

Google Cloud Platform project

Apache Web Server on Google Cloud

By Nouf Al-Homoud

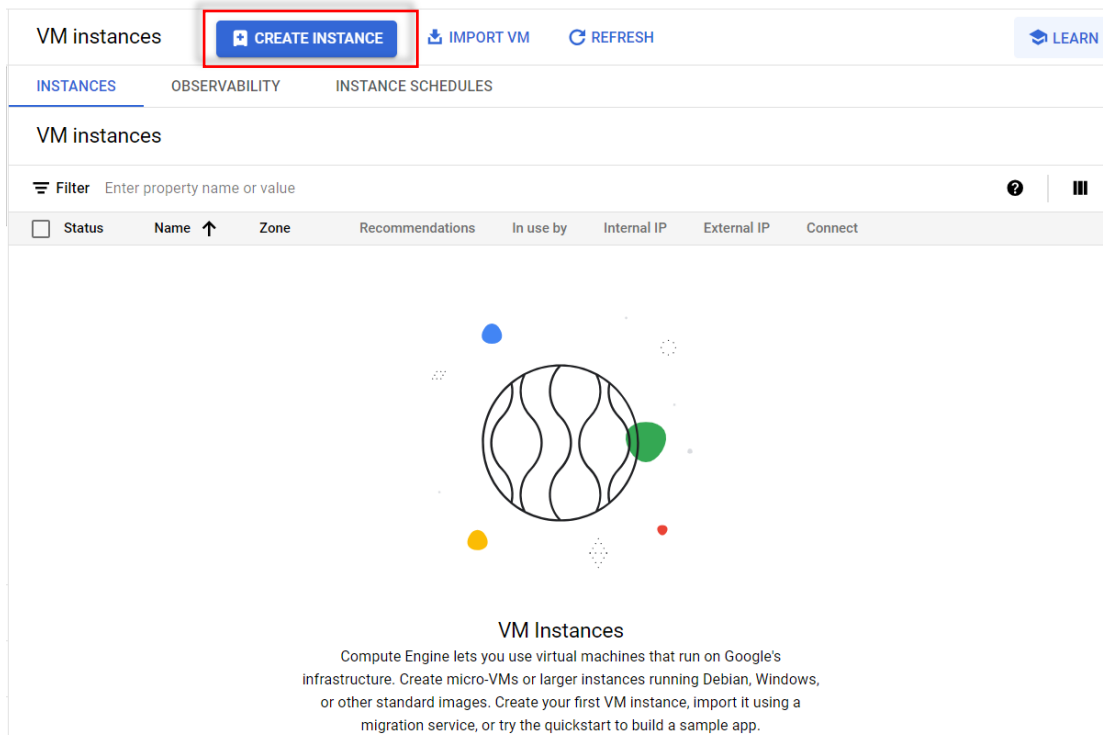
Guidelines:

- First make your own GCP account.
- second after you make your account enable compute engine.
- third create your first virtual machine.

Hands-on-deck \$:~

VM settings:

here you make your first VM.



VM instances

[CREATE INSTANCE](#) [IMPORT VM](#) [REFRESH](#) [LEARN](#)

[INSTANCES](#) [OBSERVABILITY](#) [INSTANCE SCHEDULES](#)

VM instances

[Filter](#) Enter property name or value


<input type="checkbox"/> Status	Name ↑	Zone	Recommendations	In use by	Internal IP	External IP	Connect
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VM Instances

Compute Engine lets you use virtual machines that run on Google's infrastructure. Create micro-VMs or larger instances running Debian, Windows, or other standard images. Create your first VM instance, import it using a migration service, or try the quickstart to build a sample app.

The boot disk settings.

Boot disk ?

Name	web
Type	New balanced persistent disk
Size	10 GB
License type ?	Free
Image	 Debian GNU/Linux 12 (bookworm)

Allow HTTP and HTTPS traffic.





Firewall ?

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

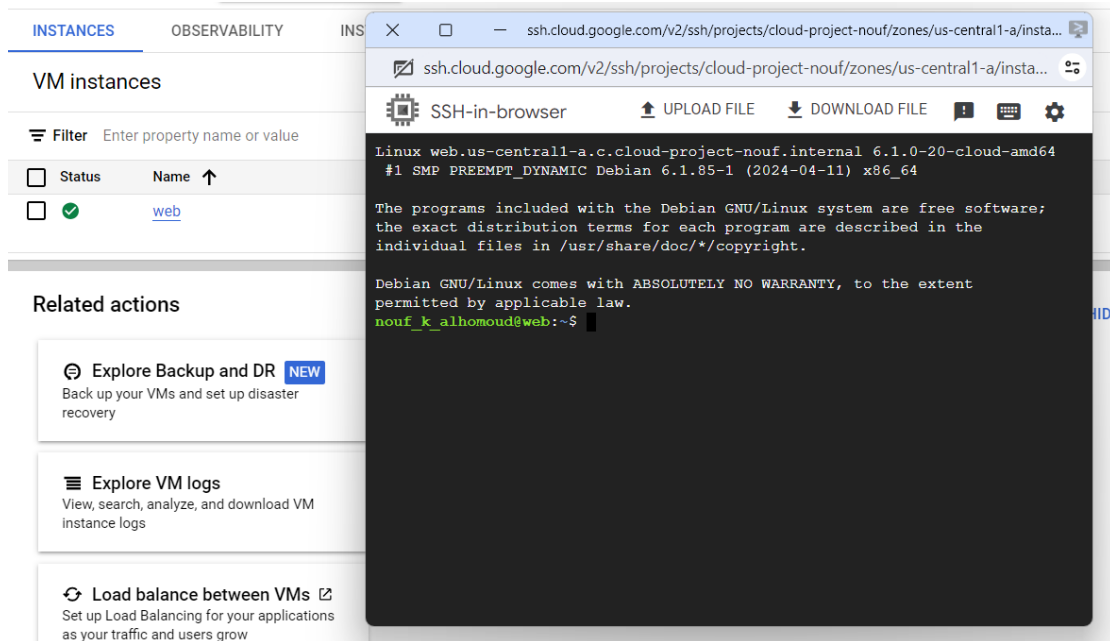
- ☒ Allow HTTP traffic
- ☒ Allow HTTPS traffic
- ☐ Allow Load Balancer Health Checks

VM SSH:

After we create our first VM, we'll run SSH from clicking the SSH button.

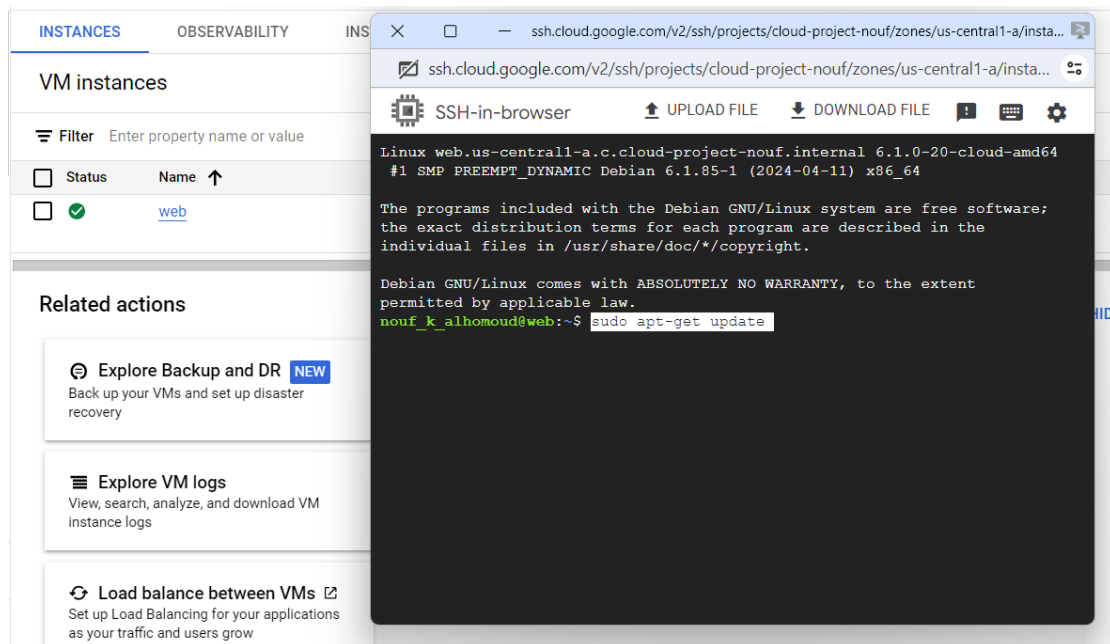
VM instances							
<div> Filter Enter property name or value</div>							
<input type="checkbox"/> Status	Name 	Zone	Recommendations	In use by	Internal IP	External IP	Connect
<input type="checkbox"/> 	web	us-central1-a			10.128.0.4 (nic0)	130.211.216.54 (nic0)	<div>SSH </div>

Now we open the SSH window.



First thing is to update packages by the cmd:

`sudo apt-get update`



After that install apache2 server the cmd:

```
sudo apt-get install apache2 -y
```

The screenshot shows the Google Cloud Platform console. On the left, the 'INSTANCES' tab is active, displaying a table of VM instances. One instance named 'web' is shown with a green status icon. Below the table, there are 'Related actions' such as 'Explore Backup and DR', 'Explore VM logs', and 'Load balance between VMs'. On the right, an 'SSH-in-browser' window is open, showing the terminal output of the command 'sudo apt-get install apache2 -y'. The output shows the progress of installing the apache2 package, including downloading packages and their dependencies.

Status	Name
<input checked="" type="checkbox"/>	web

```
Get:6 https://deb.debian.org/debian-security bookworm-security InRelease [48.0 kB]
Get:9 https://packages.cloud.google.com/apt cloud-sdk-bookworm/main amd64 Packages [477 kB]
Get:10 https://deb.debian.org/debian bookworm-backports/main Sources.diff/Index [63.3 kB]
Get:11 https://deb.debian.org/debian bookworm-backports/main amd64 Package s.diff/Index [63.3 kB]
Get:12 https://deb.debian.org/debian bookworm-backports/main Sources T-2024-04-16-1405.22-F-2024-04-15-2018.42.pdiff [1400 B]
Get:12 https://deb.debian.org/debian bookworm-backports/main Sources T-2024-04-16-1405.22-F-2024-04-15-2018.42.pdiff [1400 B]
Get:16 https://deb.debian.org/debian bookworm-backports/main amd64 Package s T-2024-04-16-1405.22-F-2024-04-15-2018.42.pdiff [1365 B]
Get:16 https://deb.debian.org/debian bookworm-backports/main amd64 Package s T-2024-04-16-1405.22-F-2024-04-15-2018.42.pdiff [1365 B]
Get:13 https://deb.debian.org/debian-security bookworm-security/main Sourc es [90.8 kB]
Get:14 https://deb.debian.org/debian-security bookworm-security/main amd64 Packages [154 kB]
Get:15 https://deb.debian.org/debian-security bookworm-security/main Trans lation-en [93.6 kB]
Fetched 1262 kB in 1s (1060 kB/s)
Reading package lists... Done
nouf_k_alhomoud@web:~$ sudo apt-get install apache2 -y
```

we install apache2 server successfully but how to check if the server is working the cmd:

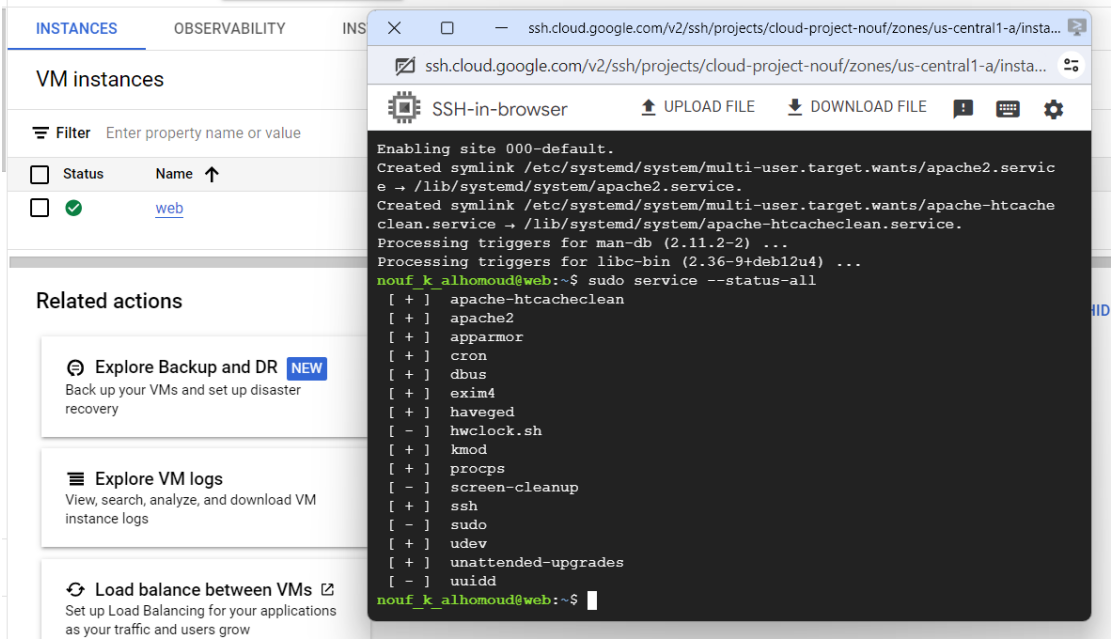
```
sudo service --status-all
```

The screenshot shows the Google Cloud Platform console. On the left, the 'INSTANCES' tab is active, displaying a table of VM instances. One instance named 'web' is shown with a green status icon. Below the table, there are 'Related actions' such as 'Explore Backup and DR', 'Explore VM logs', and 'Load balance between VMs'. On the right, an 'SSH-in-browser' window is open, showing the terminal output of the command 'sudo service --status-all'. The output shows the status of various system services, including 'apache2.service', which is listed as 'active (running)'.

Status	Name
<input checked="" type="checkbox"/>	web

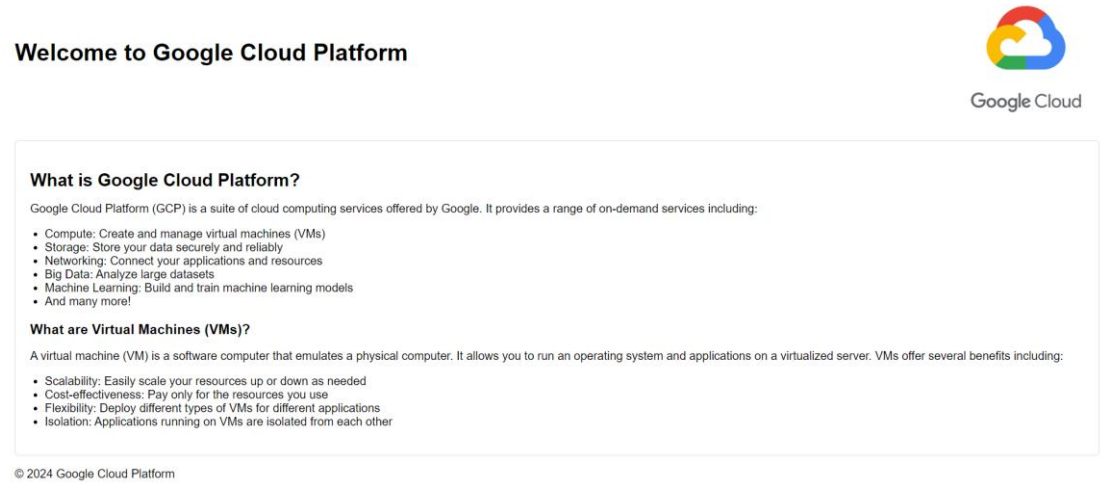
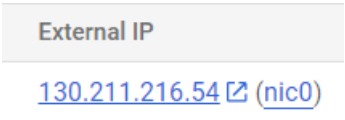
```
Enabling module authz_user.
Enabling module alias.
Enabling module dir.
Enabling module autoindex.
Enabling module env.
Enabling module mime.
Enabling module negotiation.
Enabling module setenvif.
Enabling module filter.
Enabling module deflate.
Enabling module status.
Enabling module reqtimeout.
Enabling conf charset.
Enabling conf localized-error-pages.
Enabling conf other-vhosts-access-log.
Enabling conf security.
Enabling conf serve-cgi-bin.
Enabling site 000-default.
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.servic e -> /lib/systemd/system/apache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service -> /lib/systemd/system/apache-htcacheclean.service.
Processing triggers for man-db (2.11.2-2) ...
Processing triggers for libc-bin (2.36-9+deb12u4) ...
nouf_k_alhomoud@web:~$ sudo service --status-all
```

The check is completed.



Note: if you have index.html upload it and move it to /var/www/html

Finally, after you upload your website now go to your external IP and click on it.



I hope that the project will help you.