

GCP TASK

Google Cloud Platform

Google Cloud Platform (GCP), offered by Google, is a suite of cloud computing services that runs on the same infrastructure that Google uses internally for its end-user products, such as Google Search.

Google Cloud Platform is a provider of **computing** resources for deploying and operating applications on the web. Its specialty is providing a place for individuals and enterprises to build and run software, and it **uses** the web to connect to the users of that software.

Task Description :-

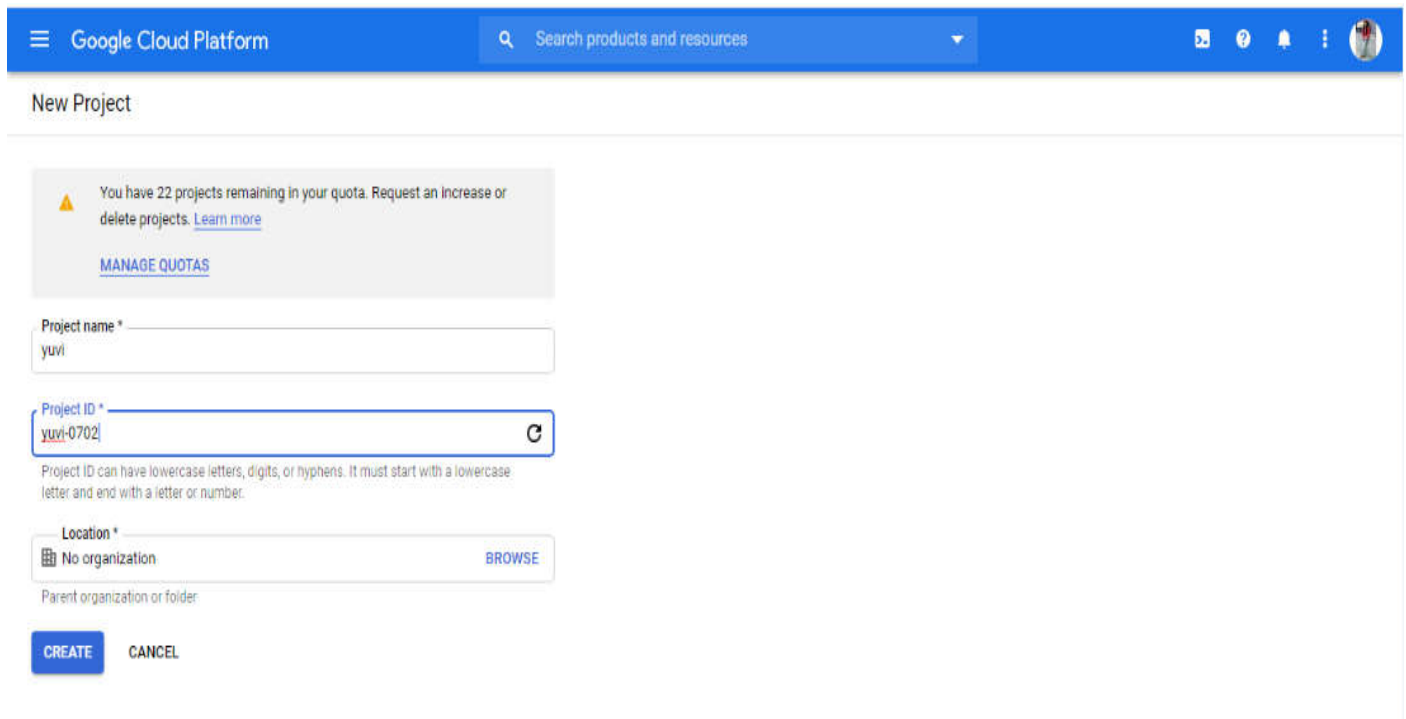
- ✓ Create Two projects
- ✓ Enable API's
- ✓ Create VPC in both the projects in different - different regions
- ✓ Create subnets in both the VPC
- ✓ Do VPC peering for the connection
- ✓ Create Google Kubernetes Engine (GKE) in one VPC and launch cluster
- ✓ Launch Wordpress on the top of that Kubernetes cluster
- ✓ Create deployment which automatically will create a LoadBalancer for any disaster recovery
- ✓ Launch SQL server in other VPC with MYSQL database
- ✓ Then finally install wordpress in one VPC using running database in other PC

I also have done something extra here :-

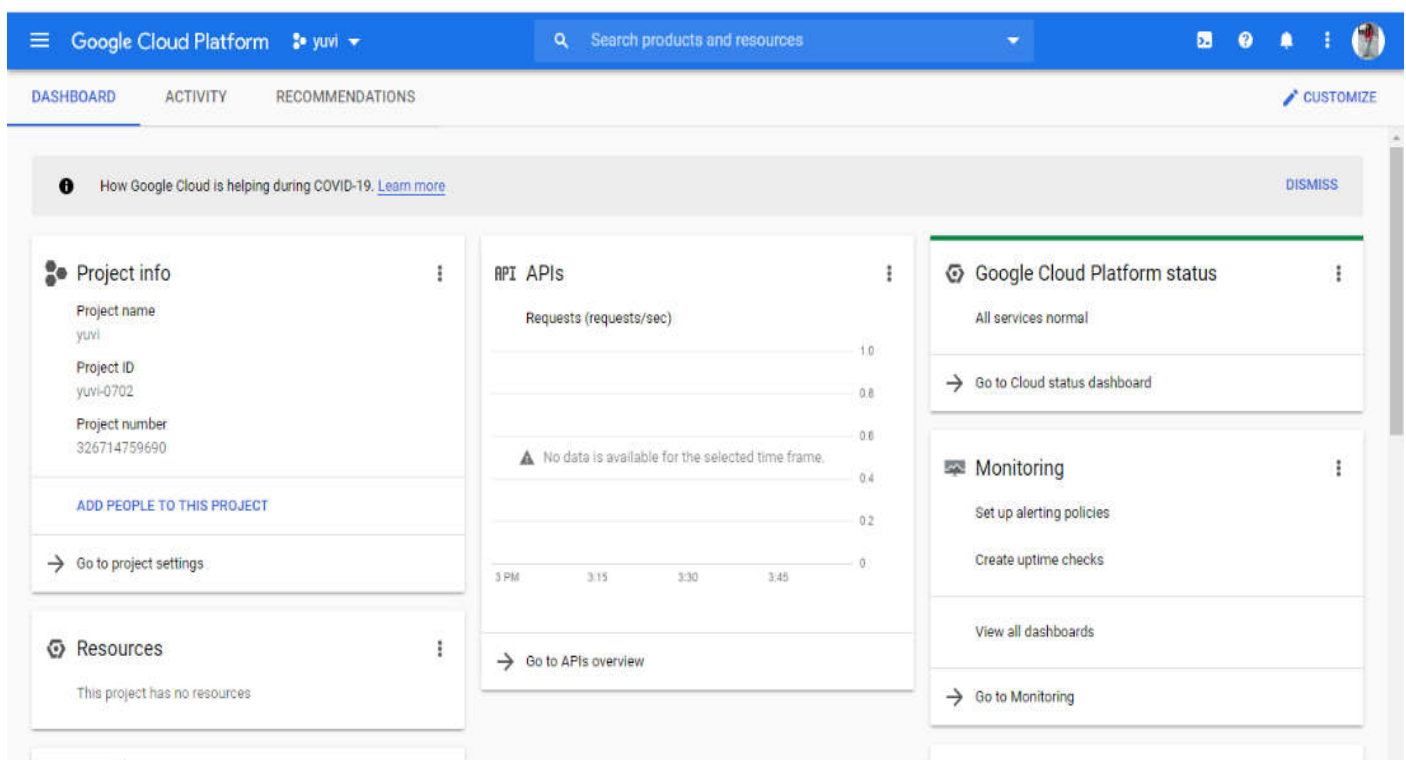
- ✓ I Launched one VM here and hosted a webserver on that VM

Project Creation :-

A **project** organizes all your Google Cloud resources. A **project** consists of a set of users; a set of APIs; and billing, authentication, and monitoring settings for those APIs.



The screenshot shows the 'New Project' page in the Google Cloud Platform console. At the top, there's a blue header with the Google Cloud Platform logo, a search bar, and user profile icons. Below the header, the page title is 'New Project'. A warning message states: 'You have 22 projects remaining in your quota. Request an increase or delete projects. [Learn more](#)'. Below this, there's a 'MANAGE QUOTAS' link. The form includes three main input fields: 'Project name *' with the value 'yuvl', 'Project ID *' with the value 'yuvl-0702' and a copy icon, and 'Location *' with the value 'No organization' and a 'BROWSE' button. A note below the location field says 'Parent organization or folder'. At the bottom, there are 'CREATE' and 'CANCEL' buttons.



The screenshot shows the Google Cloud Platform dashboard for a new project named 'yuvl'. The top navigation bar includes the Google Cloud Platform logo, the project name 'yuvl', a search bar, and user profile icons. Below the navigation bar, there are tabs for 'DASHBOARD', 'ACTIVITY', and 'RECOMMENDATIONS', with 'DASHBOARD' being the active tab. A 'CUSTOMIZE' button is also present. A banner at the top of the dashboard area reads 'How Google Cloud is helping during COVID-19. [Learn more](#)' with a 'DISMISS' button. The dashboard is divided into three main sections: 'Project info' on the left, 'API APIs' in the center, and 'Google Cloud Platform status' and 'Monitoring' on the right. The 'Project info' section shows the project name 'yuvl', project ID 'yuvl-0702', and project number '326714759690'. It also has a link to 'ADD PEOPLE TO THIS PROJECT' and a 'Go to project settings' button. The 'API APIs' section shows a line chart for 'Requests (requests/sec)' with a y-axis from 0 to 1.0 and an x-axis from 3 PM to 3:45. A warning message states 'No data is available for the selected time frame.' and there is a 'Go to APIs overview' button. The 'Google Cloud Platform status' section shows 'All services normal' and a 'Go to Cloud status dashboard' button. The 'Monitoring' section has links to 'Set up alerting policies', 'Create uptime checks', 'View all dashboards', and 'Go to Monitoring'.

Enable Billing :-

The screenshot shows the Google Cloud Platform Billing interface. The left sidebar contains navigation links: Overview, Reports, Cost table, Cost breakdown, Commitments, Budgets & alerts, Billing export, Pricing, Documents, Transactions, Payment settings, and Payment method. The main content area is titled 'Account management' and shows the 'My Billing Account' section. It displays the billing account ID (01FBD7-CB745D-B07318) and the enabled Google service (Google Cloud Platform). Below this, a table lists projects linked to the billing account:

Project name	Project ID
yuvi	yuvi-0702
My First Project	disco-dispatch-287407

A context menu is open for the 'My First Project' row, showing options: 'Disable billing' and 'Change billing'. On the right, the 'My Billing Account' section shows the 'PERMISSIONS' tab with an 'Add members' button and a search bar for members. Below the search bar, it shows 'Billing Account Administrator (1 member)' with a dropdown arrow.

I have created another project using CLI :-

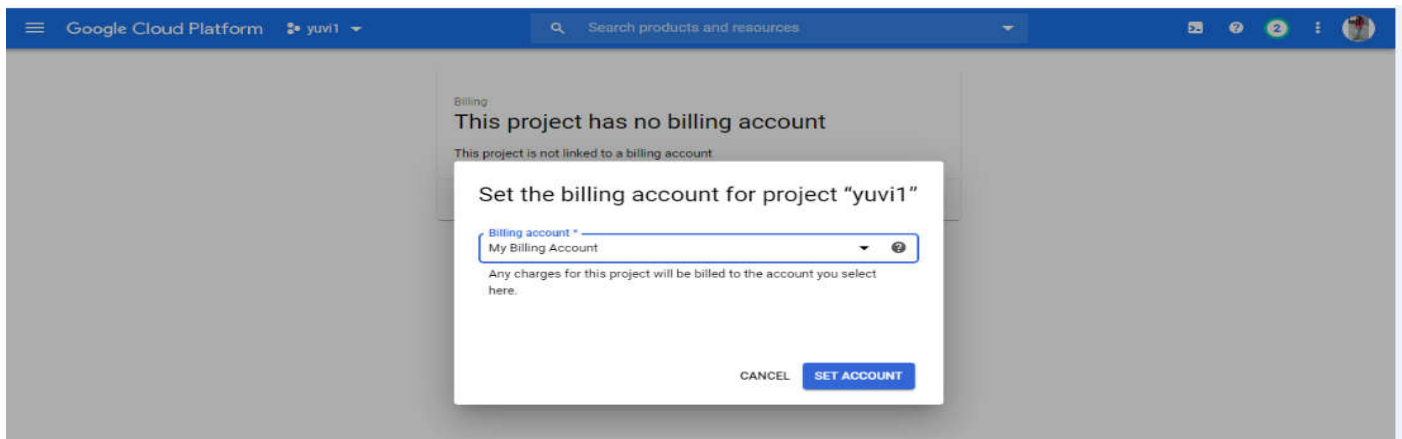
```
preetishishodia702@cloudshell:~$ gcloud projects create yuvi-0207 --name=yuvil
Create in progress for [https://cloudresourcemanager.googleapis.com/v1/projects/yuvi-0207].
Waiting for [operations/cp.9166606076529872767] to finish...done.
Enabling service [cloudapis.googleapis.com] on project [yuvi-0207]...
Operation "operations/acf.e002f132-1fa3-41e7-9565-83073732bba3" finished successfully.
preetishishodia702@cloudshell:~$ gcloud projects list
PROJECT_ID      NAME              PROJECT_NUMBER
disco-dispatch-287407  My First Project  737278956129
windy-fortress-287206  My First Project  594834881036
yuvi-0207         yuvil            759643201661
yuvi-0702         yuvi            326714759690
preetishishodia702@cloudshell:~$
```

Set billing for this project also :-

The screenshot shows the Google Cloud Platform Billing interface. The left sidebar contains navigation links: Overview, Reports, Cost table, Cost breakdown, Commitments, Budgets & alerts, Billing export, Pricing, Documents, Transactions, Payment settings, and Payment method. The main content area is titled 'Account management' and shows the 'My Billing Account' section. It displays the billing account ID (01FBD7-CB745D-B07318) and the enabled Google service (Google Cloud Platform). Below this, a table lists projects linked to the billing account:

Project name	Project ID
yuvi	yuvi-0702
My First Project	disco-dispatch-287407

A context menu is open for the 'My First Project' row, showing options: 'Disable billing' and 'Change billing'. On the right, the 'My Billing Account' section shows the 'PERMISSIONS' tab with an 'Add members' button and a search bar for members. Below the search bar, it shows 'Billing Account Administrator (1 member)' with a dropdown arrow.



Billing account ID: 01FBD7-CB745D-B0731B
Enabled Google service: Google Cloud Platform

Projects linked to this billing account

Project name	Project ID	
yuvi	yuvi-0702	⋮
My First Project	disco-dispatch-287407	⋮
yuvi1	yuvi-0207	⋮

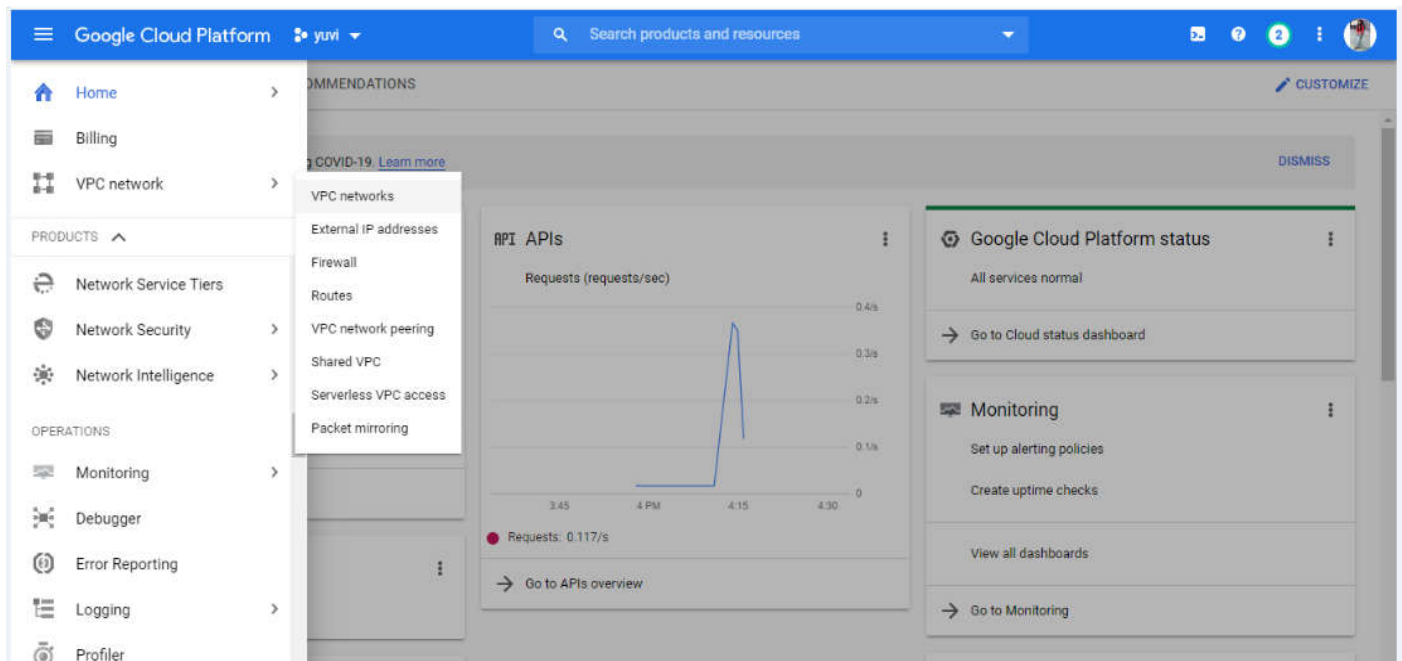
Disable billing

Change billing

VPC Creation :-

Virtual Private Cloud (**VPC**) provides networking functionality to Compute Engine virtual machine (VM) instances, Google Kubernetes Engine (GKE) clusters, and the App Engine flexible environment. VPC provides networking for your cloud-based resources and services

VPC Creation in one project :-



Google Cloud Platform

yuv

Search products and resources

VPC network

VPC networks

External IP addresses

Firewall

Routes

VPC network peering

Shared VPC

Serverless VPC access

Packet mirroring

Create a VPC network

Name *

myvpc

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](#)

Subnet creation mode

Custom

Automatic

New subnet

Name *

lab1

Lowercase letters, numbers, hyphens allowed

Google Cloud Platform

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Search products and resources

VPC network

VPC networks

External IP addresses

Firewall

Routes

VPC network peering

Shared VPC

Serverless VPC access

Packet mirroring

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 Stackdriver. [Learn more](#)

On

Off

CANCEL

DONE

ADD SUBNET

Google Cloud Platform

yuv

Search products and resources

VPC network

VPC networks

External IP addresses

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Create a VPC network

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 Stackdriver. [Learn more](#)

On

Off

CANCEL

DONE

ADD SUBNET

Dynamic routing mode

Regional

Cloud Routers will learn routes only in the region in which they were created

Global

Global routing lets you dynamically learn routes to and from all regions with a single VPN or interconnect and Cloud Router

Enable DNS API to pick a DNS policy

ENABLE

CREATE

CANCEL

Equivalent [REST](#) or [command line](#)

VPC Creation in other project :-

Google Cloud Platform

yuv1

Search products and resources

VPC network

VPC networks

External IP addresses

Firewall

Routes

VPC network peering

Shared VPC

Serverless VPC access

Packet mirroring

Create a VPC network

Name *
myvpc1
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](#)

Subnet creation mode
☒ Custom
☐ Automatic

New subnet

Name *
lab2
Lowercase letters, numbers, hyphens allowed

Google Cloud Platform

yuv1

Search products and resources

VPC network

VPC networks

External IP addresses

Firewall

Routes

VPC network peering

Shared VPC

Serverless VPC access

Packet mirroring

Create a VPC network

Region *
us-east1

IP address range *
10.0.2.0/24

[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 Stackdriver. [Learn more](#)
☐ On
☒ Off

CANCEL DONE

ADD SUBNET

Dynamic routing mode ⓘ
☒ Regional
Cloud Routers will learn routes only in the region in which they were created

Google Cloud Platform

yuv1

Search products and resources

VPC network

VPC networks

External IP addresses

Firewall

Routes

VPC network peering

Shared VPC

Serverless VPC access

Packet mirroring

Create a VPC network

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 Stackdriver. [Learn more](#)
☐ On
☒ Off

CANCEL DONE

ADD SUBNET

Dynamic routing mode ⓘ
☒ Regional
Cloud Routers will learn routes only in the region in which they were created
☐ Global
Global routing lets you dynamically learn routes to and from all regions with a single VPN or interconnect and Cloud Router

ⓘ Enable DNS API to pick a DNS policy ENABLE

CREATE CANCEL

Equivalent [REST](#) or [command line](#)

VPC peering

Google Cloud VPC Network **Peering** allows internal IP address connectivity across two Virtual Private Cloud (VPC) networks regardless of whether they belong to the same project or the same organization. Traffic stays within Google's network and doesn't traverse the public internet.

VPC peering in US region :-

The screenshot shows the 'Create peering connection' form in the Google Cloud Platform console. The left sidebar lists VPC network options, with 'VPC network peering' selected. The main form area contains the following fields and options:

- Name ***: vpc1peering (with a help icon and note: 'Lowercase letters, numbers, hyphens allowed')
- Your VPC network ***: myvpc1 (with a dropdown arrow and help icon)
- Peered VPC network**:
 - ☐ In project yuvi-0207
 - ☒ In another project
- Project ID**: yuvi-0702
- VPC network name**: myvpc
- EXCHANGE CUSTOM ROUTES**: A link to expand options.
- Buttons**: CREATE and CANCEL.

An informational message at the top states: 'Your VPC network will be fully connected to the peered VPC network (full mesh topology). Routes to subnets in the peered VPC network will be automatically created.'

Currently it is inactive, but as soon as VPC peering will create in other region it will active automatically,

The screenshot shows the 'VPC network peering' table in the Google Cloud Platform console. The table has the following columns: Name, Your VPC network, Peered VPC network, Peered project ID, Status, and Exchange custom routes. There is one entry in the table with the status 'Inactive'.

	Name	Your VPC network	Peered VPC network	Peered project ID	Status	Exchange custom routes
<input type="checkbox"/>	vpc1peering	myvpc1	myvpc	yuvi-0702	Inactive	None

VPC peering in Singapore region :-

The screenshot shows the 'Create peering connection' form in the Google Cloud Platform console. The left sidebar lists VPC network-related options, with 'VPC network peering' selected. The main form area contains a warning message, input fields for 'Name' (vpcpeering), 'Your VPC network' (myvpc), and 'Peered VPC network' details (Project ID: yuvi-0207, VPC network name: myvpc1). There is a checkbox for 'EXCHANGE CUSTOM ROUTES' and 'CREATE'/'CANCEL' buttons at the bottom.

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VPC network

- VPC networks
- External IP addresses
- Firewall
- Routes
- VPC network peering**
- Shared VPC
- Serverless VPC access
- Packet mirroring

Create peering connection

Warning: Your VPC network will be fully connected to the peered VPC network (full mesh topology). Routes to subnets in the peered VPC network will be automatically created.

Name *
vpcpeering
Lowercase letters, numbers, hyphens allowed

Your VPC network *
myvpc

Peered VPC network

☐ In project yuvi-0702

☒ In another project

Project ID
yuvi-0207

VPC network name
myvpc1

☒ EXCHANGE CUSTOM ROUTES

CREATE **CANCEL**

It is active now,

The screenshot shows the 'VPC network peering' table in the Google Cloud Platform console. The table has columns for Name, Your VPC network, Peered VPC network, Peered project ID, Status, and Exchange custom routes. A single row is shown with the connection 'vpcpeering' between 'myvpc' and 'myvpc1' in project 'yuvi-0207', with a status of 'Active'.

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VPC network

- VPC networks
- External IP addresses
- Firewall
- Routes
- VPC network peering**

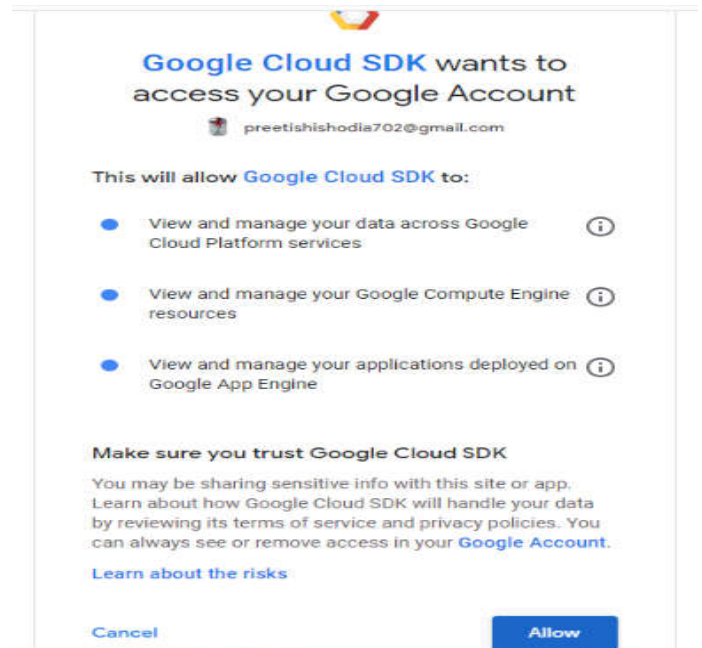
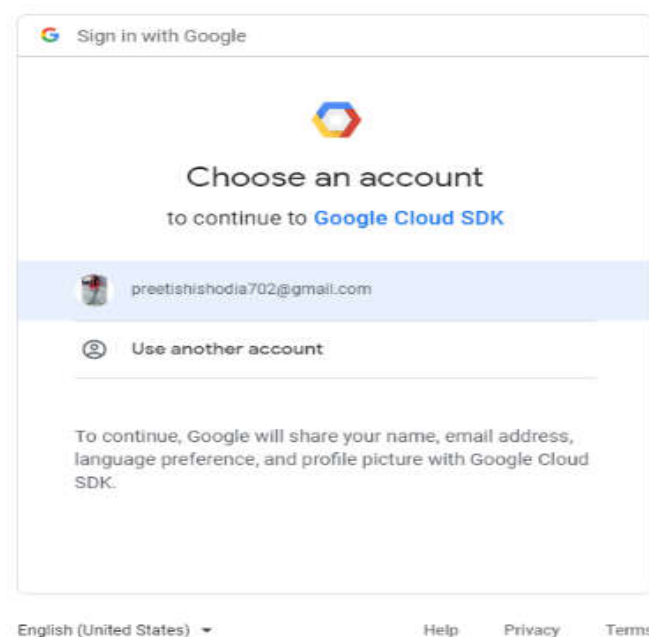
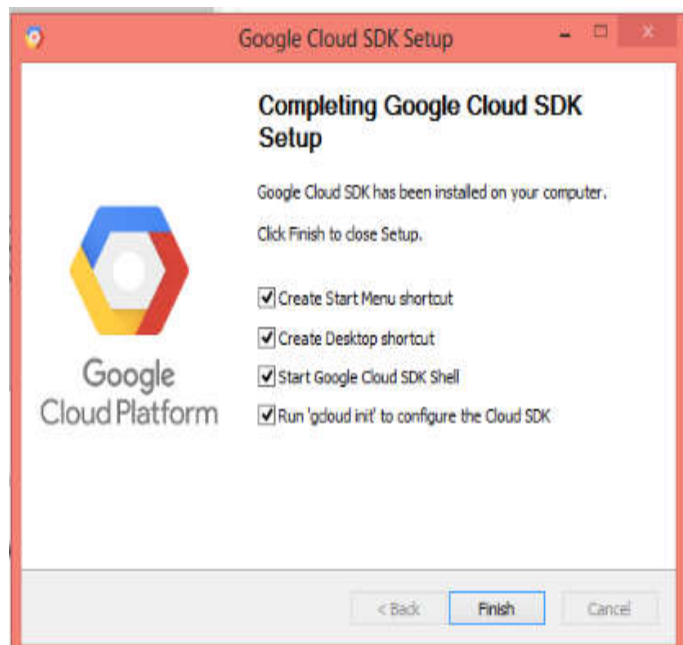
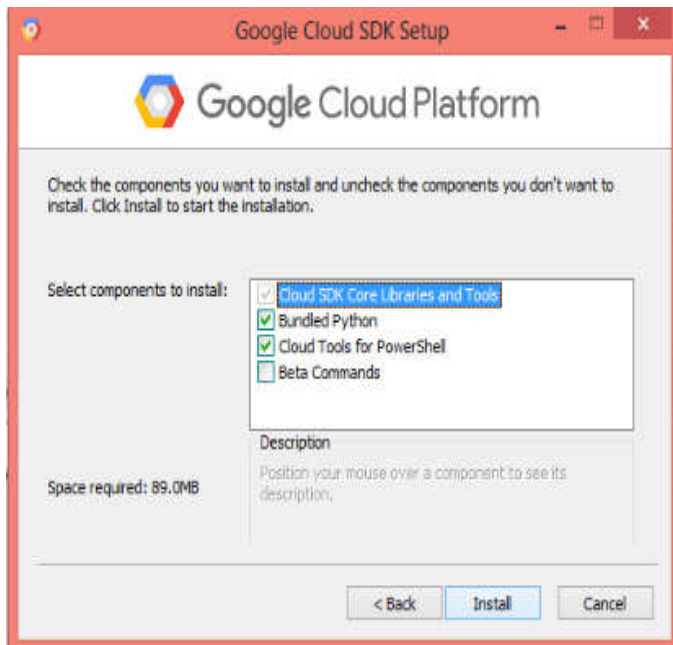
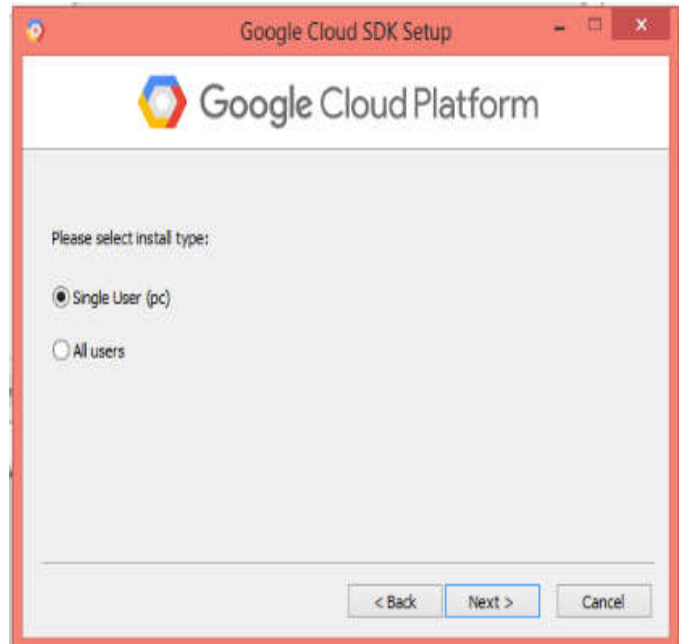
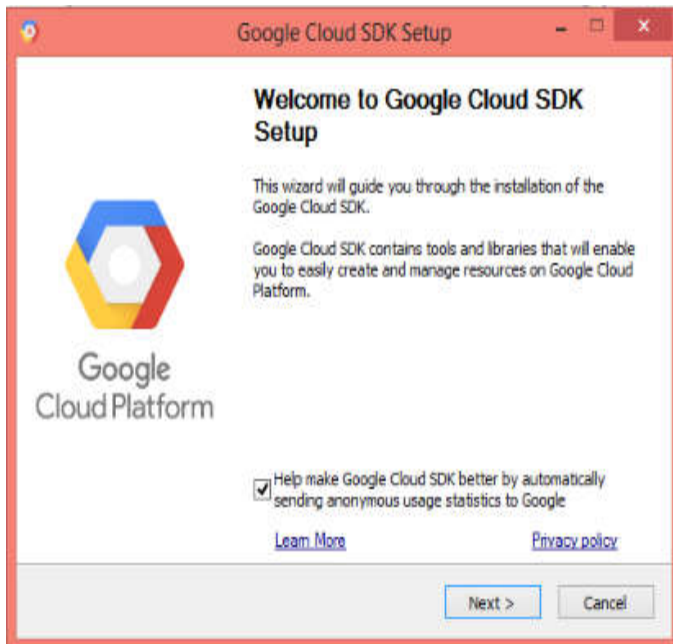
VPC network peering

CREATE PEERING CONNECTION **REFRESH** **DELETE**

Filter table

Name	Your VPC network	Peered VPC network	Peered project ID	Status	Exchange custom routes
vpcpeering	myvpc	myvpc1	yuvi-0207	Active	None

Now, setup Google SDKInstaller in baseOS to run gcloud command from baseOS.



```
gcloud init

Welcome to the Google Cloud SDK! Run "gcloud -h" to get the list of available command
Welcome! This command will take you through the configuration of gcloud.
Your current configuration has been set to: [default]
You can skip diagnostics next time by using the following flag:
  gcloud init --skip-diagnostics
Network diagnostic detects and fixes local network connection issues.
Checking network connection...done.
Reachability Check passed.
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&scope=openid+https://www.googleapis.com/auth/cloud-platform+https://www.googleapis.com/auth/appengine.admin+https://www.googleapis.com/auth/compute+https://www.googleapis.com/auth/accounts.reauth&code_challenge=BpDBvBh91ir8-oDz8ali-KH00qCWSuu9de_challenge_method=S256&access_type=offline&response_type=code&prompt=select_account

You are logged in as: [preetishishodia702@gmail.com].

Pick cloud project to use:
[1] disco-dispatch-287407
[2] windy-fortress-287206
[3] yuvi-0207
[4] yuvi-0702
[5] Create a new project
Please enter numeric choice or text value (must exactly match list item):
```

```
Microsoft Windows [Version 6.2.9200]
(c) 2012 Microsoft Corporation. All rights reserved.

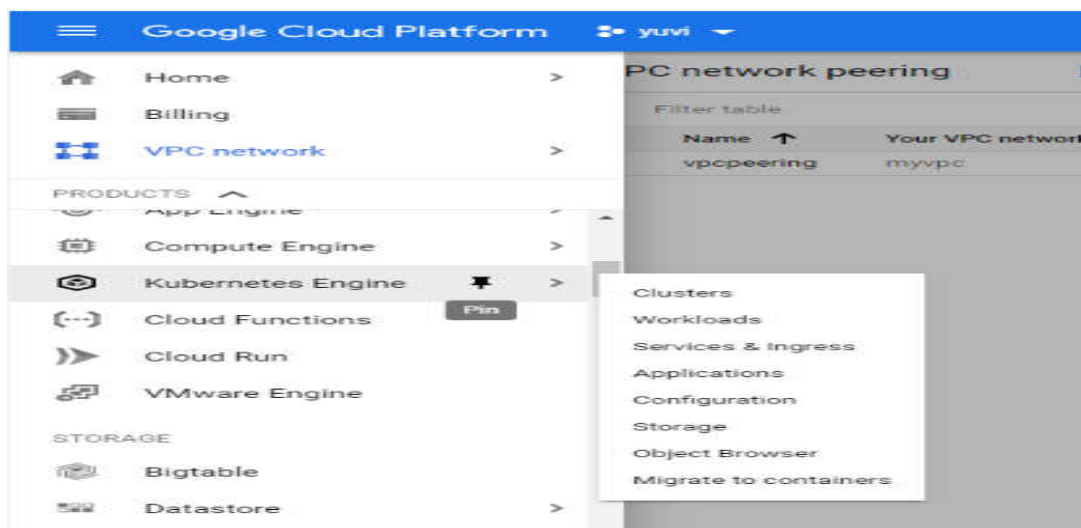
C:\Users\pc>gcloud projects list
PROJECT_ID          NAME                PROJECT_NUMBER
disco-dispatch-287407 My First Project    737278956129
windy-fortress-287206 My First Project    594834881036
yuvi-0207            yuvi               759643201661
yuvi-0702            yuvi               326714759690

C:\Users\pc>
```

Creation of GKE (Google Kubernetes Engine) :-

Google Kubernetes Engine (GKE) provides a managed environment for deploying, managing, and scaling your containerized applications using Google infrastructure.

Creation of Cluster in **asia-southeast1** region :-



Google Cloud Platform

yuvi

Search products and resources

Create a Kubernetes cluster

Cluster basics

NODE POOLS

default-pool

- Nodes
- Security
- Metadata

CLUSTER

Automation

Networking

Security

Metadata

Features

Name

mycluster

Location type

☐ Zonal

☒ Regional

Region

asia-southeast1

☒ Specify default node locations

The same number of nodes will be deployed to each selected zone

☒ asia-southeast1-a

☒ asia-southeast1-b

☒ asia-southeast1-c

Master version

Choose Release Channel to get automatic GKE upgrades as new versions are ready. Choose a static version to upgrade manually in the future. [Learn more.](#)

☐ Release channel

☒ Static version

CREATE

CANCEL

Equivalent [REST](#) or [command line](#)

Google Cloud Platform

yuvi

Search products and resources

Create a Kubernetes cluster

Cluster basics

NODE POOLS

default-pool

- Nodes
- Security
- Metadata

CLUSTER

Automation

Networking

Security

Metadata

Features

☒ Regional

Region

asia-southeast1

☒ Specify default node locations

The same number of nodes will be deployed to each selected zone

☒ asia-southeast1-a

☒ asia-southeast1-b

☒ asia-southeast1-c

Master version

Choose Release Channel to get automatic GKE upgrades as new versions are ready. Choose a static version to upgrade manually in the future. [Learn more.](#)

☐ Release channel

☒ Static version

Static version

1.15.12-gke.2 (default)

CREATE

CANCEL

Equivalent [REST](#) or [command line](#)

Google Cloud Platform

Search products and resources

Create a Kubernetes cluster

Cluster basics

NODE POOLS

default-pool

Nodes

Security

Metadata

CLUSTER

Automation

Networking

Security

Metadata

Features

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

☐ Specify node locations

Default: us-central1-c

Automation

☒ Enable auto-upgrade

CREATE

CANCEL

Equivalent [REST](#) or [command line](#)

Google Cloud Platform

Search products and resources

Create a Kubernetes cluster

Cluster basics

NODE POOLS

default-pool

Nodes

Security

Metadata

CLUSTER

Automation

Networking

Security

Metadata

Features

Nodes

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

Image type

Container-Optimized OS (cos) (default)

Machine Configuration

Machine family

GENERAL-PURPOSE

COMPUTE-OPTIMIZED

MEMORY-OPTIMIZED

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

1

Memory

3.75 GB

CREATE

CANCEL

Equivalent [REST](#) or [command line](#)

Google Cloud Platform

Search products and resources

Create a Kubernetes cluster

Cluster basics

NODE POOLS

default-pool

- Nodes
- Security
- Metadata

CLUSTER

Automation

Networking

Security

Metadata

Features

Machine type

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

vCPU

1

Memory

3.75 GB

CPU PLATFORM AND GPU

Boot disk type

Standard persistent disk

Boot disk size (GB)

100

☐ Enable customer-managed encryption for boot disk

Local SSD disks

☐ Enable preemptible nodes

Networking

The cluster settings specify a maximum of 110 Pods per node, but you

CREATE

CANCEL

Equivalent [REST](#) or [command line](#)

Google Cloud Platform

Search products and resources

Create a Kubernetes cluster

Cluster basics

NODE POOLS

default-pool

- Nodes
- Security
- Metadata

CLUSTER

Automation

Networking

Security

Metadata

Features

Networking

Define how applications in this cluster communicate with each other and with the Kubernetes control plane, and how clients can reach them.

☒ Public cluster

☐ Private cluster

Network *

myvpc

Node subnet *

lab1

Advanced networking options

☒ Enable VPC-native traffic routing (uses alias IP)

☒ Automatically create secondary ranges

Pod address range

Maximum Pods per node

CREATE

CANCEL

Equivalent [REST](#) or [command line](#)

Google Cloud Platform yuvi 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
 - Security
 - Metadata
 - Features

☒ Enable VPC-native traffic routing (uses alias IP) ?
☒ Automatically create secondary ranges ?
Pod address range ?
Maximum Pods per node 110 ?
Mask for Pod address range per node: /24
Service address range ?
☐ Enable Intranode visibility ?
Reveals your intranode traffic to Google's networking fabric. To get logs, you need to enable VPC flow logs in the selected subnetwork.
☐ Enable NodeLocal DNSCache Beta ?
☒ Enable HTTP load balancing ?
☐ Enable master authorized networks ?
☐ Enable network policy ?

CREATE CANCEL Equivalent REST or command line

Here, Kubernetes cluster is launched :-

Google Cloud Platform yuvi Search products and resources

Kubernetes Engine Kubernetes clusters + CREATE CLUSTER + DEPLOY REFRESH DELETE SHOW INFO PANEL LEARN

A Kubernetes cluster is a managed group of VM instances for running containerized applications. [Learn more](#)

Filter by label or name

<input type="checkbox"/> Name	Location	Cluster size	Total cores	Total memory	Notifications	Labels
<input checked="" type="checkbox"/> mycluster	asia-southeast1	3	3 vCPUs	11.25 GB		Connect

Now, we also can check this by using CLI from baseOS.


```
Command Prompt

C:\Users\pc>gcloud container clusters get-credentials mycluster --region asia-southeast1 --project yuvi-0702
Fetching cluster endpoint and auth data.
kubeconfig entry generated for mycluster.

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

C:\Users\pc>kubectl get nodes
NAME                                STATUS    ROLES    AGE   VERSION
gke-mycluster-default-pool-c38b15ea-khv0 Ready    <none>    13m   v1.15.12-gke.2
gke-mycluster-default-pool-c4dd5a7f-0s74 Ready    <none>    13m   v1.15.12-gke.2
gke-mycluster-default-pool-f3f710bb-w49b Ready    <none>    13m   v1.15.12-gke.2

C:\Users\pc>_
```

Now, launching wordpress on the top of this kubernetes cluster :-

```
C:\Users\pc>kubectl get service
NAME      TYPE        CLUSTER-IP    EXTERNAL-IP    PORT(S)    AGE
kubernetes ClusterIP  10.12.0.1      <none>         443/TCP        43m

C:\Users\pc>kubectl create deployment wp --image=wordpress
deployment.apps/wp created

C:\Users\pc>kubectl get pods
NAME                READY    STATUS    RESTARTS   AGE
wp-f96954c76-74pg7  1/1      Running   0           30s

C:\Users\pc>_
```

At that moment there is no LoadBalancer, but as soon as you expose the pod running on the top of kubernetes cluster, a LoadBalancer will create automatically.

```
Command Prompt

C:\Users\pc>kubectl expose deployment wp --type=LoadBalancer --port=80
service/wp exposed

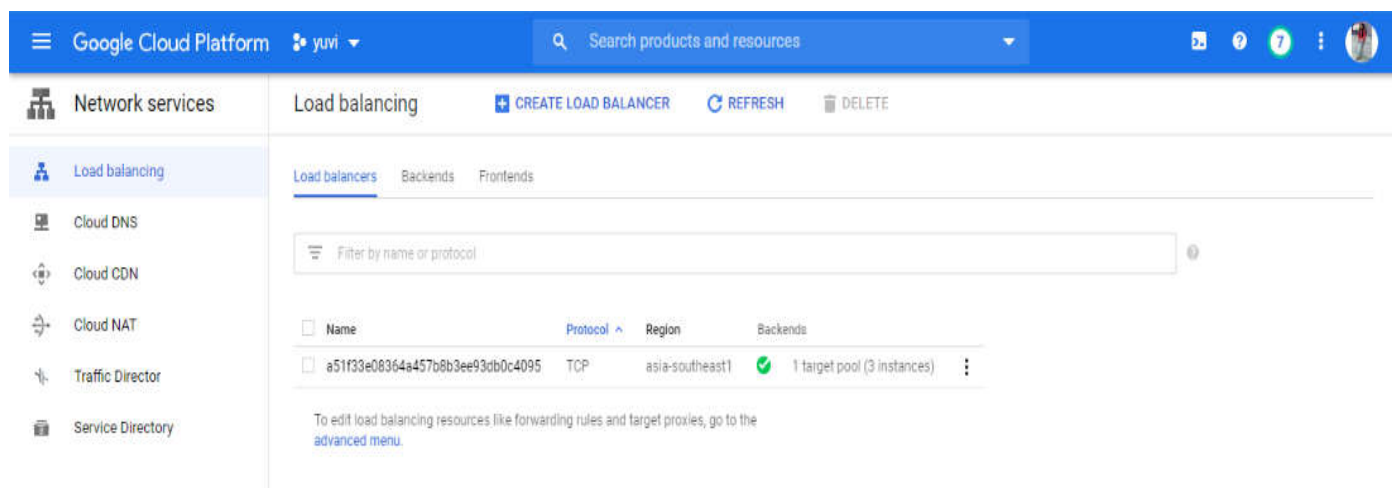
C:\Users\pc>kubectl get service
NAME      TYPE        CLUSTER-IP    EXTERNAL-IP    PORT(S)    AGE
kubernetes ClusterIP  10.12.0.1      <none>         443/TCP        49m
wp        LoadBalancer 10.12.0.62     <pending>      80:30990/TCP 40s

C:\Users\pc>kubectl get service
NAME      TYPE        CLUSTER-IP    EXTERNAL-IP    PORT(S)    AGE
kubernetes ClusterIP  10.12.0.1      <none>         443/TCP        50m
wp        LoadBalancer 10.12.0.62     35.197.140.127 80:30990/TCP 88s

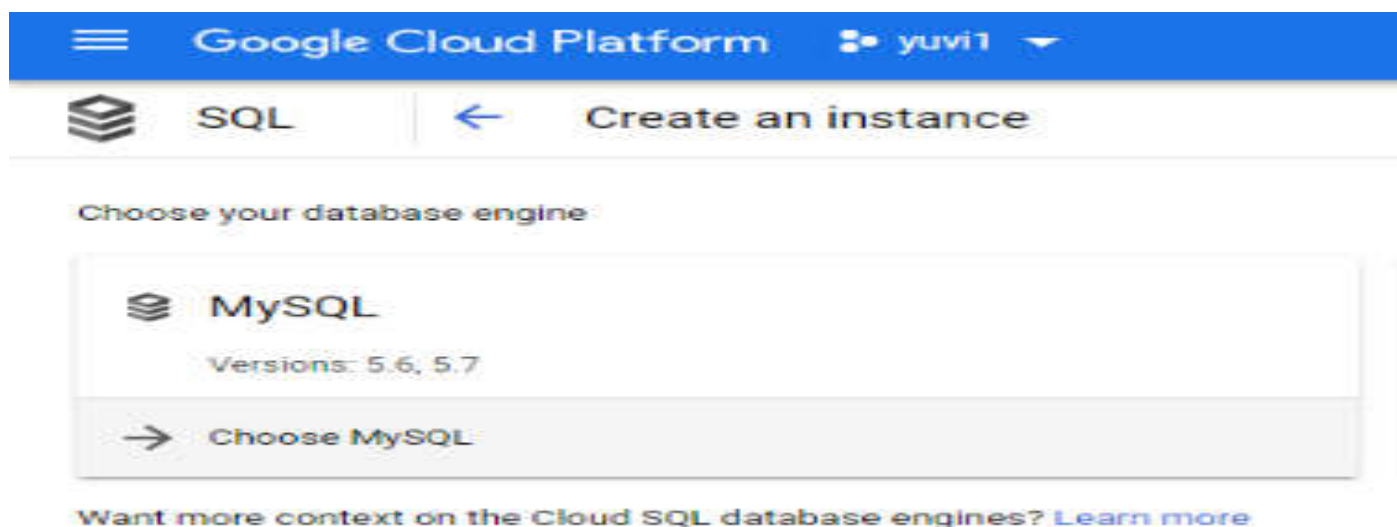
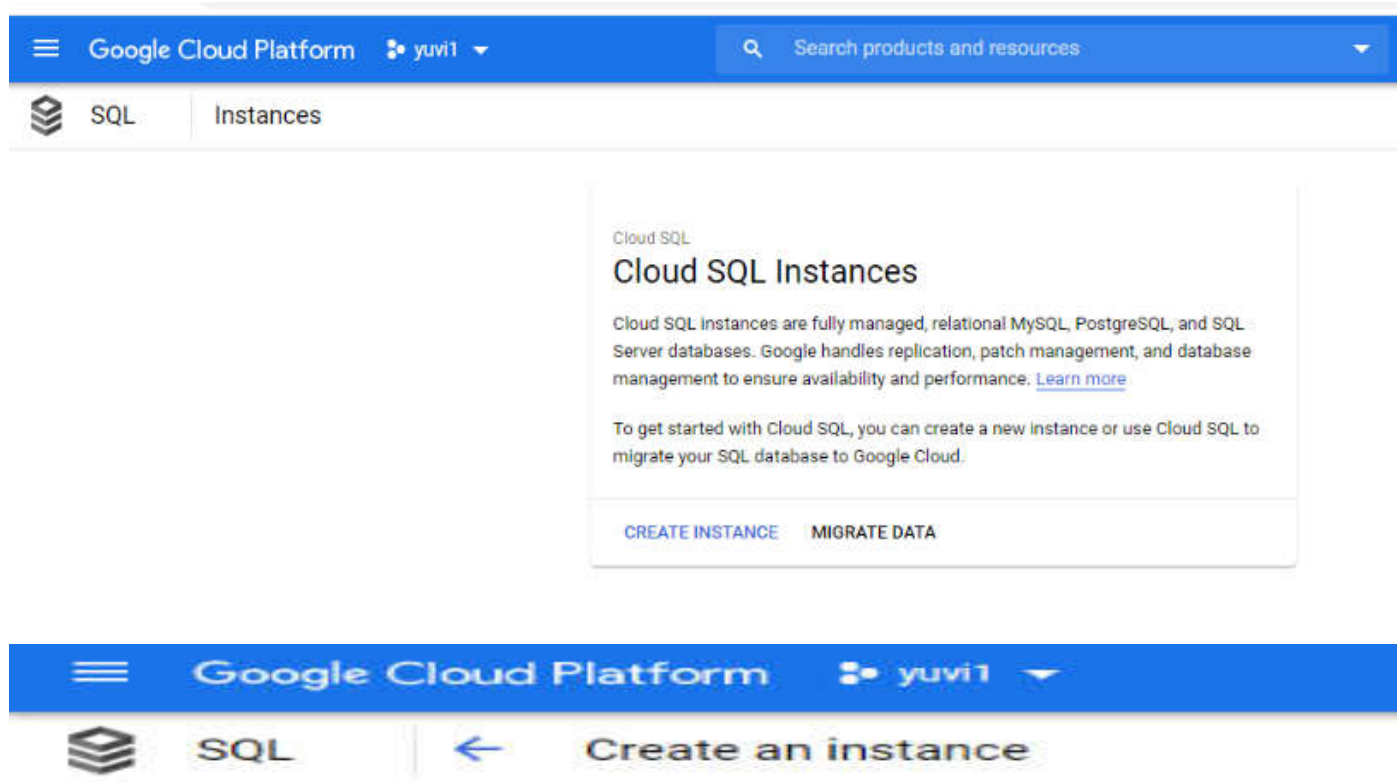
C:\Users\pc>kubectl get pods -o wide
NAME                READY    STATUS    RESTARTS   AGE   IP        NODE
wp-f96954c76-74pg7  1/1      Running   0           4m53s  10.8.0.8  gke-mycluster-default-pool-c38b15ea-khv0

C:\Users\pc>
```

LoadBalancer is created



Creation of SQL server in us-east1 region in other project :-



Google Cloud Platform

yuvi1

Search products and resources

SQL

Create a MySQL instance

Instance info

Instance ID

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

mydb

Root password

Set a password for the root user. [Learn more](#)

.....

Generate

☐ No password

Location

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

Region

Choice is permanent

us-east1 (South Carolina)

Zone

Can be changed at any time

us-east1-c

Database version

MySQL 5.7

[Show configuration options](#)

Create

Cancel

Here, MySQL Database is created :-

Google Cloud Platform

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Search products and resources

SQL

Users

MASTER INSTANCE

Overview

Connections

Users

Databases

Backups

Replicas

Operations

All instances > mydb

mydb

MySQL 5.7

User accounts enable users and applications to connect to your Cloud SQL instance. [Learn more](#)

+ ADD USER ACCOUNT

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

Add a user to that database,

The screenshot shows the Google Cloud Platform console for a MySQL instance named 'mydb'. On the right, a modal dialog titled 'Add a user account to instance mydb' is open. It contains the following fields and options:

- User name ***: A text input field containing 'preeti'.
- Password (Optional)**: A password input field with masked characters '.....' and a toggle icon.
- Host name ?**: Two radio button options:
 - ☒ Allow any host (%)
 - ☐ Restrict host by IP address or address range
- Buttons**: 'ADD' and 'CANCEL' buttons.
- Text**: 'Users created by using Cloud SQL have the same privileges as the root user. [Learn more](#)'

On the left, the 'Users' tab for instance 'mydb' is visible, showing a table with existing users:

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

This screenshot shows the 'Users' tab for instance 'mydb' after the new user 'preeti' has been added. The table now includes three users:

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

Here, we can access the database:-

The screenshot shows a Cloud Shell terminal window with the following content:

```
CLOUD SHELL
Terminal (yuvi-0207) x +
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to yuvi-0207.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
preetishishodia702@cloudshell:~ (yuvi-0207) $ mysql -h 104.196.156.215 -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 74
Server version: 5.7.25-google-log (Google)

Copyright (c) 2000, 2020, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

MySQL commands

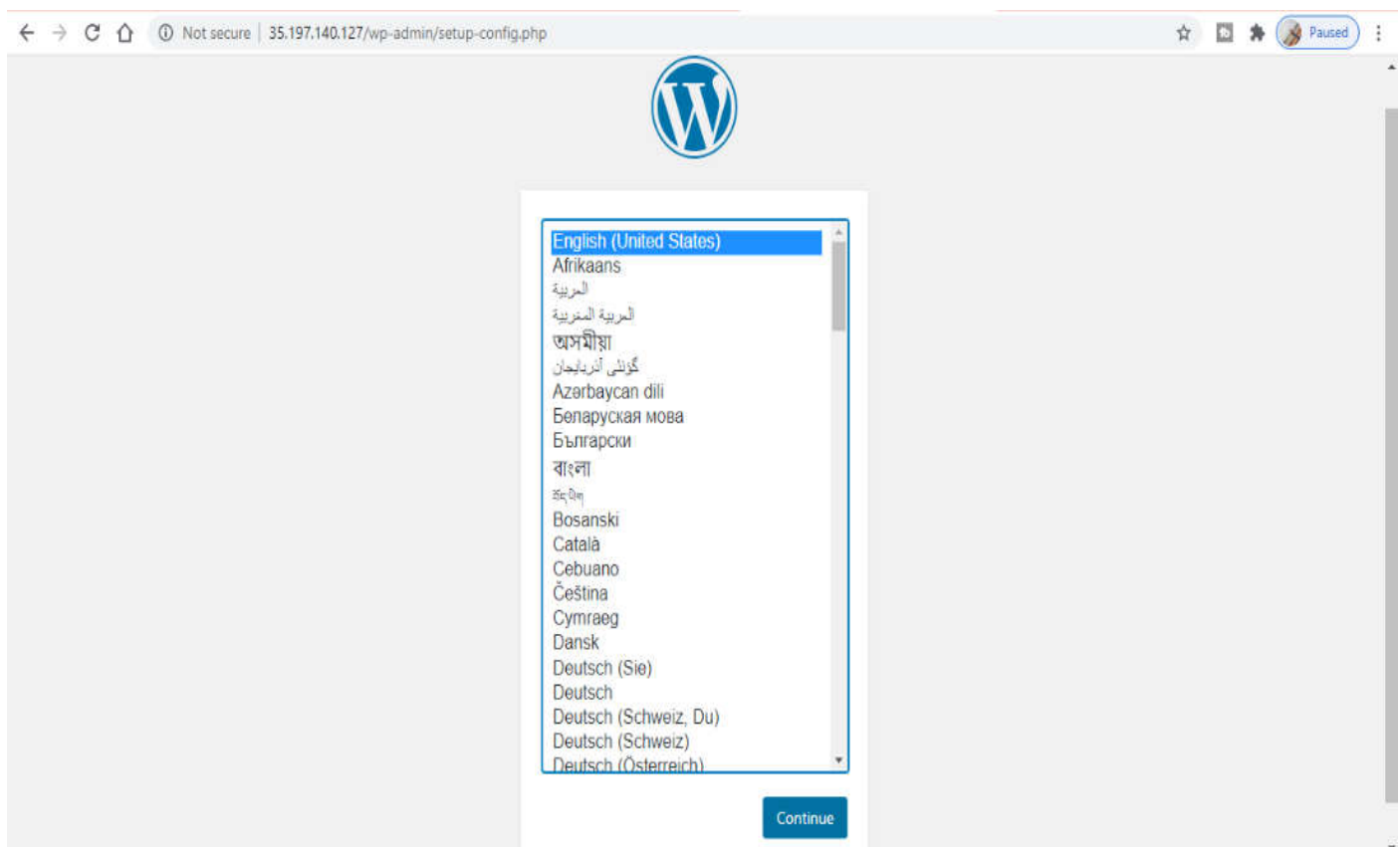
```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0.23 sec)

mysql> create database mydb1
-> ;
Query OK, 1 row affected (0.24 sec)


mysql> use mydb1
Database changed
mysql> show tables;
Empty set (0.22 sec)

mysql> █
```

Wordpress installation and database attachment part:-




← → ↻ 🏠 ⚠ Not secure | 35.197.140.127/wp-admin/setup-config.php?step=1 ☆ 🖨 ⚙ ⏸ Paused ⋮



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

Database Name	<input type="text" value="mydb1"/>	The name of the database you want to use with WordPress.
Username	<input type="text" value="preeti"/>	Your database username.
Password	<input type="password" value="•••••"/>	Your database password.
Database Host	<input type="text" value="104.196.156.215"/>	You should be able to get this info from your web host, if localhost doesn't work.
Table Prefix	<input type="text" value="wp_"/>	If you want to run multiple WordPress installations in a single database, change this.

← → ↻ 🏠 ⓘ Not secure | 35.197.140.127/wp-admin/setup-config.php?step=2 ☆ 🖨 ⚙ ⏸ Paused ⋮



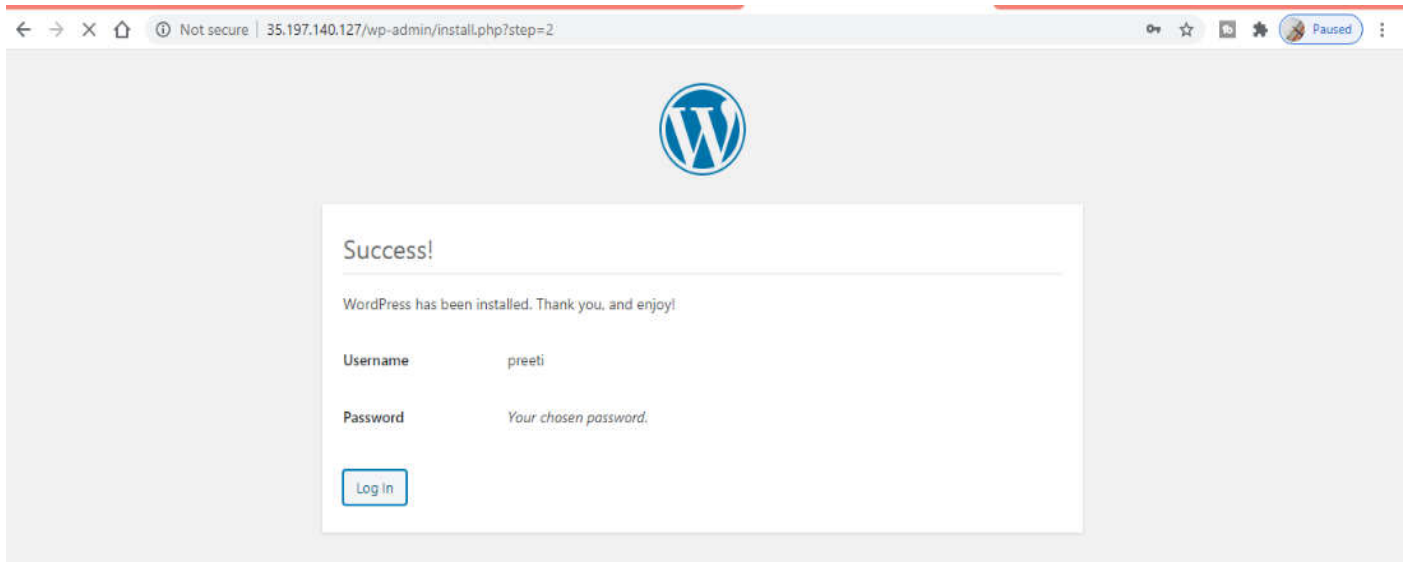
All right, sparky! You've made it through this part of the installation, WordPress can now communicate with your database. If you are ready, time now to...

← → ↻ 🏠 ⚠ Not secure | 35.197.140.127/wp-admin/install.php?language=en_US ☆ 🖨 ⚙ ⏸ Paused ⋮

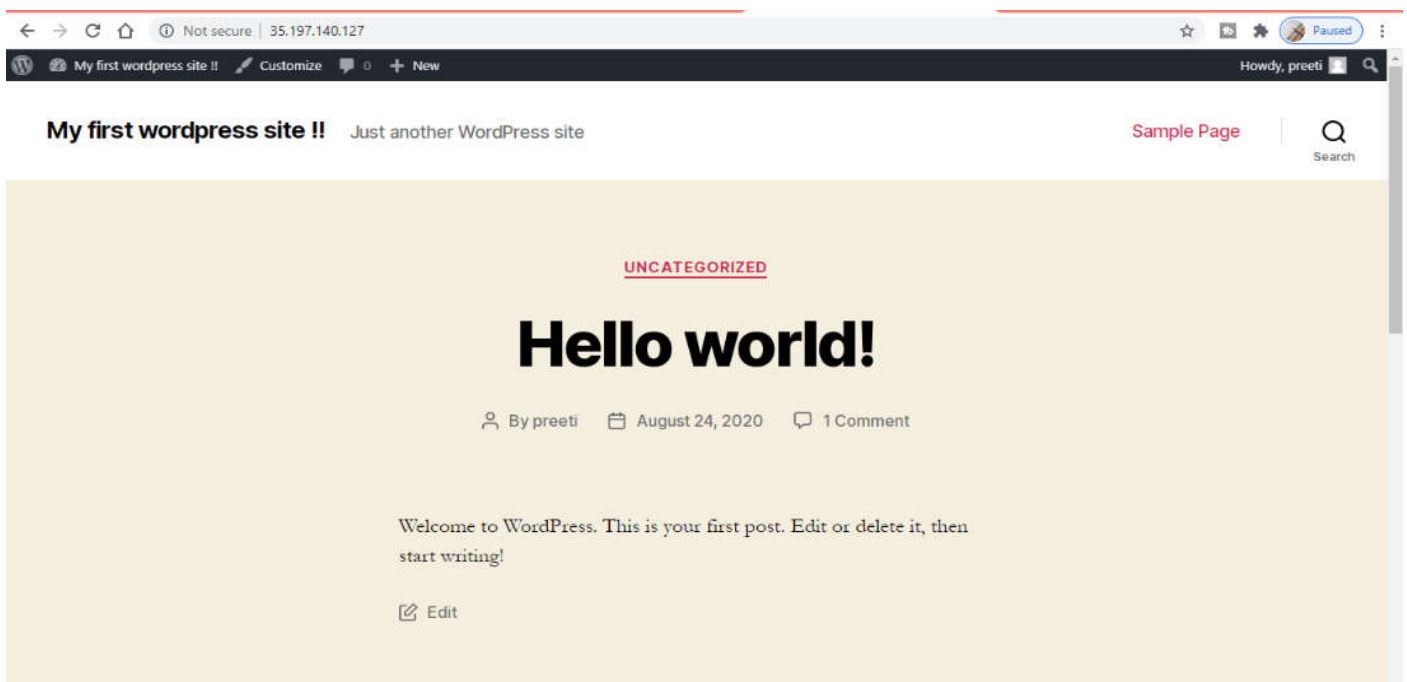
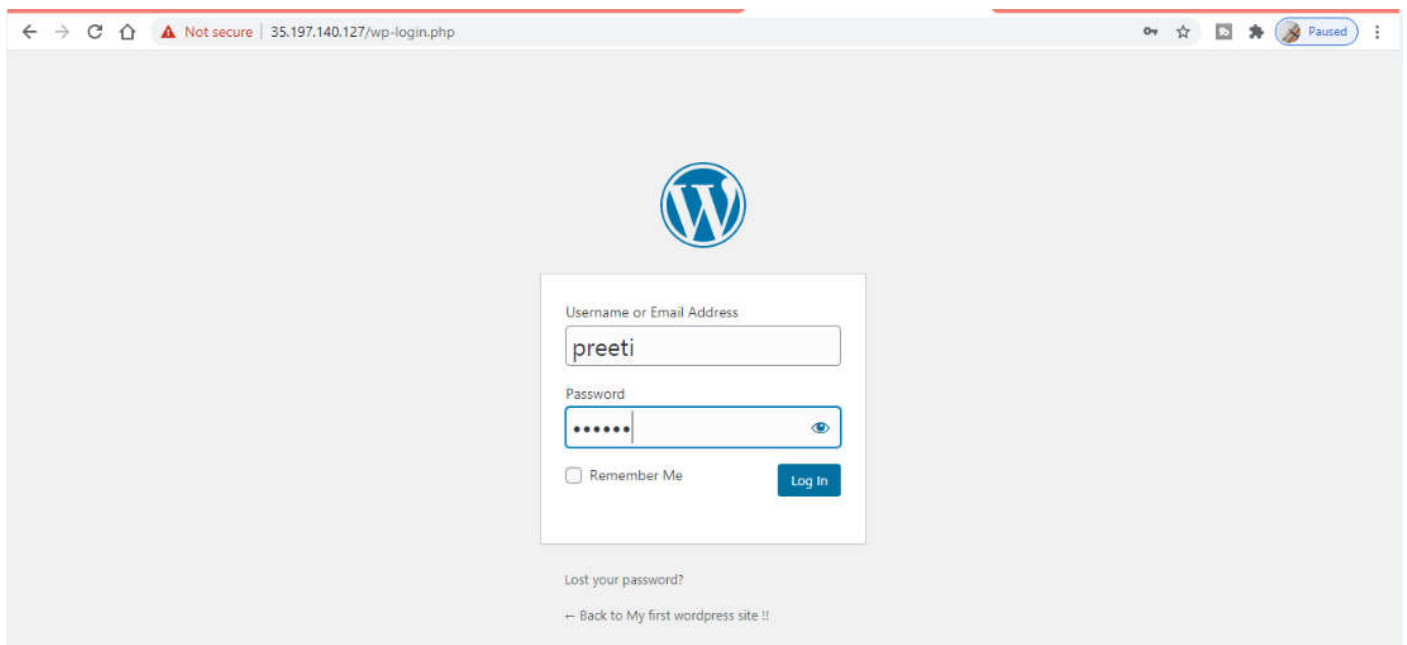
Information needed

Please provide the following information. Don't worry, you can always change these settings later.

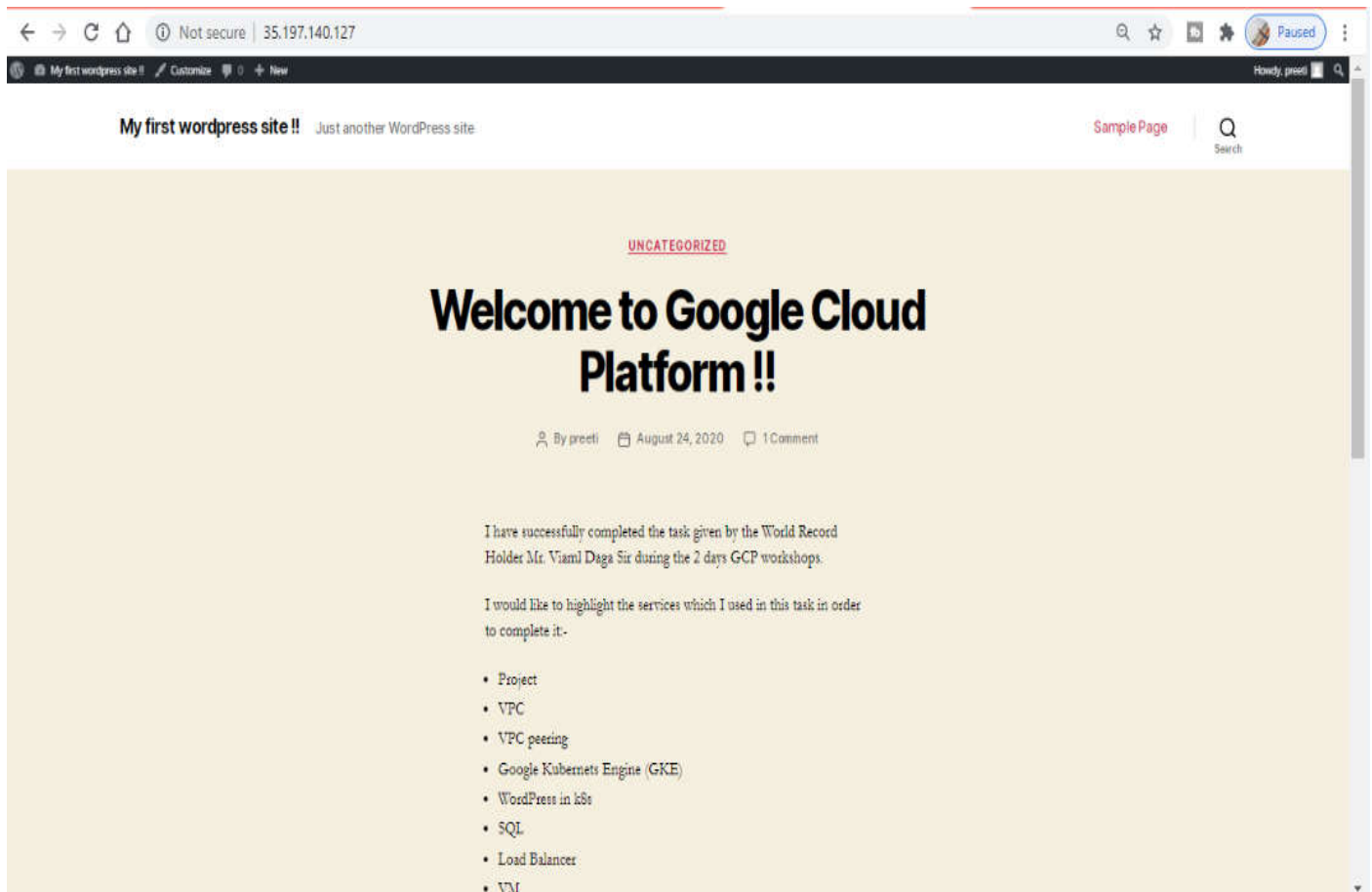
Site Title	<input type="text" value="My first wordpress site !!"/>
Username	<input type="text" value="preeti"/> <small>Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.</small>
Password	<input type="password" value="•••••"/> <input type="button" value="Hide"/> <small>Very weak</small>
Confirm Password	<input checked="" type="checkbox"/> Confirm use of weak password
Your Email	<input type="text" value="preetishishodia702@gmail.com"/> <small>Double-check your email address before continuing.</small>
Search engine visibility	<input type="checkbox"/> Discourage search engines from indexing this site <small>It is up to search engines to honor this request.</small>



Now, login to wordpress site:-



Here, I successfully launched my wordpress site :-



As soon as you connect your database to wordpress site, your database will automatically update :-

```
mysql> use mydb1
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> show tables;
+-----+
| Tables_in_mydb1 |
+-----+
| wp_commentmeta |
| wp_comments    |
| wp_links       |
| wp_options     |
| wp_postmeta    |
| wp_posts       |
| wp_term_relationships |
| wp_term_taxonomy |
| wp_termmeta    |
| wp_terms       |
| wp_usermeta    |
| wp_users       |
+-----+
12 rows in set (0.22 sec)

mysql>
```

Here, I have successfully completed the task given by Vimal Sir.

Extra:-

In addition to this task, I also launched one webserver

Google Cloud Platform

yuvi

Search products and resources

Create an instance

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

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

Name

Name is permanent

webserver

Labels

(Optional)

+ Add label

Region

Region is permanent

asia-southeast1 (Singapore)

Zone

Zone is permanent

asia-southeast1-b

Machine configuration

Machine family

General-purposeMemory-optimizedCompute-optimized

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

1

Memory

3.75 GB

GPUs

-

CPU platform and GPU

Google Cloud Platform

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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

Google Cloud Platform

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Search products and resources

Create an instance

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

Firewall

Add tags and firewall rules to allow specific network traffic from the Internet

☒ Allow HTTP traffic

☒ Allow HTTPS traffic

☒ Management, security, disks, networking, sole tenancy

You will be billed for this instance.

Compute Engine pricing

Create

Cancel

Equivalent REST or command line

Create some firewall rules also :-

Google Cloud Platform

yuvi

Search products and resources

VPC network

Create a firewall rule

VPC networks

External IP addresses

Firewall

Routes

VPC network peering

Shared VPC

Serverless VPC access

Packet mirroring

Firewall rules control incoming or outgoing traffic to an instance. By default, incoming traffic from outside your network is blocked. [Learn more](#)

Name *

allowhttp

Lowercase letters, numbers, hyphens allowed

Description

Logs

Turning on firewall logs can generate a large number of logs which can increase costs in Stackdriver. [Learn more](#)

☐ On

☒ Off

Network *

default

Priority *

1000

Priority can be 0 - 65535 [Check priority of other firewall rules](#)

Direction of traffic

☒ Ingress

☐ Egress

Google Cloud Platform

yuvi

Search products and resources

VPC network

VPC networks

External IP addresses

Firewall

Routes

VPC network peering

Shared VPC

Serverless VPC access

Packet mirroring

Create a firewall rule

Direction of traffic ?
☒ Ingress
☐ Egress

Action on match ?
☒ Allow
☐ Deny

Targets
All instances in the network

Source filter
IP ranges

Source IP ranges *
0.0.0.0/0 for example, 0.0.0.0/0, 192.168.2.0/24

Second source filter
None

Protocols and ports ?
☐ Allow all
☒ Specified protocols and ports

☒ tcp : 80

Google Cloud Platform

yuvi

Search products and resources

VPC network

VPC networks

External IP addresses

Firewall

Routes

VPC network peering

Shared VPC

Serverless VPC access

Packet mirroring

Create a firewall rule

Source IP ranges *
0.0.0.0/0 for example, 0.0.0.0/0, 192.168.2.0/24

Second source filter
None

Protocols and ports ?
☐ Allow all
☒ Specified protocols and ports

☒ tcp : 80

☐ udp : all

☐ Other protocols
protocols, comma separated, e.g. ah, sctp

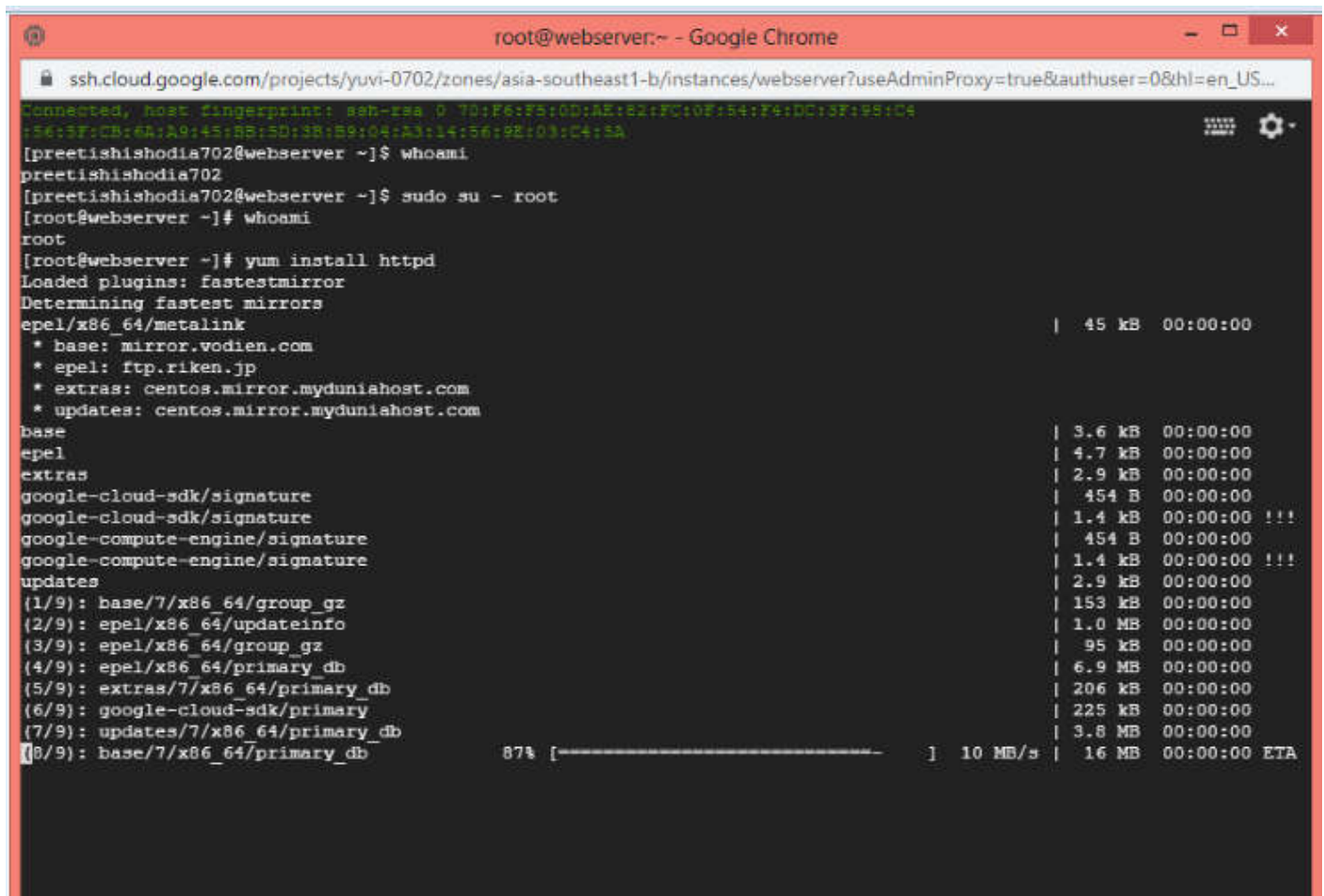
DISABLE RULE

CREATE

CANCEL

Equivalent [REST](#) or [command line](#)

VM (webserver) is launched successfully :-




```
root@webserver:~ - Google Chrome
ssh.cloud.google.com/projects/yuvi-0702/zones/asia-southeast1-b/instances/webserver?useAdminProxy=true&authuser=0&hl=en_US...

--> Package apr.x86_64 0:1.4.8-5.el7 will be installed
--> Package apr-util.x86_64 0:1.5.2-6.el7 will be installed
--> Package httpd-tools.x86_64 0:2.4.6-93.el7.centos will be installed
--> Package mailcap.noarch 0:2.1.41-2.el7 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

Package Arch Version Repository Size
Installing:
httpd x86_64 2.4.6-93.el7.centos base 2.7 M
Installing for dependencies:
apr x86_64 1.4.8-5.el7 base 103 k
apr-util x86_64 1.5.2-6.el7 base 92 k
httpd-tools x86_64 2.4.6-93.el7.centos base 92 k
mailcap noarch 2.1.41-2.el7 base 31 k

Transaction Summary
Install 1 Package (+4 Dependent packages)

Total download size: 3.0 M
Installed size: 10 M
Is this ok [y/d/N]: y
Downloading packages:
(1/5): apr-1.4.8-5.el7.x86_64.rpm | 103 kB 00:00:00
(2/5): apr-util-1.5.2-6.el7.x86_64.rpm | 92 kB 00:00:00
(3/5): httpd-tools-2.4.6-93.el7.centos.x86_64.rpm | 92 kB 00:00:00
(4/5): mailcap-2.1.41-2.el7.noarch.rpm | 31 kB 00:00:00
(5/5): httpd-2.4.6-93.el7.centos.x86_64.rpm | 2.7 MB 00:00:00
Total 5.0 MB/s | 3.0 MB 00:00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Installing : apr-1.4.8-5.el7.x86_64 1/5
Installing : apr-util-1.5.2-6.el7.x86_64 2/5
Installing : httpd-tools-2.4.6-93.el7.centos.x86_64 3/5
Installing : mailcap-2.1.41-2.el7.noarch 4/5
Installing : httpd-2.4.6-93.el7.centos.x86_64 [#####] 5/5
```

```
root@webserver:/var/www/html - Google Chrome
ssh.cloud.google.com/projects/yuvi-0702/zones/asia-southeast1-b/instances/webserver?useAdminProxy=true&authuser=0&hl=en_US...

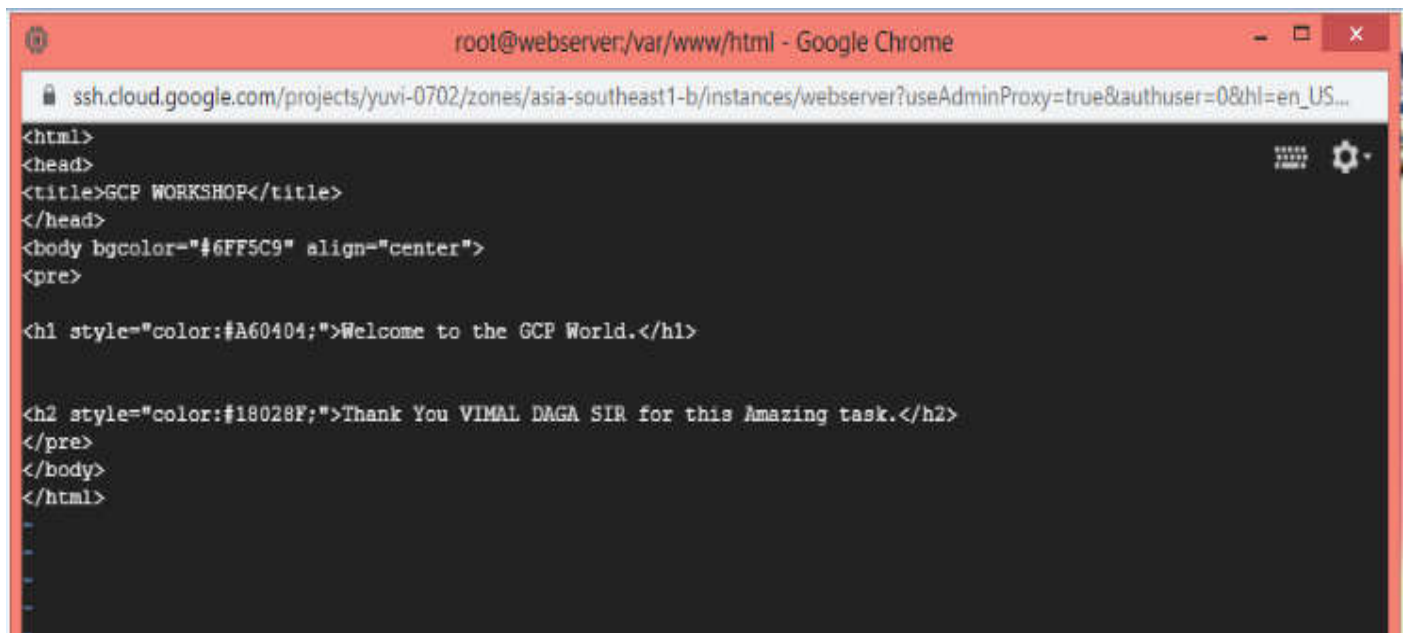
Installed size: 10 M
Is this ok [y/d/N]: y
Downloading packages:
(1/5): apr-1.4.8-5.el7.x86_64.rpm | 103 kB 00:00:00
(2/5): apr-util-1.5.2-6.el7.x86_64.rpm | 92 kB 00:00:00
(3/5): httpd-tools-2.4.6-93.el7.centos.x86_64.rpm | 92 kB 00:00:00
(4/5): mailcap-2.1.41-2.el7.noarch.rpm | 31 kB 00:00:00
(5/5): httpd-2.4.6-93.el7.centos.x86_64.rpm | 2.7 MB 00:00:00
Total 5.0 MB/s | 3.0 MB 00:00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Installing : apr-1.4.8-5.el7.x86_64 1/5
Installing : apr-util-1.5.2-6.el7.x86_64 2/5
Installing : httpd-tools-2.4.6-93.el7.centos.x86_64 3/5
Installing : mailcap-2.1.41-2.el7.noarch 4/5
Installing : httpd-2.4.6-93.el7.centos.x86_64 5/5
Verifying : apr-1.4.8-5.el7.x86_64 1/5
Verifying : httpd-tools-2.4.6-93.el7.centos.x86_64 2/5
Verifying : mailcap-2.1.41-2.el7.noarch 3/5
Verifying : httpd-2.4.6-93.el7.centos.x86_64 4/5
Verifying : apr-util-1.5.2-6.el7.x86_64 5/5

Installed:
httpd.x86_64 0:2.4.6-93.el7.centos

Dependency Installed:
apr.x86_64 0:1.4.8-5.el7 apr-util.x86_64 0:1.5.2-6.el7 httpd-tools.x86_64 0:2.4.6-93.el7.centos
mailcap.noarch 0:2.1.41-2.el7

Complete!
[root@webserver ~]# cd /var/www/html/
[root@webserver html]# ls
[root@webserver html]# vi index.html
[root@webserver html]# ls
index.html
[root@webserver html]# systemctl start httpd
[root@webserver html]# systemctl enable httpd
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.
[root@webserver html]#
```

Html code :-



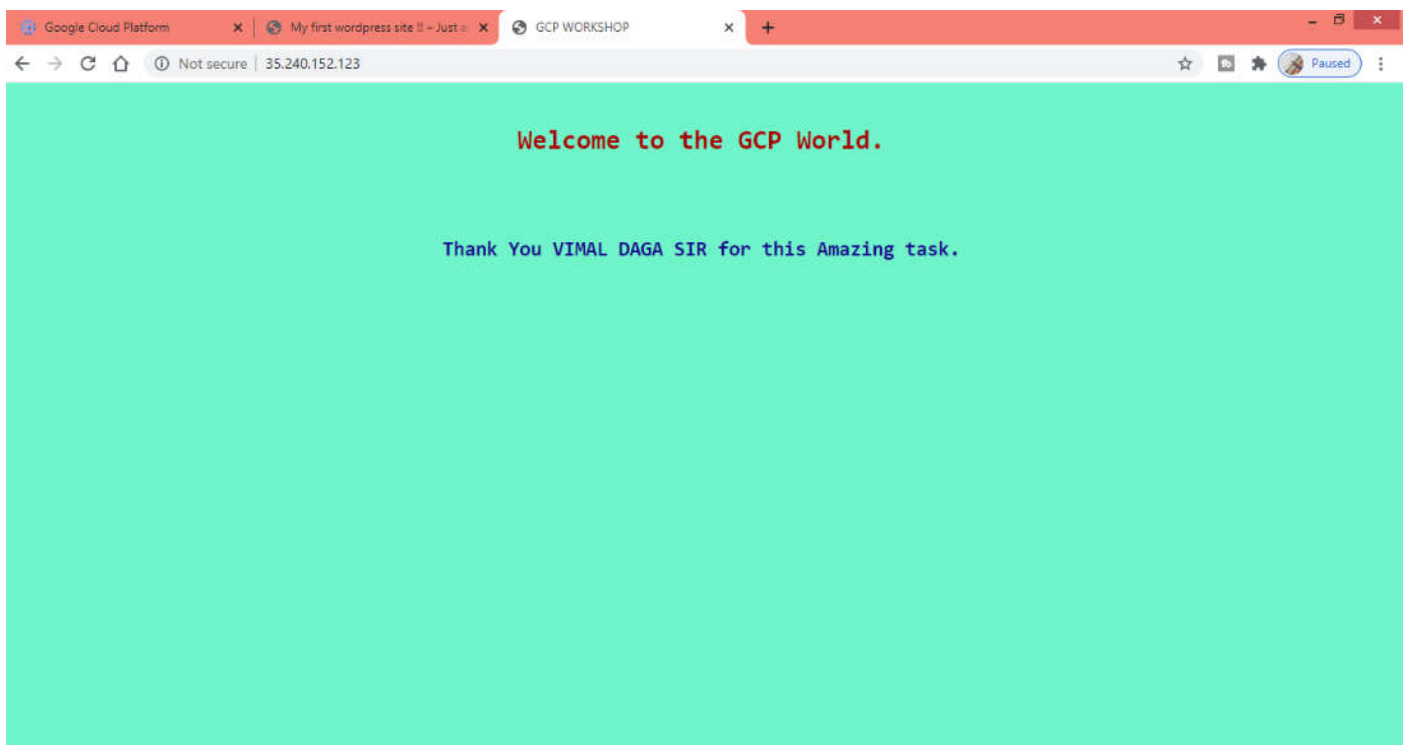
The screenshot shows a Google Chrome browser window with a terminal interface. The title bar reads "root@webserver:/var/www/html - Google Chrome". The address bar shows the URL "ssh.cloud.google.com/projects/yuvi-0702/zones/asia-southeast1-b/instances/webserver?useAdminProxy=true&authuser=0&hl=en_US...". The terminal content displays the following HTML code:

```
<html>
<head>
<title>GCP WORKSHOP</title>
</head>
<body bgcolor="#6FF5C9" align="center">
<pre>

<h1 style="color:#A60404;">Welcome to the GCP World.</h1>

<h2 style="color:#18028F;">Thank You VIMAL DAGA SIR for this Amazing task.</h2>
</pre>
</body>
</html>
```

This site is working fine :-



THANK YOU !!