

# Google Cloud Platform Virtual Machine

This document describes instructions for creating and using a Google Cloud Platform virtual machine instance.

A personal Google account is required. You will have to enter your credit card information to create an account (don't worry– you won't be charged).

## Preliminary

Log into the Google Cloud Platform console using your personal Google account.

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

If you don't have a Google account, create one (they cost nothing).

Create a trial account for Google Cloud Platform. Then click the “Go To Console” button on the page above.

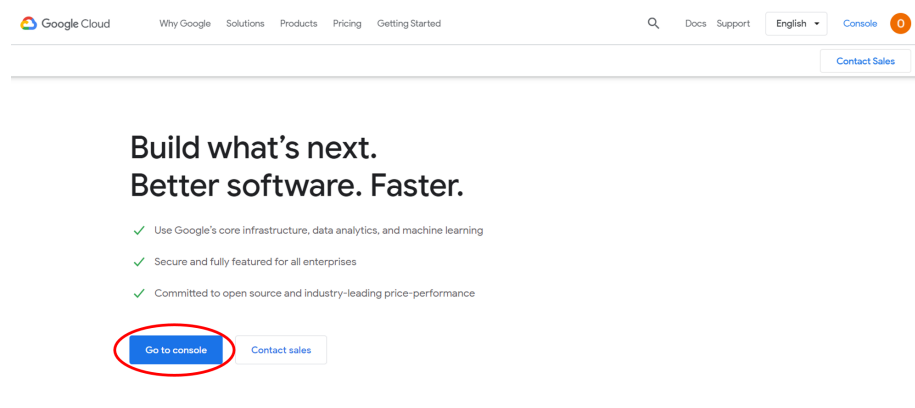


Figure 1: Go To Console

## Configuration

This section describes the process of creating a virtual machine (VM) instance. This VM uses Linux/Ubuntu as an operating system.

### Creating a Google Project

The VM instance requires a Google Project to live under.

To create a new project, click the project drop-down on the top bar.



Figure 2: Project Menu

From the pop-up, click “NEW PROJECT” on the upper-right hand corner.



Figure 3: New Project

Give the project a unique name and use the default settings before clicking the “Create” button.

Google Cloud Platform

## New Project

You have 23 projects remaining in your quota. Request an increase or delete projects. [Learn more](#)

[MANAGE QUOTAS](#)

Project name \*  
my-test-project

Project ID: astute-house-284617. It cannot be changed later. [EDIT](#)

Location \*  
 No organization [BROWSE](#)

Parent organization or folder

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

Figure 4: New Project Form

Once the project is created, navigate to that project from the top menu bar.

Google Cloud Platform

my-vm

Figure 5: Choose Your Project

### Creating Virtual Machine Instance

Once a Google Project is created, from the hamburger menu on the left-hand side of the console, select “Compute Engine” then “VM Instances”.

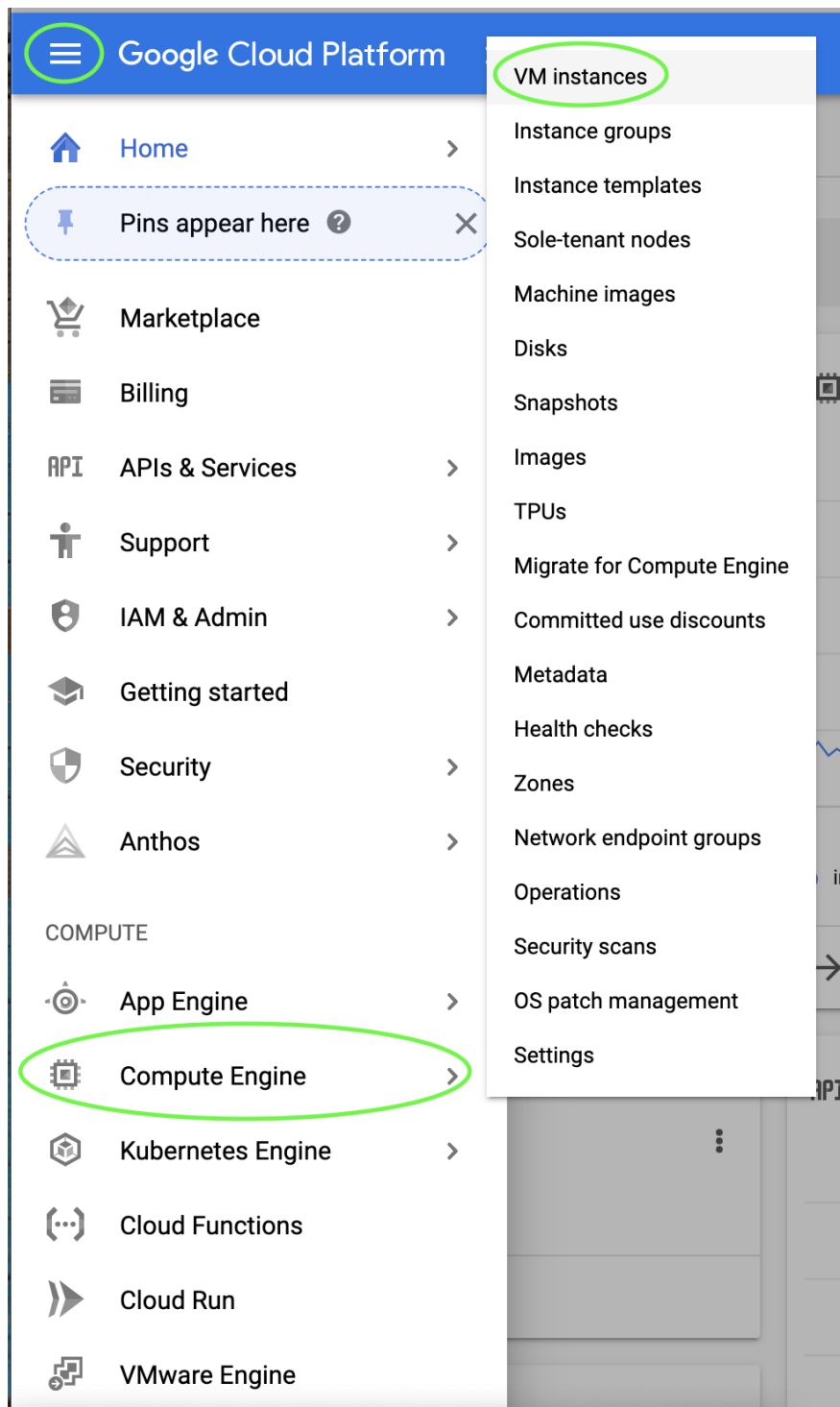


Figure 6: Make VM

Click the button shown to create a new VM instance.

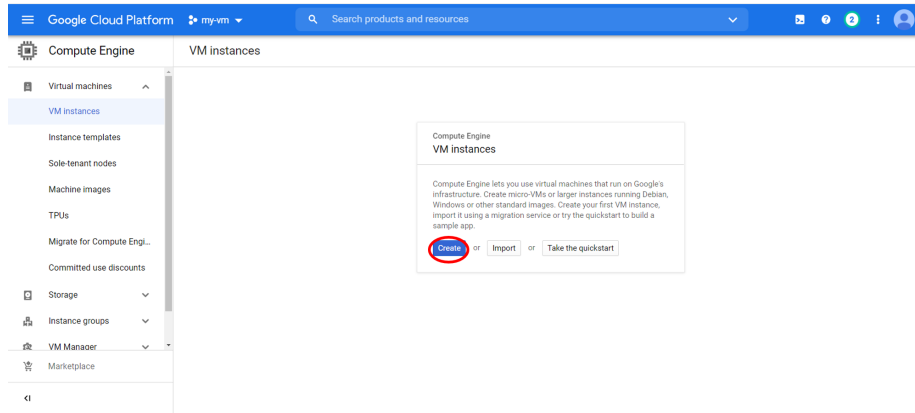


Figure 7: Create Instance

Give the VM instance a unique name, then click “Create”. Use the default settings. **NOTE: Boot Disk must be set to “Debian GNU/Linux 10 (buster)”**

Google Cloud Platform

my-vm

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

test-instance

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

1

Memory

3.75 GB

CPU platform and GPU

Container

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

Boot disk

New 10 GB standard persistent disk

Image

Debian GNU/Linux 10 (buster)

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

Your free trial credit will be used for this VM instance. [GCP Free Tier](#)

Create

Cancel

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

Figure 8: New Instance Form

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## Accessing VM

This section describes the steps necessary to open a remote terminal window in your browser.

To open `ssh` from the browser window, choose the `ssh` button on your VM instance.

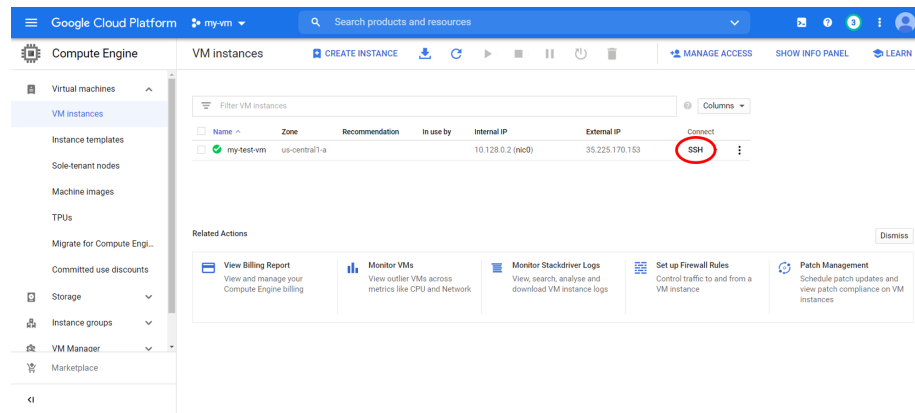
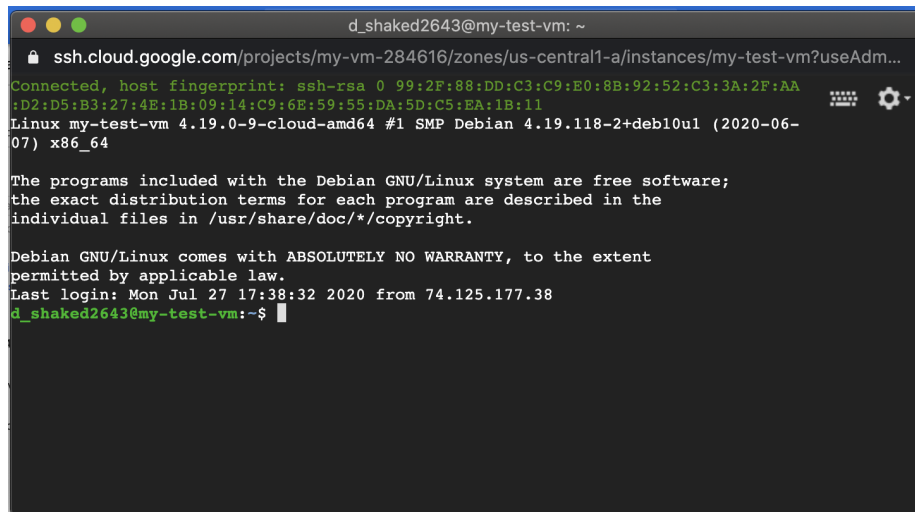


Figure 9: connect to ssh

The resulting terminal window should be used to interact with your VM instance remotely!

A terminal window titled 'd\_shaked2643@my-test-vm: ~' showing an SSH connection to a Google Cloud VM. The window has a dark background with light green and white text. The output shows the SSH connection details, including the host fingerprint and the Debian GNU/Linux version (4.19.0-9-cloud-amd64). The prompt is 'd\_shaked2643@my-test-vm:~\$'.

```
d_shaked2643@my-test-vm: ~  
ssh.cloud.google.com/projects/my-vm-284616/zones/us-central1-a/instances/my-test-vm?useAdm...  
Connected, host fingerprint: ssh-rsa 0 99:2F:88:DD:C3:C9:E0:8B:92:52:C3:3A:2F:AA  
:D2:D5:B3:27:4E:1B:09:14:C9:6E:59:55:DA:5D:C5:EA:1B:11  
Linux my-test-vm 4.19.0-9-cloud-amd64 #1 SMP Debian 4.19.118-2+deb10u1 (2020-06-  
07) x86_64  
  
The programs included with the Debian GNU/Linux system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/*/copyright.  
  
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent  
permitted by applicable law.  
Last login: Mon Jul 27 17:38:32 2020 from 74.125.177.38  
d_shaked2643@my-test-vm:~$
```

Figure 10: Terminal Window

Once you are in the ssh window, run the following command:

```
cd ~ && mkdir -p Desktop Documents Downloads && \  
touch Desktop/{01-pwd.png,02-ls.png,head-tail.png,\  
mkdir-move-cd.png,pipes.png,sample_file.txt,\  
another_file.txt,starting-wsl.png}
```

This will load content into your home folder, making it easier to follow Case 0.4.