

# Google cloud platform project

## Apache Web Server on Google Cloud

By Faisal Alkhayef

### Guidelines:

1. Make your own GCP account.
2. Enable compute engine
3. Create your first virtual machine

### VM settings:

#### Create VM Instance:

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

VM instances


Filter

Enter property name or value

?

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<input type="checkbox"/>	Status	Name <span>↑</span>	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.

CREATE INSTANCE

TAKE THE QUICKSTART

Boot disk settings:

### Boot disk ?

Name	instance-01
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

After creating the VM, run SSH:

VM instances

Filter	Sort	property name or value								
Status	↑	Name	↑	Zone	Recommendations	In use by	Internal IP	External IP	Connect	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<a href="#">instance-01</a>		us-central1-a			10.128.0.5 (nic0)	<a href="#">34.71.9.174</a> (nic0)	<a href="#">SSH</a>	⋮

Update packages: sudo apt-get update

SSH-in-browser

Linux instance-01.us-central1-a.c.Cloudcamp-420514.internal 6.1.0-20-cloud-amd64 #1 SMP PREEMPT\_DYNAMIC Debian 6.1.85-1 (2024-04-11) 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.

afisal01994@instance-01:~\$ sudo apt-get update

install apache2 server: sudo apt-get install apache2 -y

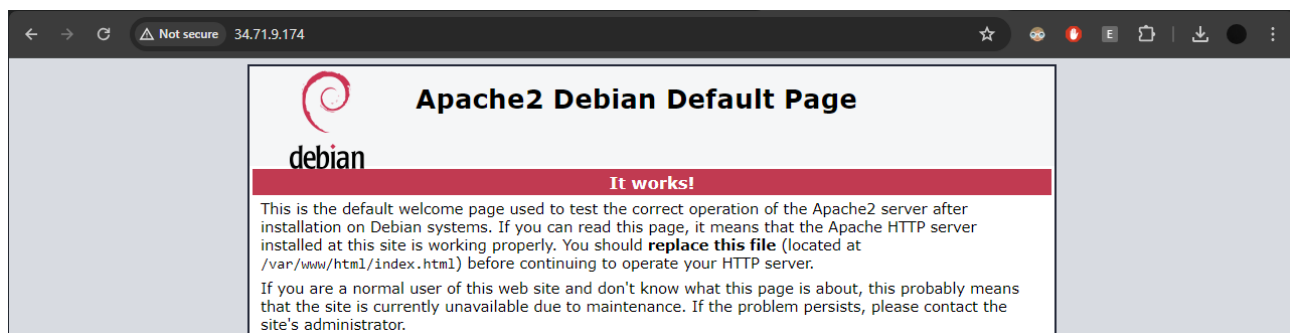
```
SSH-in-browser
[Icons: ?] [Buttons: ?] [Settings: ?]
Get:11 https://deb.debian.org/debian bookworm-backports/main amd64 Packages.diff/Index [63.3 kB]
Get:15 https://deb.debian.org/debian bookworm-backports/main Sources T-2024-04-18-0807.10-F-2024-04-15-2018.42.
pdiff [1686 B]
Get:16 https://deb.debian.org/debian bookworm-backports/main amd64 Packages T-2024-04-16-1405.22-F-2024-04-15-2
018.42.pdiff [1365 B]
Get:16 https://deb.debian.org/debian bookworm-backports/main amd64 Packages T-2024-04-16-1405.22-F-2024-04-15-2
018.42.pdiff [1365 B]
Get:12 https://deb.debian.org/debian-security bookworm-security/main Sources [90.8 kB]
Get:13 https://deb.debian.org/debian-security bookworm-security/main amd64 Packages [154 kB]
Get:14 https://deb.debian.org/debian-security bookworm-security/main Translation-en [93.6 kB]
Fetched 1268 kB in 1s (1028 kB/s)
Reading package lists... Done
afisal01994@instance-01:~$ sudo apt-get install apache2 -y
```

Check the server status: service --status-all

```
SSH-in-browser
[Icons: ?] [Buttons: ?] [Settings: ?]
Processing triggers for libc-bin (2.36-9+deb12u4) ...
afisal01994@instance-01:~$ sudo service --status-all
[ + ] apache-htcacheclean
[ + ] apache2
[ + ] apparmor
[ + ] cron
[ + ] dbus
[ + ] exim4
[ + ] haveged
[ - ] hwclock.sh
[ + ] kmod
[ + ] procps
```

Finally go to your external IP and click on it:

VM instances							
Filter Enter property name or value							
<input type="checkbox"/> Status	Name ↑	Zone	Recommendations	In use by	Internal IP	External IP	Connect
<input type="checkbox"/>	<a href="#">instance-01</a>	us-central1-a			10.128.0.5 (nic0)	<a href="#">34.71.9.174</a> <a href="#">(nic0)</a>	SSH ▾ ⋮



Note: if you want to replace the html, upload then replace it with already existing file located at /var/www/html/index.html

After replacing the html:

## Welcome to Google Cloud Platform



Google Cloud

### What is Google Cloud Platform?

Google Cloud Platform (GCP) is a suite of cloud computing services offered by Google. It provides a range of on-demand services including:

- Compute: Create and manage virtual machines (VMs)
- Storage: Store your data securely and reliably
- Networking: Connect your applications and resources
- Big Data: Analyze large datasets
- Machine Learning: Build and train machine learning models
- And many more!

### What are Virtual Machines (VMs)?

A virtual machine (VM) is a software computer that emulates a physical computer. It allows you to run an operating system and applications on a virtualized server. VMs offer several benefits including:

- Scalability: Easily scale your resources up or down as needed
- Cost-effectiveness: Pay only for the resources you use
- Flexibility: Deploy different types of VMs for different applications
- Isolation: Applications running on VMs are isolated from each other

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Hope this documentation helps.