

# Setup Guide

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## Google Cloud Platform Account Setup

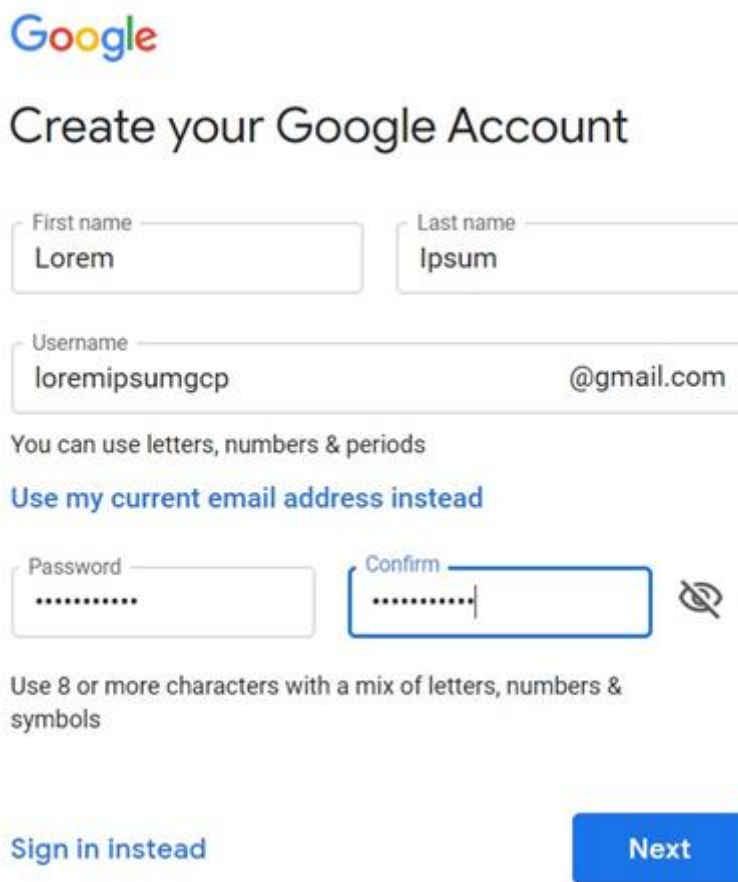
## HOW TO CREATE A GOOGLE CLOUD ACCOUNT?

A GCP account can be created in the below four steps -

- Step 1 - Create a GMAIL account
- Step 2 - Use GMAIL account to log into GCP console
- Step 3 - Add credit card details to enable billing
- Step 4 - Create a project

### Step 1 - Create a GMAIL account

- Go to <https://accounts.google.com/signup/v2/webcreateaccount?flowName=GlifWebSignIn&flowEntry=SignUp> to create a new gmail account
- You may also opt to use your existing Gmail account
- Fill in the details and click next



The screenshot shows the Google Account creation interface. At the top is the Google logo, followed by the heading "Create your Google Account". Below this are input fields for "First name" (containing "Lorem") and "Last name" (containing "Ipsum"). A combined field for "Username" contains "loremipsumgcp" and "@gmail.com". A note states "You can use letters, numbers & periods". A link "Use my current email address instead" is present. Below are "Password" and "Confirm" fields, both masked with dots. A password strength indicator shows "Use 8 or more characters with a mix of letters, numbers & symbols". At the bottom left is a "Sign in instead" link, and at the bottom right is a blue "Next" button.

- Add your mobile number and verify using verification code

- Add details about your recovery address, data of birth and Gender
- Once account setup is complete - go to <https://mail.google.com/mail/u/0/>
- Login as your new account

## Lorem, welcome to Google



loremipsumgcp@gmail.com



Phone number (optional)

[Redacted]

We'll use your number for account security. It won't be visible to others.

Recovery email address (optional)

We'll use it to keep your account secure

Month

[Redacted]

Day

[Redacted]

Year

[Redacted]

Your birthday

Gender

Male



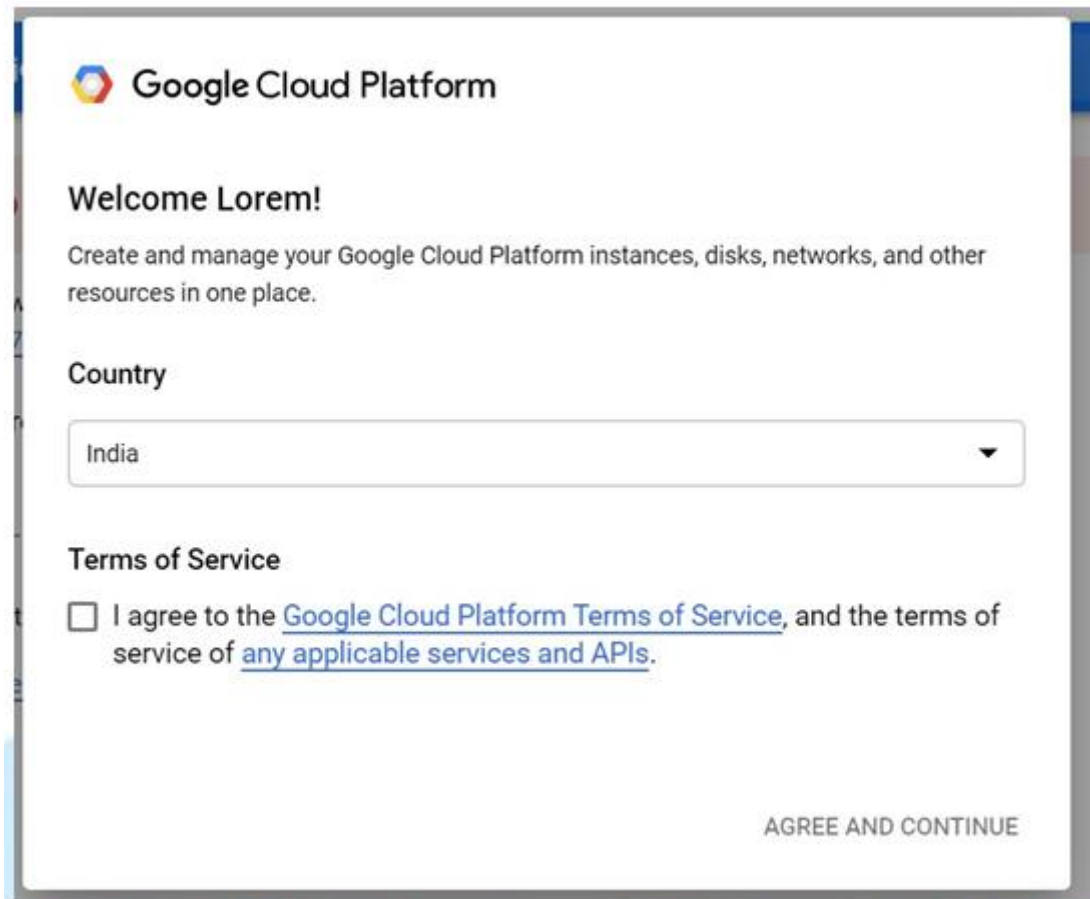
Your personal info is private & safe

- Click Next
- In the next page, click - Yes, I'm in
- In the next page, agree to the T&C

## Step 2 - Log in to GCP console

- On your browser (preferably chrome), navigate to <https://console.cloud.google.com>
- 

- Your screen will show -

A screenshot of the Google Cloud Platform (GCP) console welcome page. The page has a white background with a blue header bar. At the top left is the Google Cloud Platform logo, followed by the text "Google Cloud Platform". Below this is a "Welcome Lorem!" message, followed by a description: "Create and manage your Google Cloud Platform instances, disks, networks, and other resources in one place." There is a "Country" label above a dropdown menu that currently shows "India". Below this is a "Terms of Service" section with a checkbox and the text: "I agree to the [Google Cloud Platform Terms of Service](#), and the terms of service of [any applicable services and APIs](#)." At the bottom right of the form is a button labeled "AGREE AND CONTINUE".

**Google Cloud Platform**

**Welcome Lorem!**

Create and manage your Google Cloud Platform instances, disks, networks, and other resources in one place.

**Country**

India

**Terms of Service**

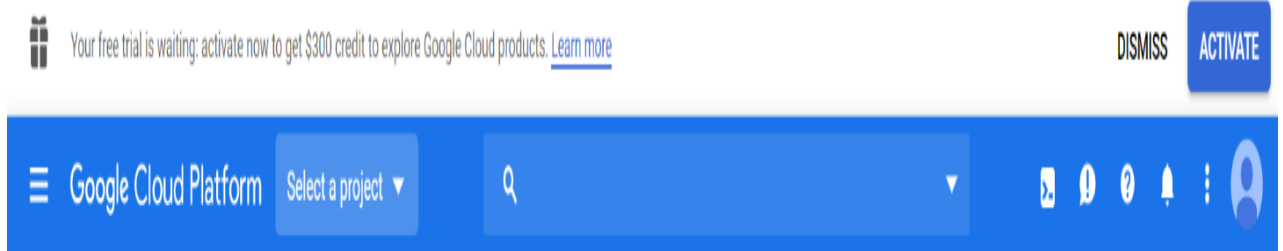
☐ I agree to the [Google Cloud Platform Terms of Service](#), and the terms of service of [any applicable services and APIs](#).

AGREE AND CONTINUE

- Agree the terms and conditions and you now have a free tier account for GCP

### Step 3 - Enable Billing to receive \$300 credits

- On top of your screen you will see the link to enable billing



- Click on the **Activate** Button to go to the next page
- In the next page - select your country and Agree to the T&C and click **Continue**

Try Google Cloud Platform for free

#### Step 1 of 2

Country

India

Terms of Service

☒ I have read and agree to the [Google Cloud Platform Free Trial Terms of Service](#).

Required to continue

CONTINUE

In the next page -

- Change account type to - **Individual**
- Select your Tax status type
- Add your Address
- Add details about your registered ID like SSN/PAN etc.
- Add credit card details

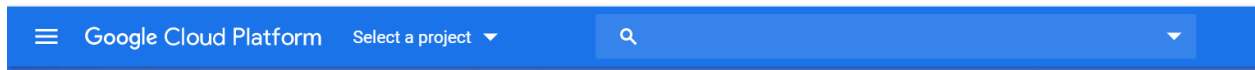
**NOTE** - It is **YOUR** responsibility to ensure that you shut down your GCP resources so that you don't incur unnecessary charges. Google provides you with an evaluation credit of \$300, up to which you will not be charged. Once you cross the limit of \$300 Google will charge you for the resources that you utilize. All cloud providers have the **PAY AS YOU GO** model, which ensures that you are charged only for the resources that you are utilizing.

**NOTE** - Ensure that your card supports auto debit. I have seen a few instances where debit cards were **rejected** as they don't support auto debit.

- Once done - click **Start My Free Trial**

## STEP 4 - Create a new project

- The top blue menu bar has an option of **Select a project**



- Click on **Select a project** dropdown
- By default a new project would be created

### Select a project

 NEW PROJECT

RECENT		ALL
Name	ID	
 My First Project 	able-analyst-256717	

- Select the project **My first project** and you are good to go.

**NOTE** - Google Cloud **Projects** provides a good way to bundle all your resources together. Which means that deleting the project entirely will delete all the resources inside it. This is really helpful when you don't remember what resources have been created and what resources are getting billed. Deleting the project completely will ensure that you are not billed for anything

## Create UBUNTU VM Instance:

Once after setting project successfully & enabled the billing for it.

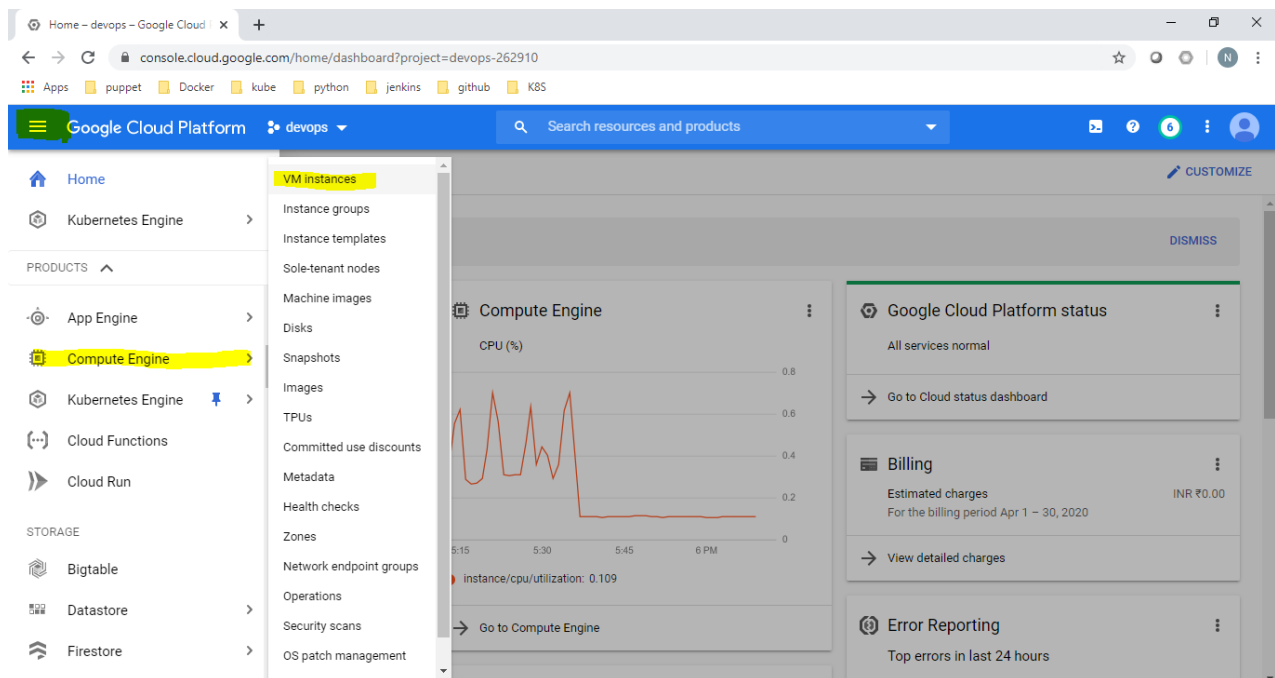
On your google cloud home page, top left corner click 3dash symbol as shown below,

You will see various services offered by google.

Now scroll down list of services until you see **"Compute Engine"** then click on it

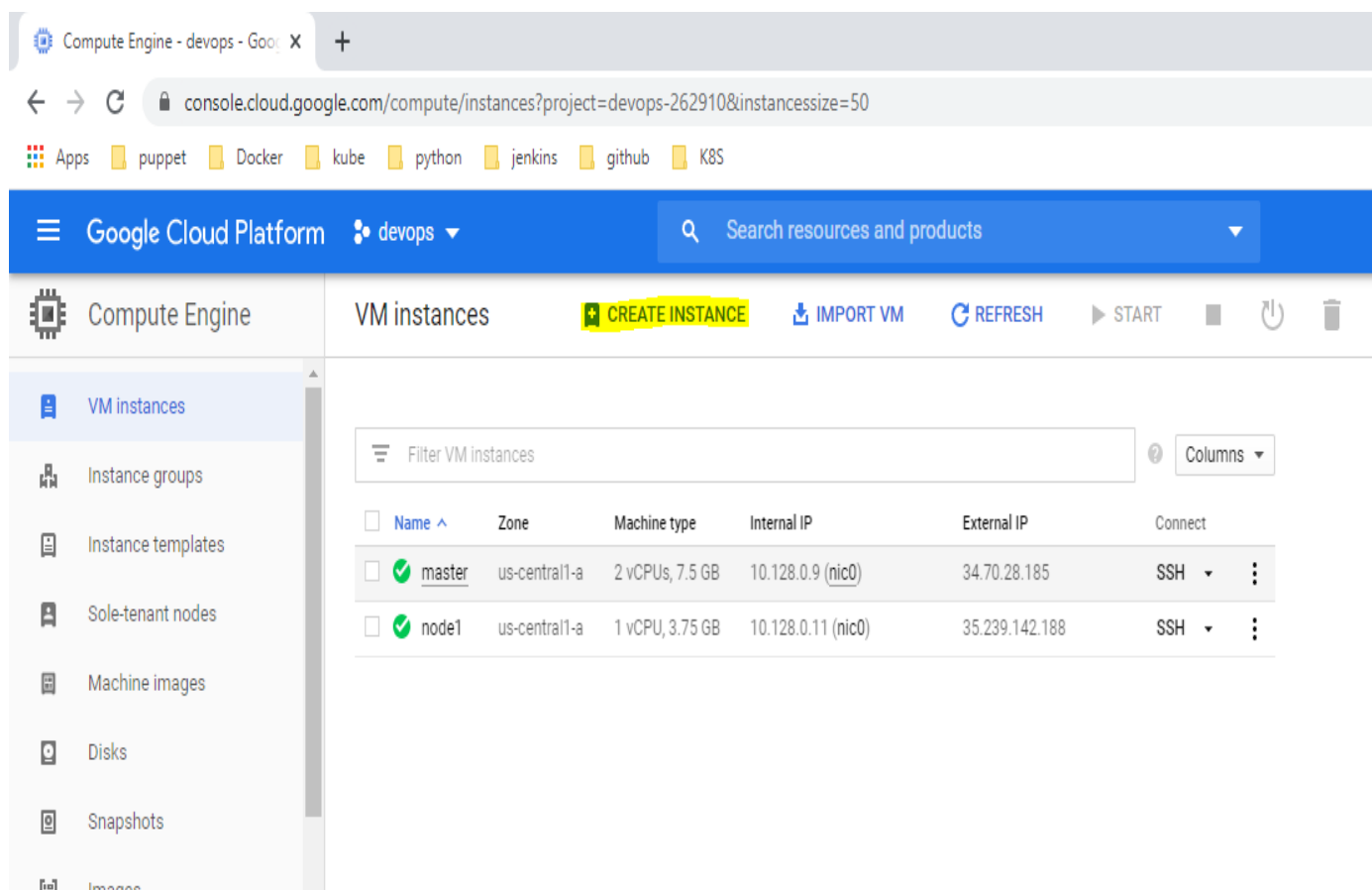
It will pop up with various other services under compute engine as show below

Now click on **"VM Instances"**



**After clicking on VM Instances it will show below screen**

**Now Click on **CREATE INSTANCE** above to create a new instance.**



Compute Engine - devops - Google Cloud Platform

console.cloud.google.com/compute/instances?project=devops-262910&instancessize=50

Apps puppet Docker kube python jenkins github K8S

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Compute Engine

VM instances **CREATE INSTANCE** IMPORT VM REFRESH START

Filter VM instances Columns

Name	Zone	Machine type	Internal IP	External IP	Connect
<input type="checkbox"/> master	us-central1-a	2 vCPUs, 7.5 GB	10.128.0.9 (nic0)	34.70.28.185	SSH
<input type="checkbox"/> node1	us-central1-a	1 vCPU, 3.75 GB	10.128.0.11 (nic0)	35.239.142.188	SSH



After clicking on "CREATE INSTANCE" it will show below screen

**Name:** "type any name" (ex: machine1)

**Series:** N1 (do not change this)

**Machine type:** (choose the appropriate capacity as per the requirement)

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← 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  
machine1

**Labels** ⓘ (Optional)  
+ Add label

**Region** ⓘ  
Region is permanent  
us-central1 (Iowa)

**Zone** ⓘ  
Zone is permanent  
us-central1-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

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

	vCPU	Memory
	1	3.75 GB

⌵ CPU platform and GPU

**Container** ⓘ  
☐ Deploy a container image to this VM instance. [Learn more](#)

Scroll down for other options such As:

**Boot disk:** click on change (now you will see other screen like below right side)

**Operation system:** choose Ubuntu

**Version:** Ubuntu 18.04LTS

**Boot disk type:** leave the default

**Size:** leave the default

Then click on **"select"** at the bottom

Now you should see as below left side Boot disk section shows Ubuntu

**Identity and API access Section:**

**Service account:** Compute Engine default service account (default)

**Access scopes:** Allow default access (default)

Now click on **"create"** at the bottom.

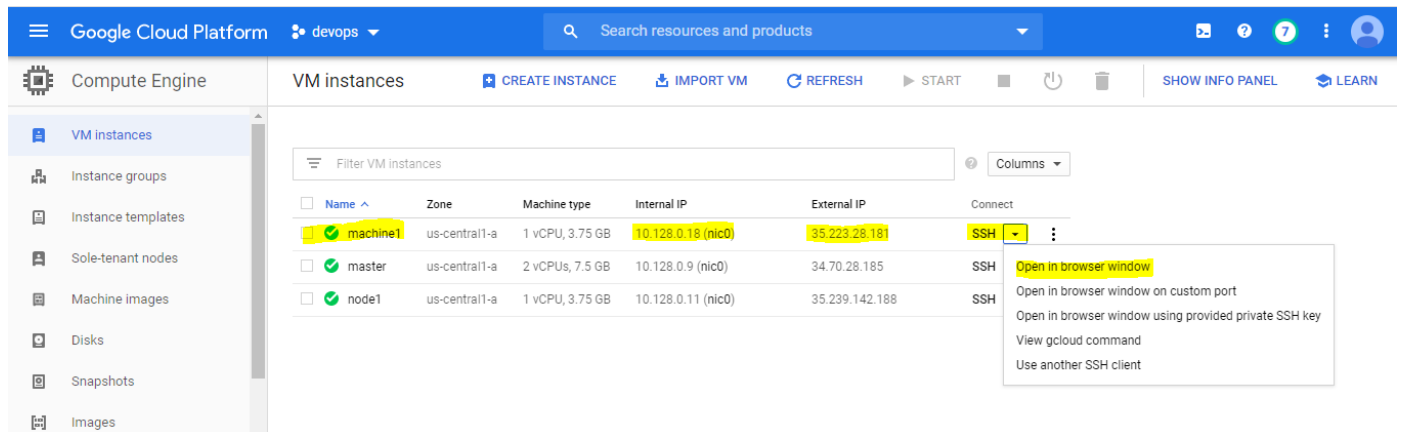
This screenshot shows the left pane of the Google Cloud Platform VM creation wizard. The 'Boot disk' section is highlighted, showing a 'New 10 GB standard persistent disk' with the image 'Ubuntu 18.04 LTS' and a 'Change' button. Below this, the 'Identity and API access' section is visible, with 'Service account' set to 'Compute Engine default service account' and 'Access scopes' set to 'Allow default access'. The 'Firewall' section at the bottom has 'Allow HTTP traffic' and 'Allow HTTPS traffic' checked. At the very bottom, there are 'Create' and 'Cancel' buttons.

This screenshot shows the right pane of the Google Cloud Platform VM creation wizard. The 'Boot disk' section is highlighted, showing a 'Select an image or snapshot to create a boot disk, or attach an existing disk. Can't find what you're looking' message. Below this, the 'Operating system' is set to 'Ubuntu' and the 'Version' is set to 'Ubuntu 18.04 LTS'. The 'Boot disk type' is set to 'Standard persistent disk' and the 'Size (GB)' is set to '10'. At the bottom, there are 'Create' and 'Cancel' buttons.

***Once we click on create you will see below screen.***

***The machine will get ready in couple of minutes & you will see as below highlighted.***

***To login to the machine click on SSH → open in browser window.***



The screenshot shows the Google Cloud Platform interface for VM instances. The left sidebar lists various resources, with 'VM instances' selected. The main panel displays a table of VM instances. The first instance, 'machine1', is highlighted in yellow. The 'SSH' button in the 'Connect' column is also highlighted, and a dropdown menu is open, showing options for connecting to the instance.

Name	Zone	Machine type	Internal IP	External IP	Connect
machine1	us-central1-a	1 vCPU, 3.75 GB	10.128.0.18 (nic0)	35.223.28.181	SSH
master	us-central1-a	2 vCPUs, 7.5 GB	10.128.0.9 (nic0)	34.70.28.185	SSH
node1	us-central1-a	1 vCPU, 3.75 GB	10.128.0.11 (nic0)	35.239.142.188	SSH

***To create more VMs, repeat same process***

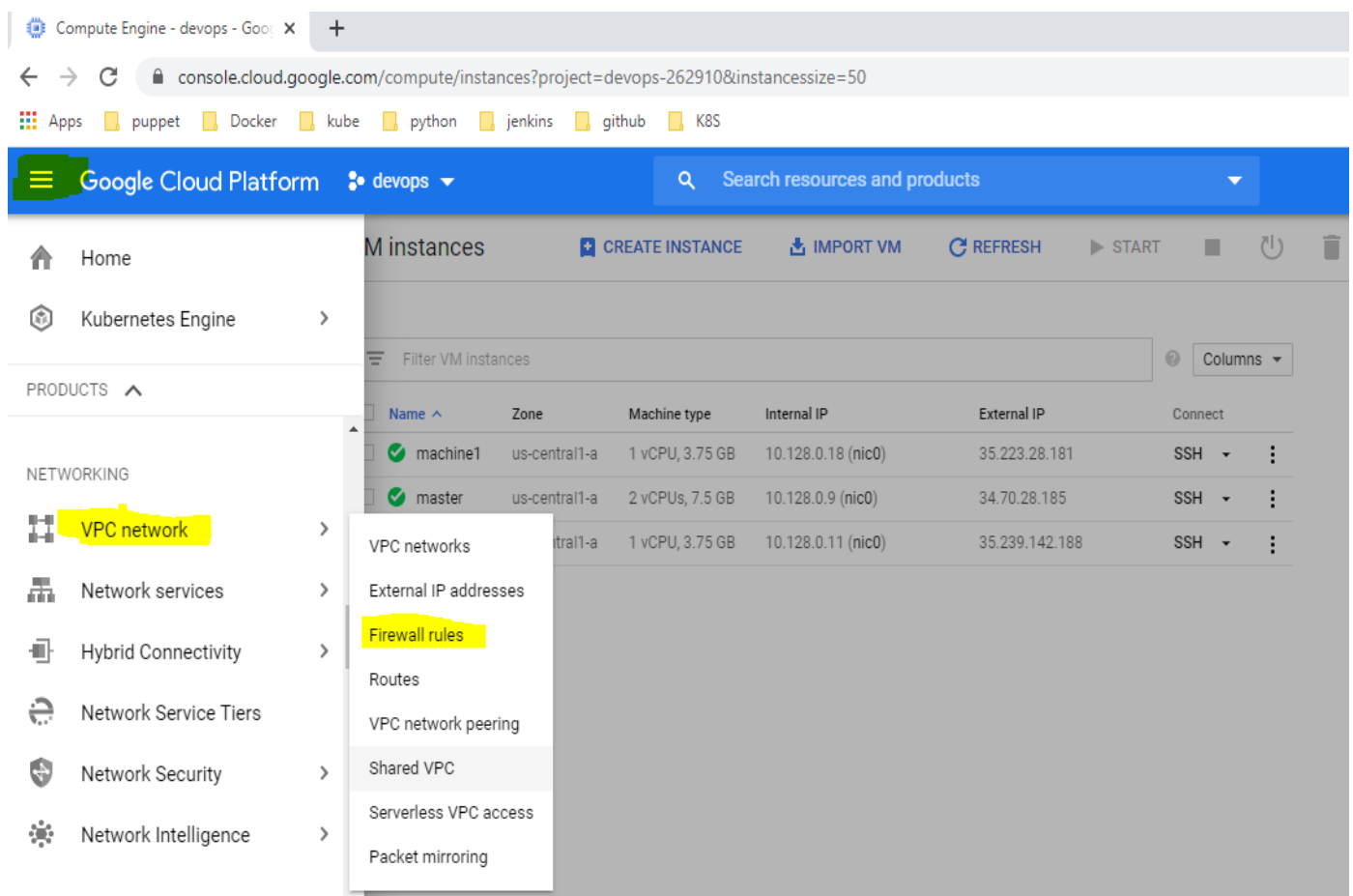
## **Setup Firewall rules, for applications access running on VMs.**

On your google cloud home page, top left corner click 3dash symbol as shown below,  
You will see various services offered by google.

Now scroll down list of services until you see "VPC network" then click on it

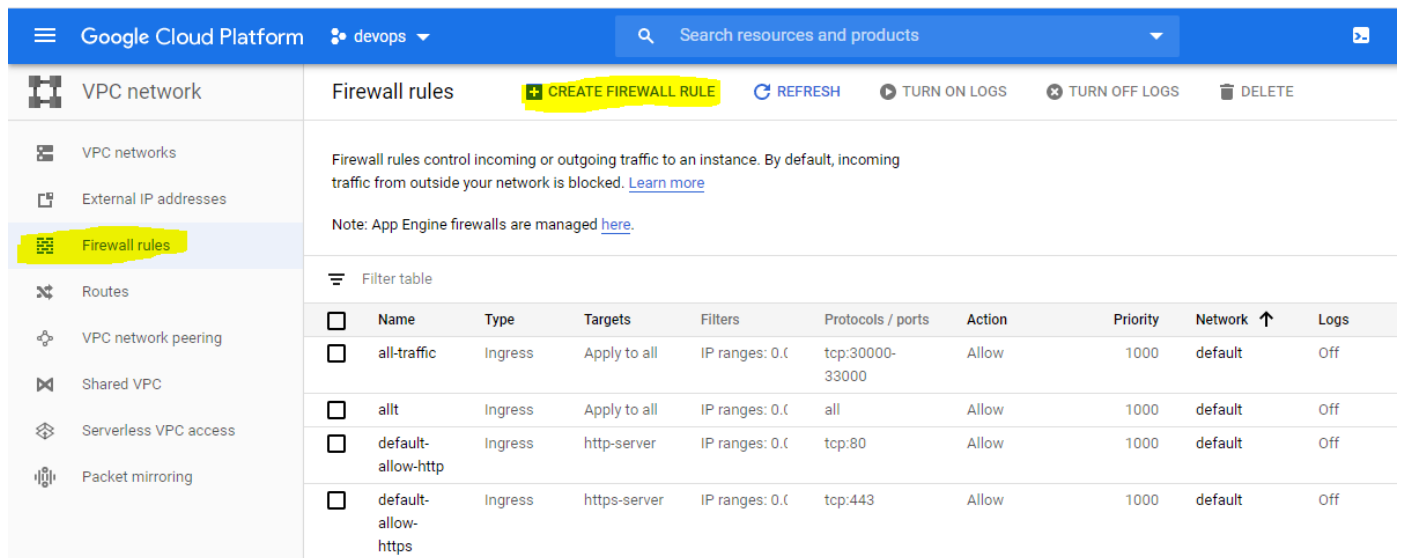
It will pop up with various other services under compute engine as show below

Now click on "Firewall rules"



After clicking on Firewall rules it will show below screen

Now Click on **CREATE FIREWALL RULE** above to create a New rule.

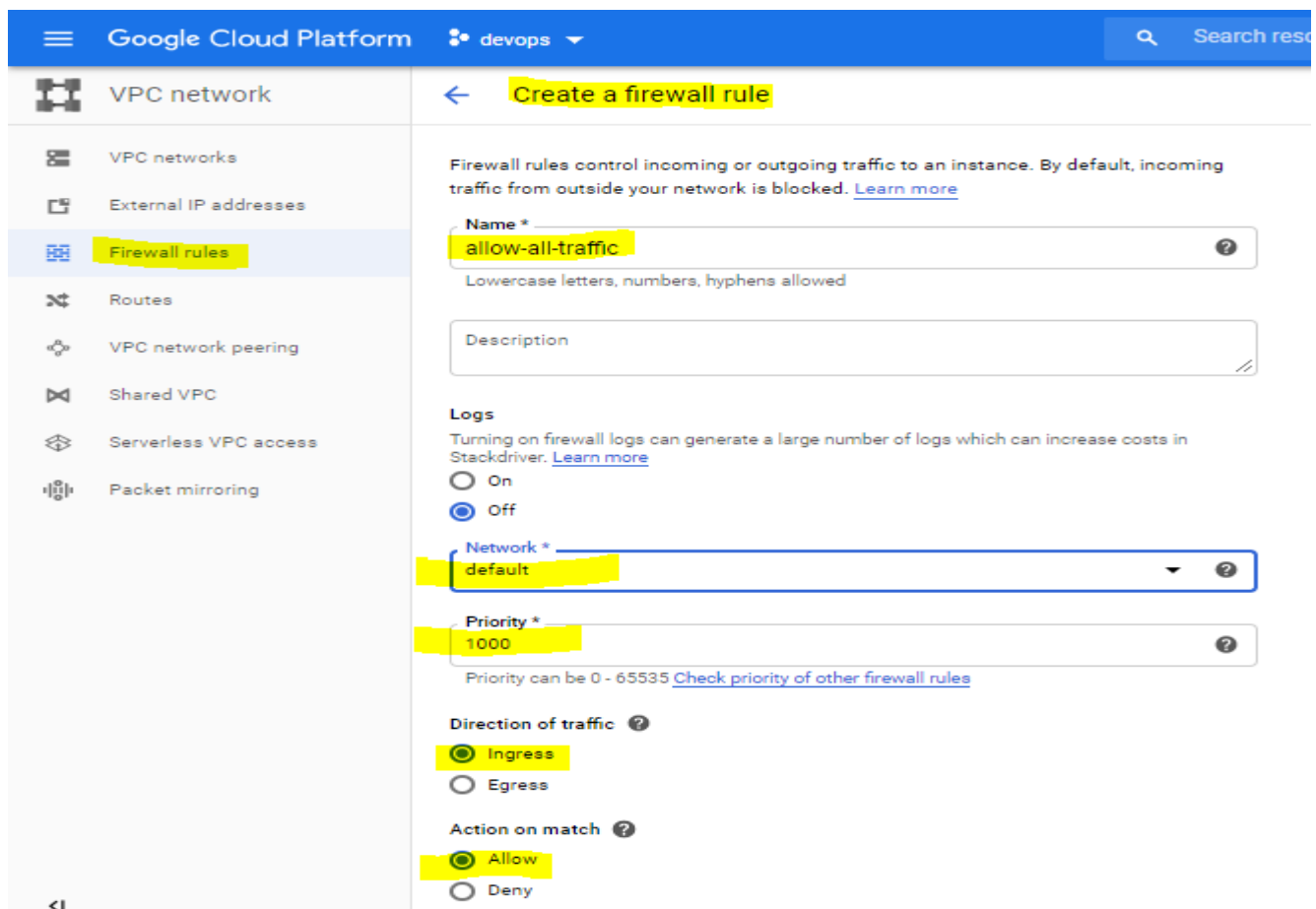


The screenshot shows the Google Cloud Platform interface for Firewall rules. The left sidebar lists VPC network resources, with 'Firewall rules' highlighted. The main panel shows a list of existing firewall rules and a '+ CREATE FIREWALL RULE' button, which is highlighted in yellow. The table below lists the existing rules:

Name	Type	Targets	Filters	Protocols / ports	Action	Priority	Network	Logs
all-traffic	Ingress	Apply to all	IP ranges: 0.0.0.0/0	tcp:30000-33000	Allow	1000	default	Off
allit	Ingress	Apply to all	IP ranges: 0.0.0.0/0	all	Allow	1000	default	Off
default-allow-http	Ingress	http-server	IP ranges: 0.0.0.0/0	tcp:80	Allow	1000	default	Off
default-allow-https	Ingress	https-server	IP ranges: 0.0.0.0/0	tcp:443	Allow	1000	default	Off

Now you will see below screen follow the setting **as highlighted** in screenshot below

And **click on Create** Option at the bottom.



The screenshot shows the 'Create a firewall rule' form in the Google Cloud Platform. The following fields and options are highlighted in yellow:

- Name \***: allow-all-traffic
- Network \***: default
- Priority \***: 1000
- Direction of traffic**: Ingress
- Action on match**: Allow

The form also includes a description field, a logs section (turned off), and a note about priority values (0-65535).

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VPC network

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

### Create a firewall rule

**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

**Enforcement**  
 Determine if your rule is enforced on associated targets  
☒ Enabled  
☐ Disabled

LESS

**CREATE** CANCEL

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

**Now you will see below screen, this setting will enable the all traffic to all VM instances in the default network.**

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Search resources and products

VPC network

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Firewall rules

CREATE FIREWALL RULE REFRESH TURN ON LOGS TURN OFF LOGS DELETE

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

Note: App Engine firewalls are managed [here](#).

Filter table

Name	Type	Targets	Filters	Protocols / ports	Action	Priority	Network	Logs	Hit count	Last hit
all-traffic	Ingress	Apply to all	IP ranges: 0.0.0.0/0	tcp:30000-33000	Allow	1000	default	Off	—	—
<b>allow-all-traffic</b>	Ingress	Apply to all	IP ranges: 0.0.0.0/0	all	Allow	1000	default	Off	—	—
allt	Ingress	Apply to all	IP ranges: 0.0.0.0/0	all	Allow	1000	default	Off	—	—
default-allow-http	Ingress	http-server	IP ranges: 0.0.0.0/0	tcp:80	Allow	1000	default	Off	—	—
default-allow-https	Ingress	https-server	IP ranges: 0.0.0.0/0	tcp:443	Allow	1000	default	Off	—	—
test	Ingress	Apply to all	IP ranges: 0.0.0.0/0	all	Allow	1000	default	Off	—	—