kubernetes cluster ADD NODE POOL REMOVE NODE POOL

groups of nodes created in this cluster. More node pools can be added and removed after cluster creation.

Name: default-pool

Node version: 1.15.12-gke.2 (master version)

Size: Number of nodes * 1

Pod address range limits the maximum size of the cluster. [Learn more](#)

Enable autoscaling (checkbox)

CREATE CANCEL Equivalent REST or command line

Type here to search

Create a Kubernetes cluster - K... +

console.cloud.google.com/kubernetes/add?project=visheshproject-978479&cloudshell=false&supportedpurview=project

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Create a Kubernetes cluster ADD NODE POOL REMOVE NODE POOL

Cluster basics

NODE POOLS

- default-pool
 - Nodes
 - Security
 - Metadata

CLUSTER

- Automation
- Networking

Nodes

These node settings will be used when new nodes are created using this node pool.

Image type

- Container-Optimized OS (cos) (default)
cos provides better security and performance, but has limitations that may affect some users
- cloud_ml
- cloud_ml_gcl
- Container-Optimized OS with Containerd (cos_containerd)
cos_containerd is a variant of the Container-Optimized OS image with containerd as the main container runtime directly integrated with Kubernetes.
- Ubuntu

Type here to search ENG IN 11:00 AM 8/24/2020

Create a Kubernetes cluster - K... +

console.cloud.google.com/kubernetes/add?project=visheshproject-978479&cloudshell=false&supportedpurview=project

New Tab Search Gmail YouTube Maps 29th APRIL - Google Sheets YAMLLint - The YAM...

Incognito

Google Cloud Platform VisheshProject Search products and resources

Create a Kubernetes cluster ADD NODE POOL REMOVE NODE POOL

Cluster basics

NODE POOLS

- default-pool
 - Nodes
 - Security
 - Metadata

CLUSTER

- Automation
- Networking

Machine types for common workloads, optimized for cost and flexibility

Series N1

Powered by Intel Skylake CPU platform or one of its predecessors

Machine type n1-standard-1 (1 vCPU, 3.75 GB memory)

	vCPU	Memory
	1	3.75 GB

CPU PLATFORM AND GPU

Boot disk type Standard persistent disk

CREATE CANCEL Equivalent REST or command line

Type here to search ENG IN 11:00 AM 8/24/2020

The screenshot shows the 'Create a Kubernetes cluster' page in the Google Cloud Platform. On the left, a sidebar lists 'Cluster basics', 'NODE POOLS' (with 'default-pool' expanded to show 'Nodes', 'Security', and 'Metadata'), and 'CLUSTER' (with 'Automation' and 'Networking'). The main area is titled 'CPU PLATFORM AND GPU'. It includes fields for 'Boot disk type' (set to 'Standard persistent disk'), 'Boot disk size (GB)' (set to 100), and checkboxes for 'Enable customer-managed encryption for boot disk' and 'Enable preemptible nodes'. Below these are sections for 'Local SSD disks' and 'Networking'. At the bottom are 'CREATE' and 'CANCEL' buttons, and a note about equivalent REST or command line.

Zone: like in mumbai(region) we have 3 zones

All slave will launch in one zone that is zonal

Region: all slave will be spread equal in region

The screenshot shows the 'Create a Kubernetes cluster' page. The sidebar is identical to the previous screenshot. In the main area, under 'Master version', there is a note about choosing a release channel or static version. A radio button for 'Static version' is selected, and the dropdown shows '1.15.12-gke.2 (default)'. At the bottom are 'CREATE' and 'CANCEL' buttons, and a note about equivalent REST or command line.

they will launch 3 nodes for us in 3 different zones

```

gcloud beta container --project "visheshproject-978479" clusters create
"cluster-1" --region "asia-southeast1" --no-enable-basic-auth --cluster-version
"1.15.12-gke.2" --machine-type "n1-standard-1" --image-type "COS" --disk-type
"pd-standard" --disk-size "100" --metadata disable-legacy-endpoints=true
--scopes
"https://www.googleapis.com/auth/devstorage.read_only","https://www.googleapis.com/auth/logging.write","https://www.googleapis.com/auth/monitoring","https://www.googleapis.com/auth/servicecontrol","https://www.googleapis.com/auth/service.management.readonly","https://www.googleapis.com/auth/trace.append"
--num-nodes "1" --enable-stackdriver-kubernetes --enable-ip-alias --network
"projects/visheshproject-978479/global/networks/default" --subnetwork
"projects/visheshproject-978479/regions/asia-southeast1/subnetworks/default"
--default-max-pods-per-node "110" --no-enable-master-authorized-networks
--addons HorizontalPodAutoscaling,HttpLoadBalancing --enable-autoupgrade
--enable-autorepair --max-surge-upgrade 1 --max-unavailable-upgrade 0
--node-locations "asia-southeast1-a","asia-southeast1-b","asia-southeast1-c"

```

The screenshot shows the Google Cloud Platform interface for managing Kubernetes clusters. The URL in the browser is `console.cloud.google.com/kubernetes/list?project=visheshproject-978479&cloudshell=false&supportedpurview=project`. The page title is "Google Cloud Platform" and the project is "VisheshProject". The main content area is titled "Kubernetes clusters" and includes a "CREATE CLUSTER" button. A table lists the existing cluster "cluster-1" with details: Location: asia-southeast1, Cluster size: 3, Total cores: 3 vCPUs, Total memory: 11.25 GB. There are "REFRESH", "DELETE", "SHOW INFO PANEL", and "LEARN" buttons above the table. A sidebar on the left contains various navigation icons. The taskbar at the bottom shows the Windows Start button, a search bar, and several pinned application icons.

Name	Location	Cluster size	Total cores	Total memory	Notifications	Labels
cluster-1	asia-southeast1	3	3 vCPUs	11.25 GB		

```

curl -LO
https://storage.googleapis.com/kubernetes-release/release/v1.18.0/bin/windows/amd64/kubectl.exe

```

<https://kubernetes.io/docs/tasks/tools/install-kubectl/>

```
Select C:\Windows\system32\cmd.exe
have no guarantee that the server is the computer you
think it is.
The server's ssh-ed25519 key fingerprint is:
ssh-ed25519 255 e2:1a:d8:c0:a5:e5:31:49:74:36:b4:95:75:7b:2d:e6
If you trust this host, enter "y" to add the key to
PUTTY's cache and carry on connecting.
If you want to carry on connecting just once, without
adding the key to the cache, enter "n".
If you do not trust this host, press Return to abandon the
connection.
Store key in cache? (y/n)
C:\Users\user>
C:\Users\user>curl -LO https://storage.googleapis.com/kubernetes-release/release/v1.18.0/bin/windows/amd64/kubectl.exe
% Total    % Received % Xferd  Average Speed   Time     Time      Time  Current
          Dload  Upload   Total   Spent   Left  Speed
100 42.4M  100 42.4M    0     0  606k      0  0:01:11  0:01:11  --:--:-- 1833k

C:\Users\user>
C:\Users\user>kubectl.exe
kubectl controls the Kubernetes cluster manager.
```

Find more information at: <https://kubernetes.io/docs/reference/kubectl/overview/>

Basic Commands (Beginner):



A screenshot of a Google Chrome browser window displaying the Google Cloud Platform interface. The main page shows a cluster configuration. A modal dialog box is open in the center, titled "Connect to the cluster". It contains two sections: "Command-line access" and "Cloud Console dashboard". The "Command-line access" section provides a command-line instruction: "\$ gcloud container clusters get-credentials cluster-1 --region asia-southeast1 --project visheshproject-978479" with a "Copy" button. Below this is a "Run in Cloud Shell" button. The "Cloud Console dashboard" section instructs the user to view workloads in the "Workloads dashboard" and includes a "Open Workloads dashboard" button. At the bottom right of the modal is an "OK" button. The background of the browser shows a pinned tab for "Install and Set Up kubectl | Kube" and a list of other browser tabs.

```
gcloud container clusters get-credentials cluster-1 --region asia-southeast1 --project visheshproject-978479
```

```
cmd Select C:\Windows\system32\cmd.exe
Use "kubectl <command> --help" for more information about a given command.
Use "kubectl options" for a list of global command-line options (applies to all commands).

C:\Users\user>gcloud container clusters get-credentials cluster-1 --region asia-southeast1 --project vi
sheshproject-978479
Fetching cluster endpoint and auth data.
kubeconfig entry generated for cluster-1.

C:\Users\user>kubectl.exe get pods
No resources found in default namespace.

C:\Users\user>kubectl.exe get nodes
NAME STATUS ROLES AGE VERSION
gke-cluster-1-default-pool-38e4e287-bc2w Ready <none> 9m55s v1.15.12-gke.2
gke-cluster-1-default-pool-8c0f48ee-9v4z Ready <none> 9m55s v1.15.12-gke.2
gke-cluster-1-default-pool-ed529462-vpzs Ready <none> 9m55s v1.15.12-gke.2

C:\Users\user>kubectl.exe run myos1 --image=vimal13/apache-webserver-php
pod/myos1 created

C:\Users\user>kubectl.exe get pods
NAME READY STATUS RESTARTS AGE
myos1 0/1 ContainerCreating 0 5s

C:\Users\user>
cmd Select C:\Windows\system32\cmd.exe
C:\Users\user>kubectl.exe delete pods \
Error from server (NotFound): pods "\\" not found

C:\Users\user>kubectl.exe delete pod myos1
pod "myos1" deleted

C:\Users\user>kubectl.exe get pods
No resources found in default namespace.

C:\Users\user>kubectl create deployment myweb --image=vimal13/apache-webserver-php
deployment.apps/myweb created

C:\Users\user>kubectl get all
NAME READY STATUS RESTARTS AGE
pod/myweb-5c58879c65-hvrlg 0/1 ContainerCreating 0 4s

NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
service/kubernetes ClusterIP 10.91.0.1 <none> 443/TCP 19m

NAME READY UP-TO-DATE AVAILABLE AGE
deployment.apps/myweb 0/1 1 0 4s

NAME DESIRED CURRENT READY AGE
replicaset.apps/myweb-5c58879c65 1 1 0 5s
```

```
C:\Users\user>kubectl.exe get deployments
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
myweb     1/1       1           1           3m14s

C:\Users\user>kubectl.exe get pods
NAME                  READY   STATUS    RESTARTS   AGE
myweb-5c58879c65-7c2bb   1/1     Running   0          2m20s

C:\Users\user>
C:\Users\user>kubectl.exe scale deployment myweb --replicas=5
deployment.extensions/myweb scaled

C:\Users\user>kubectl.exe get pods
NAME                  READY   STATUS    RESTARTS   AGE
myweb-5c58879c65-7c2bb   1/1     Running   0          2m45s
myweb-5c58879c65-m9rf1   0/1     ContainerCreating   0          2s
myweb-5c58879c65-mknnx   0/1     ContainerCreating   0          2s
myweb-5c58879c65-sfzg4   0/1     ContainerCreating   0          2s
myweb-5c58879c65-wb8pm   0/1     ContainerCreating   0          2s

C:\Users\user>kubectl.exe get deployments
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
myweb     2/5       5           2           3m49s
```

```
 Type here to search ENG 11:32 AM IN 8/24/2020 20

C:\Users\user>kubectl.exe get deployments
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
myweb     2/5       5           2           3m49s

C:\Users\user>kubectl.exe get pods -o wide
NAME                  READY   STATUS    RESTARTS   AGE   IP           NODE
                   NOMINATED NODE   READINESS GATES
myweb-5c58879c65-7c2bb   1/1     Running   0          3m16s   10.24.0.9   gke-cluster-1-default-pool-8
c0f48ee-9v4z   <none>    <none>
myweb-5c58879c65-m9rf1   1/1     Running   0          33s    10.24.1.6   gke-cluster-1-default-pool-3
8e4e287-bc2w   <none>    <none>
myweb-5c58879c65-mknnx   1/1     Running   0          33s    10.24.1.7   gke-cluster-1-default-pool-3
8e4e287-bc2w   <none>    <none>
myweb-5c58879c65-sfzg4   1/1     Running   0          33s    10.24.2.5   gke-cluster-1-default-pool-e
d529462-vpzs   <none>    <none>
myweb-5c58879c65-wb8pm   1/1     Running   0          33s    10.24.0.10  gke-cluster-1-default-pool-8
c0f48ee-9v4z   <none>    <none>

C:\Users\user>kubectl.exe get nodes
NAME               STATUS   ROLES   AGE   VERSION
gke-cluster-1-default-pool-38e4e287-bc2w Ready   <none>   23m   v1.15.12-gke.2
gke-cluster-1-default-pool-8c0f48ee-9v4z Ready   <none>   23m   v1.15.12-gke.2
gke-cluster-1-default-pool-ed529462-vpzs Ready   <none>   23m   v1.15.12-gke.2

C:\Users\user>
```

Google Cloud Platform | Install and Set Up kubectl | Kube... | +

console.cloud.google.com/kubernetes/clusters/details/asia-southeast1/cluster-1?project=visheshproject-978479&cloudshell=false&supportedpurview=proj...

New Tab Search | Inbox (157) - 2019p... | Inbox (1,144) - vish... | Inbox (252) - 2019p... | Gmail | YouTube | Maps | 29th APRIL - Google... | YAMLint - The YAM...

Incognito | 4 | ...

Google Cloud Platform | VisheshProject | Search products and resources

Home | EDIT | DELETE | ADD NODE POOL | DEPLOY | CONNECT | DUPLICATE

Compute Engine | Load balancing | Cloud DNS | Edit release channel | Upgrade available | Renew cluster certificate

PRODUCTS ▾

NETWORKING

VPC network | Load balancing

Network services | Cloud CDN

Hybrid Connectivity | Cloud NAT

Network Service Tiers | Traffic Director

Network Security | Service Directory

Network Intelligence | outheast1

outeast1-a
outeast1-b
outeast1-c

0.0/14

<https://console.cloud.google.com/net-services/loadbalancing/list?cloudshell=false>

Type here to search

Select C:\Windows\system32\cmd.exe

```
C:\Users\user>kubectl get services
NAME           TYPE      CLUSTER-IP   EXTERNAL-IP   PORT(S)    AGE
kubernetes     ClusterIP  10.91.0.1   <none>        443/TCP   29m

C:\Users\user>kubectl.exe expose deployment myweb --type=LoadBalancer --port=80
service/myweb exposed

C:\Users\user>kubectl.exe get all
NAME                           READY   STATUS    RESTARTS   AGE
pod/myweb-5c58879c65-7c2bb   1/1     Running   0          11m
pod/myweb-5c58879c65-m9rfl   1/1     Running   0          8m17s
pod/myweb-5c58879c65-mknxn   1/1     Running   0          8m17s
pod/myweb-5c58879c65-sfzg4   1/1     Running   0          8m17s
pod/myweb-5c58879c65-wb8pm   1/1     Running   0          8m17s

NAME           TYPE      CLUSTER-IP   EXTERNAL-IP   PORT(S)    AGE
service/kubernetes   ClusterIP  10.91.0.1   <none>        443/TCP   31m
service/myweb     LoadBalancer  10.91.3.218  <pending>     80:30301/TCP  10s

NAME           READY   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/myweb  5/5       5           5           11m

NAME           DESIRED   CURRENT   READY   AGE
replicaset.apps/myweb-5c58879c65  5         5         5       11m
```

Type here to search

The screenshot shows the Google Cloud Platform Load Balancing interface. The left sidebar has icons for Compute Engine, Cloud Functions, Cloud Storage, and Cloud Build. The main area is titled "Load balancing" with tabs for "Load balancers", "Backends", and "Frontends". A search bar at the top right says "Search products and resources". Below the tabs, there's a filter bar with checkboxes for "Name", "Protocol" (set to TCP), and "Region" (set to asia-southeast1). A single entry is listed: "a8ef60dfb15d549a4bdf11f74cadc512" with "TCP" protocol and "asia-southeast1" region, associated with "1 target pool (3 instances)". A note below says "To edit load balancing resources like forwarding rules and target proxies, go to the advanced menu.".

The screenshot shows a browser window displaying the output of a netstat -an command on a VM. The output lists network interfaces and their statistics:

```
Welcome to vimal web server for testingeth0: flags=4163 mtu 1460
    inet 10.24.1.7 netmask 255.255.255.0 broadcast 10.24.1.255
        ether 0e:8b:e9:67:d8:b0 txqueuelen 0 (Ethernet)
        RX packets 14 bytes 1643 (1.6 KiB)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 4 bytes 204 (204.0 B)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73 mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
        loop txqueuelen 1000 (Local Loopback)
        RX packets 0 bytes 0 (0.0 B)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 0 bytes 0 (0.0 B)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

Services & Ingress – Kubernetes | **Install and Set Up kubectl | Kube** | **35.240.166.42**

console.cloud.google.com/kubernetes/discovery?cloudshell=false&project=visheshproject-978479&supportedpurview=project&pageState={"savedViews":[]}

New Tab Search | Gmail | YouTube | Maps | 29th APRIL - Google Calendar | YAMLint - The YAML...

Google Cloud Platform | VisheshProject | Search products and resources

REFRESH | CREATE INGRESS | DELETE | BETA

Cluster | Namespace | RESET | SAVE

SERVICES **INGRESS**

Services are sets of Pods with a network endpoint that can be used for discovery and load balancing. Ingresses are collections of rules for routing external HTTP(S) traffic to Services.

Is system object : False Filter services and ingresses

Name	Status	Type	Endpoints	Pods	Namespace	Cluster
myweb	OK	External load balancer	35.240.166.42:80	5/5	default	cluster-1

Type here to search

Service details – Kubernetes Eng | **Install and Set Up kubectl | Kube** | **35.240.166.42**

console.cloud.google.com/kubernetes/service/asia-southeast1/cluster-1/default/myweb/overview?cloudshell=false&project=visheshproject-978479&supportedpurview=project&pageState={"savedViews":[]}

New Tab Search | Gmail | YouTube | Maps | 29th APRIL - Google Calendar | YAMLint - The YAML...

Google Cloud Platform | VisheshProject | Search products and resources

REFRESH | EDIT | DELETE | KUBECTL | SHOW INFO PANEL

OVERVIEW DETAILS EVENTS YAML

1 hour 6 hours 12 hours 1 day 2 days 4 days 7 days 14 days 30 days

CPU Memory Disk

Aug 24, 2020 11:02 AM Limit 9.03GB

Type here to search

Service details – Kubernetes Eng | Install and Set Up kubectl | Kube... | 35.240.166.42 | +

console.cloud.google.com/kubernetes/service/asia-southeast1/cluster-1/default/myweb/overview?cloudshell=false&project=visheshproject-978479&supportedpurview=project

Incognito

New Tab Search | Inbox (157) - 2019p... | Inbox (1,144) - vish... | Inbox (252) - 2019p... | Gmail | YouTube | Maps | 29th APRIL - Googl... | YAMLint - The YAM... | Untitled document...

Google Cloud Platform | VisheshProject | Search products and resources

REFRESH EDIT DELETE KUBECTL SHOW INFO PANEL

Home | Compute Engine | PRODUCTS ▾ | Firestore | Storage | SQL | Spanner | Memorystore | Data Transfer | SHOW INFO PANEL

EVENTS | YAML | 1 hour | 6 hours | 12 hours | 1 day | 2 days | 4 days | 7 days | 14 days | 30 days

Memory Disk

Memory	Disk
64MB	10GiB
48MB	8GiB
32MB	6GiB
16MB	4GiB
8MB	2GiB

0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1

DATABASES

https://console.cloud.google.com/sql?cloudshell=false&project=visheshproject-978479&supportedpurview=project

Type here to search ENG 12:04 PM IN 8/24/2020

This screenshot shows the 'Create an instance' page for Google Cloud SQL. The top navigation bar includes tabs for Home, Compute Engine, and various Google services like Gmail and YouTube. The main content area is titled 'Create an instance' under the 'SQL' category. It displays three options: MySQL, PostgreSQL, and SQL Server, each with its respective icon and version information. A link to 'Learn more' about the engines is provided at the bottom.

Create an instance – SQL – VisheshProject | Install and Set Up kubectl | Kube... | 35.240.166.42 | +

console.cloud.google.com/sql/choose-instance-engine?cloudshell=false&project=visheshproject-978479&supportedpurview=project

Incognito

New Tab Search | Inbox (157) - 2019p... | Inbox (1,144) - vish... | Inbox (252) - 2019p... | Gmail | YouTube | Maps | 29th APRIL - Googl... | YAMLint - The YAM... | Untitled document...

Google Cloud Platform | VisheshProject | Search products and resources

SQL | Create an instance

Choose your database engine

MySQL PostgreSQL SQL Server

Versions: 5.6, 5.7 Versions: 9.6, 10, 11, 12 Versions: 2017

Choose MySQL Choose PostgreSQL Choose SQL Server

Want more context on the Cloud SQL database engines? [Learn more](#)

https://console.cloud.google.com/sql/create-instance-mysql?cloudshell=false&project=visheshproject-978479&supportedpurview=project

Type here to search ENG 12:12 PM IN 8/24/2020

This screenshot continues the 'Create an instance' process for Google Cloud SQL. It shows the selection of the MySQL engine. The MySQL section is highlighted with a light gray background, while PostgreSQL and SQL Server are shown below it. The MySQL section includes a note about versions (5.6, 5.7) and a 'Choose MySQL' button. A general note at the bottom encourages users to learn more about the engines. The browser's address bar and taskbar are visible at the bottom.

The screenshot shows a Google Cloud Platform interface for creating a MySQL instance. The browser tab is titled "Create MySQL instance - VisheshProject". The URL is "console.cloud.google.com/sql/create-instance-mysql?cloudshell=false&project=visheshproject-978479&supportedpurview=project". The search bar at the top right contains "35.240.166.42". The main navigation bar includes "Google Cloud Platform", "VisheshProject", and a search bar for "Search products and resources". Below the navigation is a "SQL" icon and a link to "Create a MySQL instance".

Instance info

Instance ID
Choice is permanent. Use lowercase letters, numbers, and hyphens. Start with a letter.
mydbos

Root password
Set a password for the root user. [Learn more](#)
redhat No password

Location ⓘ
For better performance, keep your data close to the services that need it.

Region Choice is permanent **Zone** Can be changed at any time
asia-southeast1 (Singapore) Any

Root password
Set a password for the root user. [Learn more](#)
redhat No password

Location ⓘ
For better performance, keep your data close to the services that need it.

Region Choice is permanent **Zone** Can be changed at any time
asia-southeast1 (Singapore) asia-southeast1-a

Database version
MySQL 5.7

This screenshot shows the Google Cloud Platform SQL Overview page for a database instance named 'mydbos'. The instance is part of the 'VisheshProject' project. The interface includes a sidebar with navigation icons, a top bar with tabs like Overview, Edit, Import, Export, Restart, Stop, Delete, and Clone, and a search bar. The main content area is divided into several sections: 'Connect to this instance' (with a connection name input field containing 'visheshproject-978479:asia-southeast1:mydbos'), 'Configuration' (showing 1 vCPU, 3.75 GB Memory, and 10 GB SSD storage), 'Suggested actions' (listing MySQL 5.7 version, auto storage increase, automated backups, and point-in-time recovery), and 'Operations and logs' (showing a log entry from Aug 24, 2020, at 12:13:54 PM indicating the instance is being created). A status bar at the bottom shows the public IP address 35.240.166.42 and the current time as 12:14 PM on 8/24/2020.

This screenshot shows the same Google Cloud Platform SQL Overview page for the 'mydbos' instance, but with a different timestamp. The log entry in the 'Operations and logs' section now shows the creation time as Aug 24, 2020, at 12:13:54 PM, with the status 'Instance is being created'. The rest of the interface, including the configuration details and suggested actions, remains the same. The status bar at the bottom shows the public IP address 35.240.136.141 and the current time as 12:16 PM on 8/24/2020.

The screenshot shows a Windows desktop environment with two browser windows open and a taskbar at the bottom.

Top Browser Window:

- Address bar: `ssh.cloud.google.com/cloudshell/editor?hl=en_US&fromCloudShell=true&shellOnly=true#id=10_1598251487414&_gfid=10_1598251487414&parent=https://cons...`
- Content area:

```
Welcome to Cloud Shell! Type "help" to get started.  
Your Cloud Platform project in this session is set to visheshproject-978479.  
Use "gcloud config set project [PROJECT_ID]" to change to a different project.  
g96aayu@cloudshell:~ (visheshproject-978479)$ mysql -h 35.240.136.141 -u root -p  
Enter password:  
^C  
g96aayu@cloudshell:~ (visheshproject-978479)$ mysql -h 35.240.136.141 -u root -p  
Enter password:  
ERROR 2003 (HY000): Can't connect to MySQL server on '35.240.136.141' (110)  
g96aayu@cloudshell:~ (visheshproject-978479)$
```

Bottom Browser Window:

- Address bar: `console.cloud.google.com/sql/instances/mydbos/edit-performance-class?cloudshell=false&project=visheshproject-978479&supportedpurview=project`
- Content area:

Google Cloud Platform → VisheshProject → Search products and resources

Edit instance

any IPv4 client to pass the network firewall and make login attempts to your instance, including clients you did not intend to allow. Clients still need valid credentials to successfully log in to your instance.

Authorized networks
Authorize a network or use a Proxy to connect to your instance. Networks will only be authorized via these addresses. [Learn more](#)

New network

Name (Optional):

Network
Use CIDR notation. [Learn more](#)

Done Cancel

Taskbar:

- Type here to search
- Icons for various Windows applications like File Explorer, Task View, and Control Panel.
- System tray showing ENG IN 12:18 PM 8/24/2020 and a battery icon.

The screenshot shows the Google Cloud Platform SQL Overview page for the 'mydbos' database instance. The left sidebar lists 'MASTER INSTANCE' options: Overview, Connections, Users, Databases (which is selected), Backups, Replicas, and Operations. The main content area displays a table of logs:

Type	Status
Update	Instance is being updated
Backup	Backup finished
Create	Create finished

On the right, there are sections for 'Order of update' (Cloud SQL chooses the maintenance timing), 'Notifications' (Off), and 'Upcoming' (No maintenance scheduled right now). Buttons for 'Edit maintenance preferences' and 'Edit notification preferences' are also present.

The screenshot shows the Google Cloud Platform Databases page for the 'mydbos' database instance. The left sidebar has icons for Overview, Connections, Users, Databases (selected), Backups, Replicas, and Operations. The main content area shows the 'mydbos' database details:

All instances > mydbos
mydbos
MySQL 5.7

A '+ CREATE DATABASE' button is available. Below is a table of databases:

Name	Collation	Character set	Type
information_schema	utf8_general_ci	utf8	System
mysql	utf8_general_ci	utf8	System
performance_schema	utf8_general_ci	utf8	System
sys	utf8_general_ci	utf8	User
visheshdb	utf8_general_ci	utf8	User

The screenshot shows the Google Cloud Platform SQL interface for a master instance named "mydbos". The left sidebar has "SQL" selected. Under "MASTER INSTANCE", "Users" is selected in the navigation menu. The main area displays a table of users:

	Collation	Character set	Type
utf8_general_ci	utf8	System	⋮
utf8_general_ci	utf8	System	⋮
utf8_general_ci	utf8	System	⋮
utf8_general_ci	utf8	User	⋮
utf8_general_ci	utf8	User	⋮

Below the table, there is a URL bar with the address <https://console.cloud.google.com/sql/instances/mydbos/users?cloudshell=false&project=visheshproject-978479&supportedpurview=project>.

The screenshot shows the Google Cloud Platform SQL interface for a database instance named "mydbos". The left sidebar has "SQL" selected. Under "All instances > mydbos", "mydbos" is selected in the navigation menu. The main area displays a table of users:

User name	Host name	
mysql.sys	localhost	⋮
root	% (any host)	⋮

Below the table, there is a URL bar with the address <https://console.cloud.google.com/sql/instances/mydbos/users?cloudshell=false&project=visheshproject-978479&supportedpurview=project>.

Google cloud play | Day 2: - Google | You are now auth... | Explore - Docker | Google GCP - Go... | 23rdAug2020 GCP | Coronavirus India | +

hub.docker.com/search?q=wordpress&type=image

Apps New Tab Search Inbox (157) - 2019p... Inbox (1,144) - vish... Inbox (252) - 2019p... Gmail YouTube Maps 29th APRIL - Googl... YAMLint - The YAM...

Docker Containers Plugins

Filters 1 - 25 of 7,893 results for **wordpress**. [Clear search](#)

Most Popular

Docker Certified [i](#)

Docker Certified

Images

[Verified Publisher](#) [i](#)
Docker Certified And Verified
Publisher Content

[Official Images](#) [i](#)
Official Images Published By
Docker

wordpress Updated 7 hours ago **OFFICIAL IMAGE**

10M+ 3.7K Downloads Stars

The WordPress rich content management system can utilize plugins, widgets, ...

Container Linux PowerPC 64 LE ARM 64 ARM x86-64 mips64le
386 IBM Z Application Services

https://hub.docker.com/_/wordpress

Type here to search

C:\Users\user>kubectl.exe scale deployment myweb --replicas=2
deployment.extensions/myweb scaled

C:\Users\user>kubectl.exe create deployment mywp --image=wordpress
deployment.apps/mywp created

C:\Users\user>kubectl.exe get deployment

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
myweb	2/2	2	2	59m
mywp	0/1	1	0	8s

C:\Users\user>kubectl get pods -o wide

NAME	READY	STATUS	NOMINATED NODE	READINESS	GATES	RESTARTS	AGE	IP	NODE
myweb-5c58879c65-7c2bb	1/1	Running		<none>		0	58m	10.24.0.9	gke-cluster-1-default
t-pool-8c0f48ee-9v4z	<none>								
myweb-5c58879c65-wb8pm	1/1	Running		<none>		0	55m	10.24.0.10	gke-cluster-1-default
t-pool-8c0f48ee-9v4z	<none>								
mywp-56fd8dfcd6-sgxqc	0/1	ContainerCreating				0	19s	<none>	gke-cluster-1-default
t-pool-8c0f48ee-9v4z	<none>								

C:\Users\user>

```
cmd Select C:\Windows\SYSTEM32\cmd.exe
4526950' to proceed.
- '@type': type.googleapis.com/google.rpc.PreconditionFailure
  violations:
    - description: "billing-enabled: Project's billing account is not open. https://console.developers.google.com/project/212014526950/settings"
      subject: '212014526950'
      type: serviceusage/billing-enabled

C:\Users\user\AppData\Local\Google\Cloud SDK>kubectl expose deployment mywp --type=LoadBalancer --port=80
service/mywp exposed

C:\Users\user\AppData\Local\Google\Cloud SDK>
```

```
cmd Select C:\Windows\system32\cmd.exe
C:\Users\user>kubectl.exe create deployment mywp --image=wordpress
deployment.apps/mywp created

C:\Users\user>kubectl.exe get deployment
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
myweb     2/2     2           2           59m
mywp      0/1     1           0           8s

C:\Users\user>kubectl get pods -o wide
NAME                               READY   STATUS             RESTARTS   AGE   IP          NODE
myweb-5c58879c65-7c2bb            1/1    Running           0          58m   10.24.0.9   gke-cluster-1-default
t-pool-8c0f48ee-9v4z              <none> <none>           <none>    55m   10.24.0.10  gke-cluster-1-default
myweb-5c58879c65-wb8pm            1/1    Running           0          55m   10.24.0.10  gke-cluster-1-default
t-pool-8c0f48ee-9v4z              <none> <none>           <none>    19s   <none>       gke-cluster-1-default
mywp-56fd8dfcd6-sgxqc            0/1    ContainerCreating 0          19s   <none>       gke-cluster-1-default
t-pool-8c0f48ee-9v4z              <none> <none>           <none>

C:\Users\user>kubectl get services
NAME      TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)   AGE
kubernetes  ClusterIP  10.91.0.1   <none>        443/TCP   81m
myweb     LoadBalancer 10.91.3.218  35.240.166.42  80:30301/TCP 49m
mywp      LoadBalancer 10.91.13.29  <pending>     80:31810/TCP 17s

C:\Users\user>
```

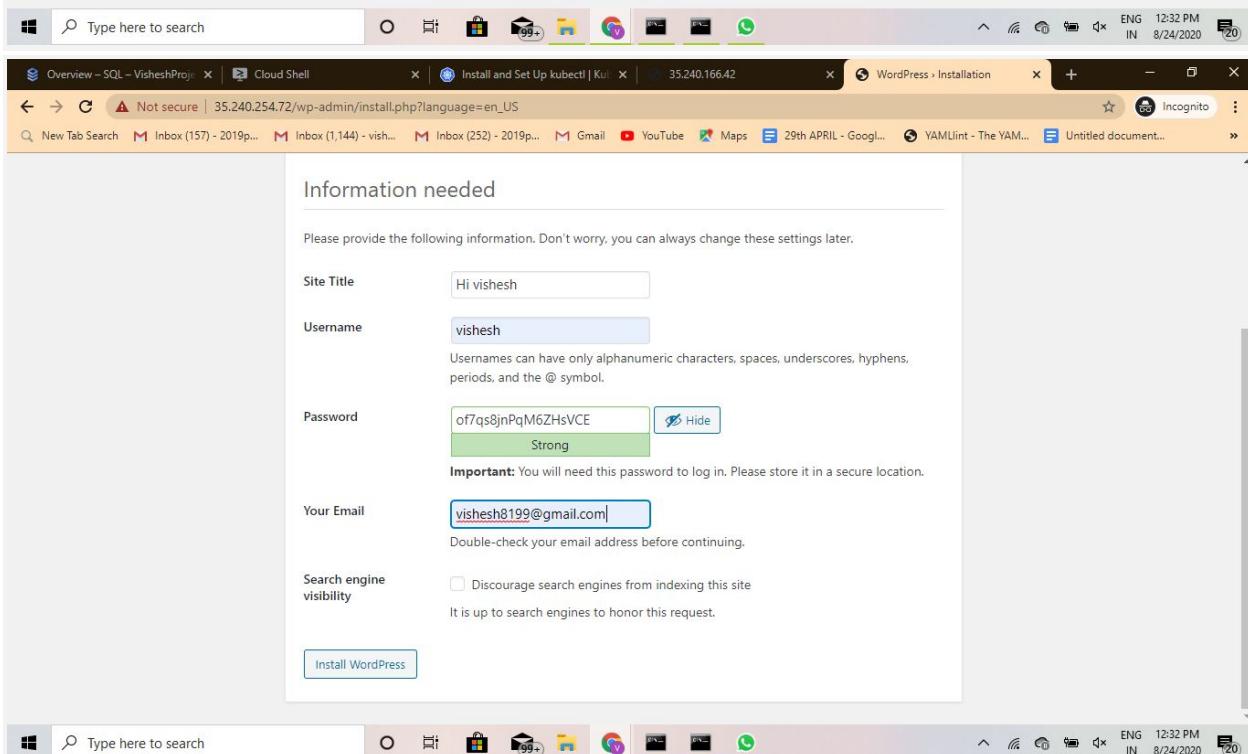
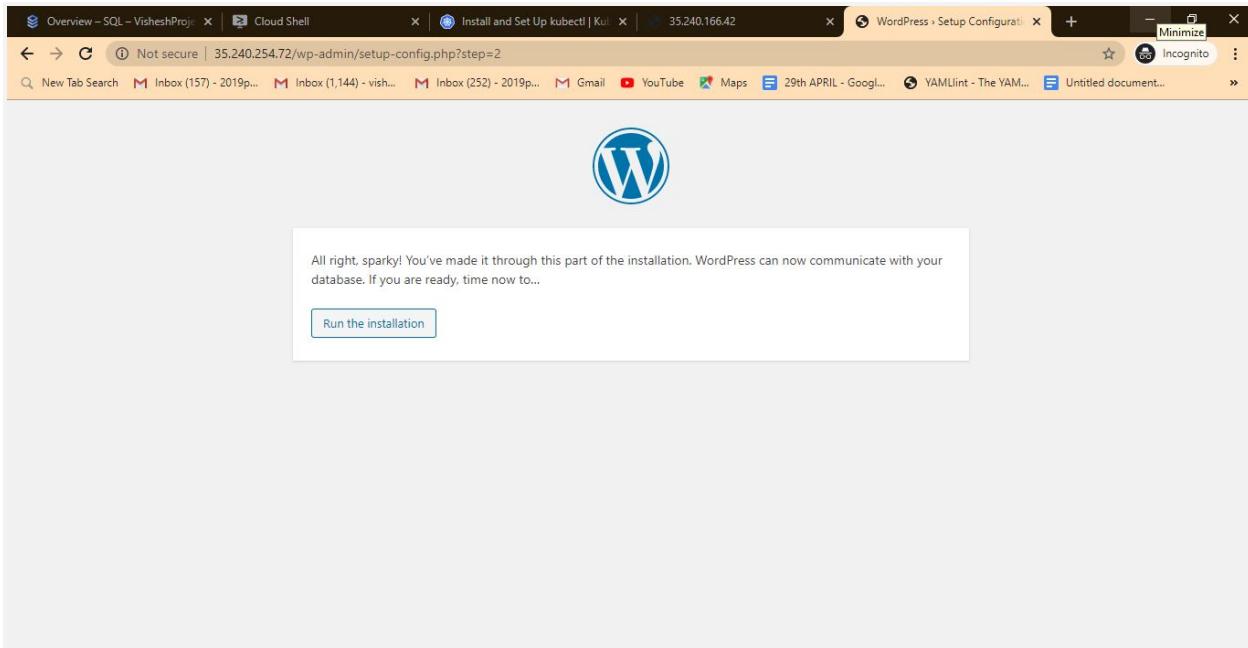
The screenshot shows the Google Cloud Platform SQL Instances page. At the top, there are several tabs and a search bar. Below the header, there's a table with columns: Instance ID, Type, Public IP address, Private IP address, Instance connection name, High availability, and Location. One row is visible for 'mydbos', which is a MySQL 5.7 instance with a public IP of 35.240.136.141.

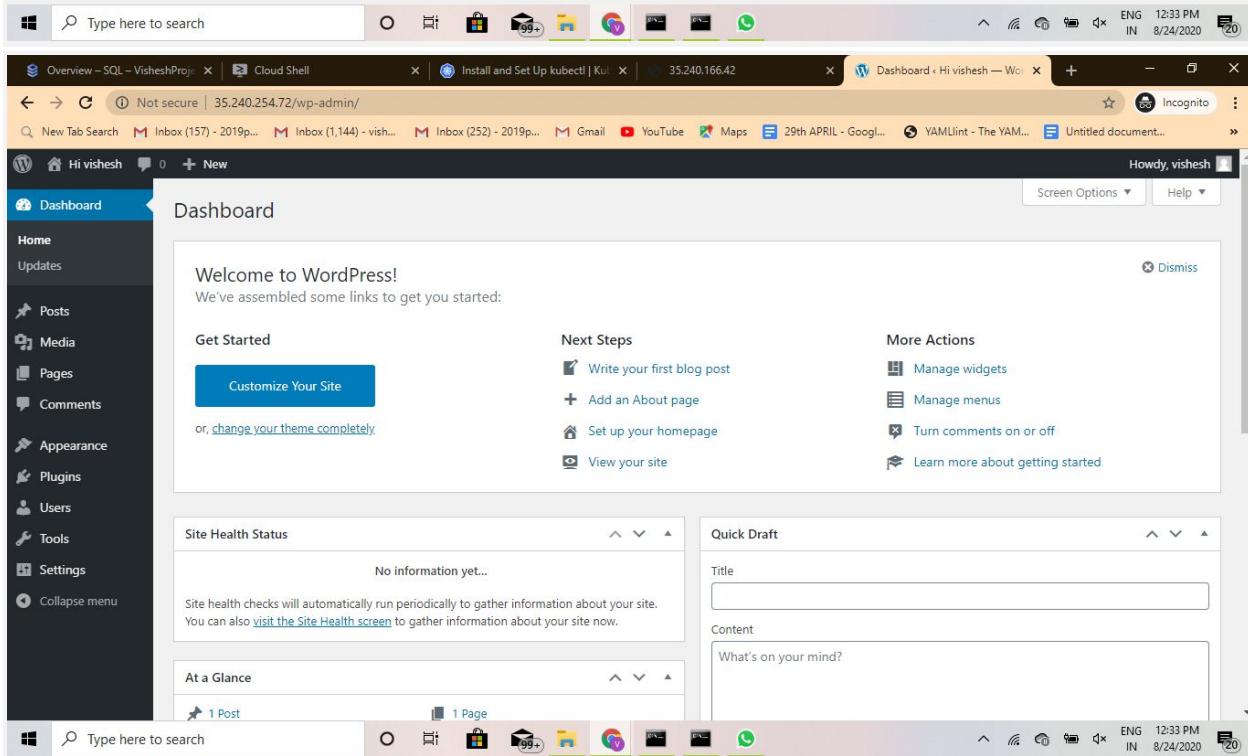
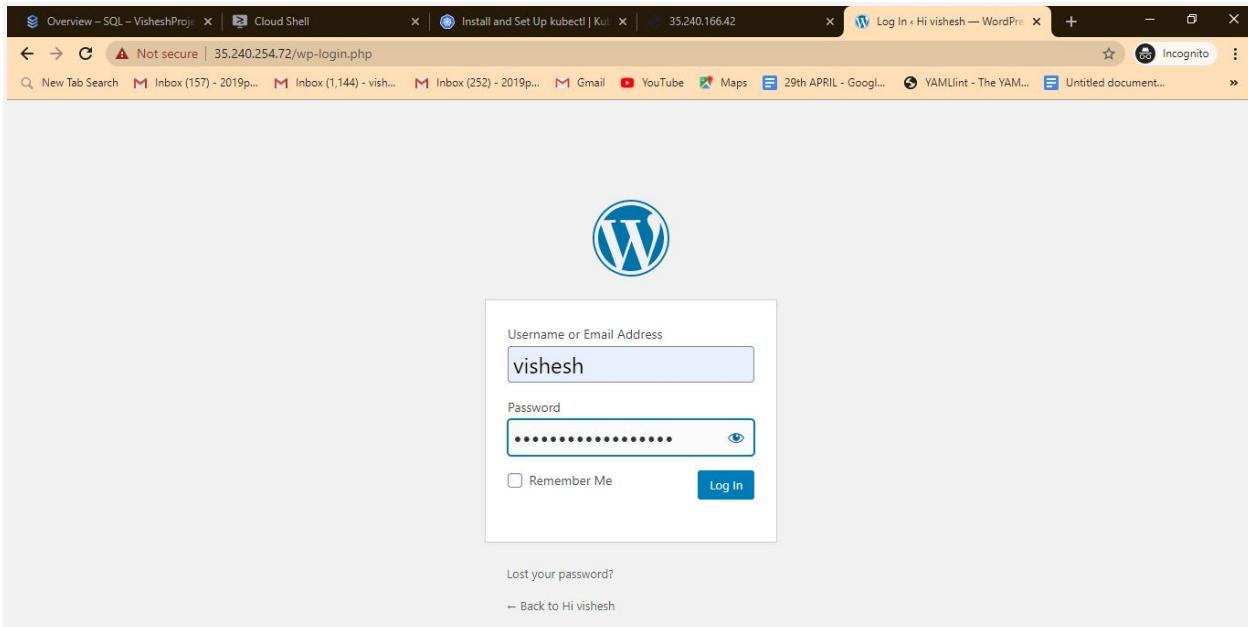
Instance ID	Type	Public IP address	Private IP address	Instance connection name	High availability	Location
mydbos	MySQL 5.7	35.240.136.141		visheshproject-9784...	ADD	asia-southea...

The screenshot shows a Microsoft Edge browser window with multiple tabs open. The active tab is 'Overview - SQL - VisheshProj...' and it displays the WordPress setup configuration page. The URL is 35.240.254.72/wp-admin/setup-config.php?step=1. The page features a large blue 'W' logo at the top. Below it, there's a form for entering database connection details:

Below you should enter your database connection details. If you're not sure about these, contact your host.

Database Name	visheshdb	The name of the database you want to use with WordPress.
Username	root	Your database username.
Password	redhat	Your database password.
Database Host	35.240.136.141	You should be able to get this info from your web host, if localhost doesn't work.
Table Prefix	wp_	If you want to run multiple WordPress installations in a single database, change this.





Overview - SQL - VisheshProject | Cloud Shell | Install and Set Up kubectl | Kube... | 35.240.166.42 | Dashboard < Hi vishesh — W... | +

console.cloud.google.com/sql/instances/mydbos/overview?cloudshell=false&project=visheshproject-978479&supportedpurview=project

New Tab Search | Inbox (157) - 2019p... | Inbox (1,144) - vish... | Inbox (252) - 2019p... | Gmail | YouTube | Maps | 29th APRIL - Googl... | YAMLint - The YAM... | Untitled document...

Incognito

Google Cloud Platform VisheshProject

Search products and resources

IMPORT EXPORT RESTART STOP DELETE CLONE

Home Compute Engine PRODUCTS ▾ DIGITAL ▾ Datastore Firestore Filestore Storage SQL Spanner

Type Status

Create Database

Browser Monitoring Transfer Transfer for on-premises Transfer Appliance Settings

Notifications Off

Upcoming No maintenance scheduled right now.

Edit maintenance preferences Edit notification preferences

https://console.cloud.google.com/storage/browser?cloudshell=false&project=visheshproject-978479

Type here to search ENG IN 12:36 PM 8/24/2020

Storage browser - Storage | Cloud Shell | Install and Set Up kubectl | Kube... | 35.240.166.42 | Dashboard < Hi vishesh — W... | +

console.cloud.google.com/storage/browser?cloudshell=false&project=visheshproject-978479&supportedpurview=project&prefix=

New Tab Search | Inbox (157) - 2019p... | Inbox (1,144) - vish... | Inbox (252) - 2019p... | Gmail | YouTube | Maps | 29th APRIL - Googl... | YAMLint - The YAM... | Untitled document...

Incognito

Google Cloud Platform

Search products and resources

DELETE REFRESH SHOW INFO PANEL LEARN

IAM

Identity & Organization Policy Troubleshooter Organization Policies Quotas Service Accounts Labels Settings Privacy & Security Identity-Aware Proxy Roles Audit Logs Manage Resources

Now you can filter your buckets by any value and sort by any column. DISMISS

Location Default storage class Updated Public access Acc

https://console.cloud.google.com/iam-admin/quotas?cloudshell=false&project=visheshproject-978479&supportedpurview=project

Type here to search ENG IN 12:41 PM 8/24/2020

IAM – IAM & Admin – VisheshProject

Cloud Shell

Install and Set Up kubectl | Kube

35.240.166.42

Dashboard < Hi vishesh — Work

New Tab Search

Inbox (157) - 2019p...
Inbox (1,144) - vish...
Inbox (252) - 2019p...
Gmail

YouTube

Maps

29th APRIL - Google...

YAMLInt - The YAM...

Untitled document...

Incognito

Add members to "VisheshProject"

Add members, roles to "VisheshProject" project

Enter one or more members below. Then select a role for these members to grant them access to your resources. Multiple roles allowed. [Learn more](#)

New members

Select a role

Condition [Add condition](#)

+ ADD ANOTHER ROLE

Type Member

Send notification email

SAVE **CANCEL**

Type here to search

12:41 PM
ENG IN 8/24/2020

Permissions for p

These permissions affect t

View By: MEMBERS

Filter table

Type Member

61958

61958

IAM – IAM & Admin – VisheshProject

Cloud Shell

Install and Set Up kubectl | Kube

35.240.166.42

Dashboard < Hi vishesh — Work

New Tab Search

Inbox (157) - 2019p...
Inbox (1,144) - vish...
Inbox (252) - 2019p...
Gmail

YouTube

Maps

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Incognito

Add members to "VisheshProject"

Add members, roles to "VisheshProject" project

Enter one or more members below. Then select a role for these members to grant them access to your resources. Multiple roles allowed. [Learn more](#)

New members

Role

Condition [Add condition](#)

Read-only access to Notebooks all resources through compute API.

+ ADD ANOTHER ROLE

Send notification email

This email will inform members that you've granted them access to this role for "VisheshProject"

SAVE **CANCEL**

Type here to search

12:43 PM
ENG IN 8/24/2020

Permissions for p

These permissions affect t

View By: MEMBERS

Filter table

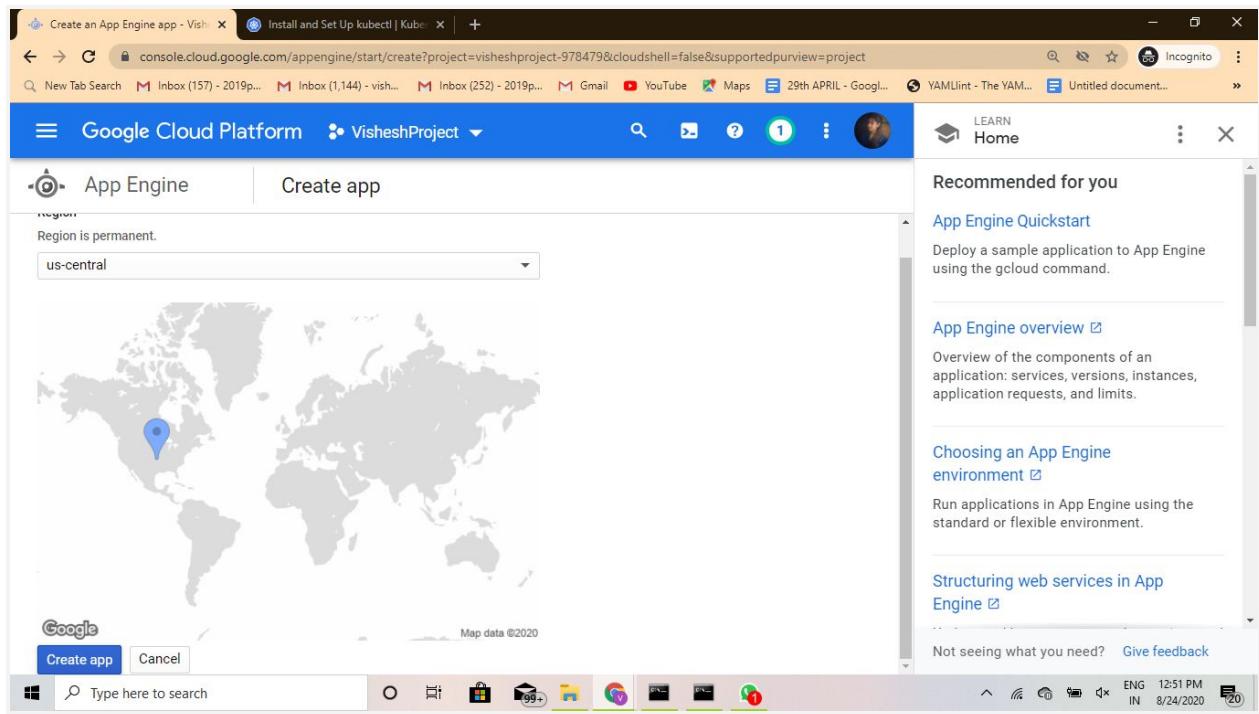
Type Member

61958

61958

The screenshot shows the Google Cloud Platform interface. The left sidebar is expanded to show the Compute Engine section. Under 'Compute', 'App Engine' is selected. A dropdown menu for 'Compute Engine' is open, listing 'Instances', 'Task queues', 'Cron jobs', 'Security scans', 'Firewall rules', 'Quotas', 'Memcache', 'Search', and 'Settings'. The main content area displays a table of three instances. The columns are 'Recommendation', 'In use by', 'Internal IP', 'External IP', and 'Connect'. The first instance has Internal IP 10.148.0.3 (nic0) and External IP 35.198.242.59. The second instance has Internal IP 10.148.0.2 (nic0) and External IP 35.240.236.102. The third instance has Internal IP 10.148.0.4 (nic0) and External IP 35.240.246.77.

The screenshot shows the Google Cloud Platform interface. The left sidebar is expanded to show the App Engine section. The main content area displays a blue banner with the text 'Welcome to App Engine' and 'Build scalable apps in any language on Google's infrastructure'. Below the banner is a 'Create Application' button. To the right, there is a sidebar with sections for 'Recommended for you', 'App Engine Quickstart', 'App Engine overview', 'Choosing an App Engine environment', 'Structuring web services in App Engine', and a feedback link 'Not seeing what you need? Give feedback'.



The screenshot shows the 'Get started' page for Google Cloud Platform's App Engine. The URL in the address bar is console.cloud.google.com/appengine/start/reception?project=visheshproject-978479&cloudshell=false&supportedpurview=project. The page title is 'Get started - VisheshProject - Go'. The main content area has a heading 'App Engine' and a 'Get started' button. A note says: 'This step is optional. Its purpose is to guide you to the relevant SDK, code samples and, if necessary, enable billing.' On the left, there is a 'Language' dropdown menu with options: Python, Node.js, Java, Go, PHP, .NET, Ruby, and Other. The 'PHP' option is currently selected.

The screenshot shows the 'Next steps' page for Google Cloud Platform's App Engine. The URL in the address bar is console.cloud.google.com/appengine/start/deploy?language=python&environment=standard&project=visheshproject-978479&cloudshell=false&supportedpurview=project. The page title is 'App Engine Next Steps - VisheshProject - Go'. The main content area has a heading 'App Engine' and a 'Next steps' button. A note says: 'Your app is being created.' Below this, there are two sections: 'Resources' and 'Deploy with Google Cloud SDK'. The 'Resources' section contains links to 'Documentation' for Python in App Engine and 'Visit Github' for code samples in standard Python. The 'Deploy with Google Cloud SDK' section contains a 'Download the Cloud SDK' button, instructions to 'Initialize your SDK' with the command `$ gcloud init`, and instructions to 'Deploy to App Engine' with the command `$ gcloud app deploy`. At the bottom of the page, there is a link 'I'LL DO THIS LATER'.

