

# How to create a Debian virtual machine with NGINX

- 1 Navigate to [console.cloud.google.com/compute/instancesAdd?a...](https://console.cloud.google.com/compute/instancesAdd?a...)

- 2 Click the "Name" field.

The screenshot shows the Google Cloud Platform console's 'Create instance' page. The 'Name' field is highlighted with an orange circle. The form includes the following fields and sections:

- Name \***: Text input field containing 'assignment-1'.
- Labels ?**: Section with a '+ ADD LABELS' button.
- Region \***: Dropdown menu showing 'asia-south2 (Delhi)'.
- Zone \***: Dropdown menu showing 'asia-south2-a'.
- Machine configuration**: Section with tabs for 'GENERAL-PURPOSE', 'COMPUTE-OPTIMIZED', 'MEMORY-OPTIMIZED', and 'GPU'.

The 'Machine configuration' section also includes a note: 'Machine types for common workloads, optimized for cost and flexibility'.

- 3 Name the instance.

4 Click this Region.

Instance

Select one of the options:

- Instance from scratch
- Instance from template
- Instance from machine image
- Instance from an existing solution onto a VM instance

Name \*  
instance-1

Labels ?  
+ ADD LABELS

Region \*  
asia-south2 (Delhi) ?  
Region is permanent

Zone \*  
asia-south2-a ?  
Zone is permanent

### Machine configuration

Machine family

GENERAL-PURPOSE COMPUTE-OPTIMIZED MEMORY-OPTIMIZED GPU

Machine types for common workloads, optimized for cost and flexibility

Try the new C3 machine series. There's no charge for C3 VMs during

5 Click here.

Instance from scratch

Instance from template

Instance from machine image

Instance from an existing solution onto a VM instance

Labels ?  
+ ADD LABELS

Region \*  
asia-south2 (Delhi) ?  
Region is permanent

Zone \*  
asia-south2-a ?  
Zone is permanent

Machine family

GENERAL-PURPOSE COMPUTE-OPTIMIZED MEMORY-OPTIMIZED GPU

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Series  
E2  
CPU platform selection based on availability

## 6 Click "CHANGE" for OS setup.

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

### Boot disk ?

Name	Instance-1
Type	New balanced persistent disk
Size	10 GB
License type ?	Free
Image	Debian GNU/Linux 11 (bullseye)

**CHANGE**

### Identity and API access ?

**Service accounts ?**

Service account

Compute Engine default service account

Requires the Service Account User role (roles/iam.serviceAccountUser) to be set for users who want to access VMs with this service account. [Learn more](#)

**Access scopes ?**

## 7 Select required OS and configuration.

Search (/) for resources, docs, p...

g tools...

this VM instance

e

### 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 ARCHIVE SNAPS

Operating system  
Debian

Version \*  
Debian GNU/Linux 11 (bullseye)

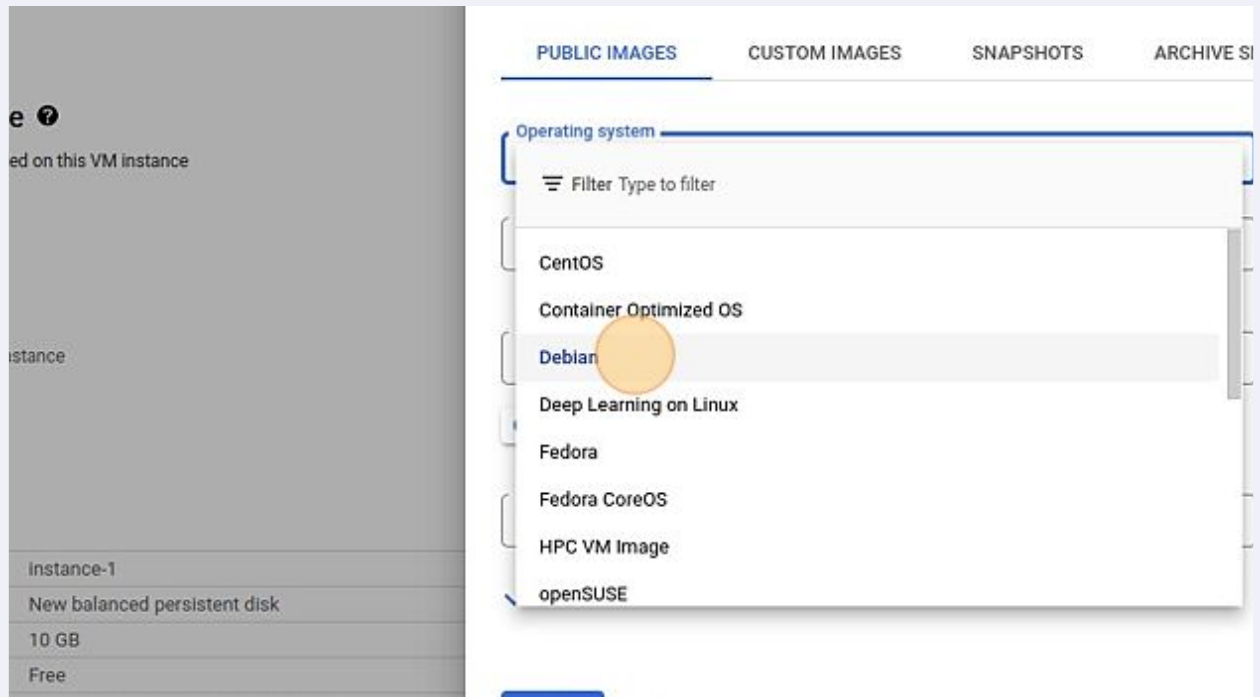
x86/64, amd64 built on 20230306, supports Shielded VM features

Boot disk type \*  
Balanced persistent disk

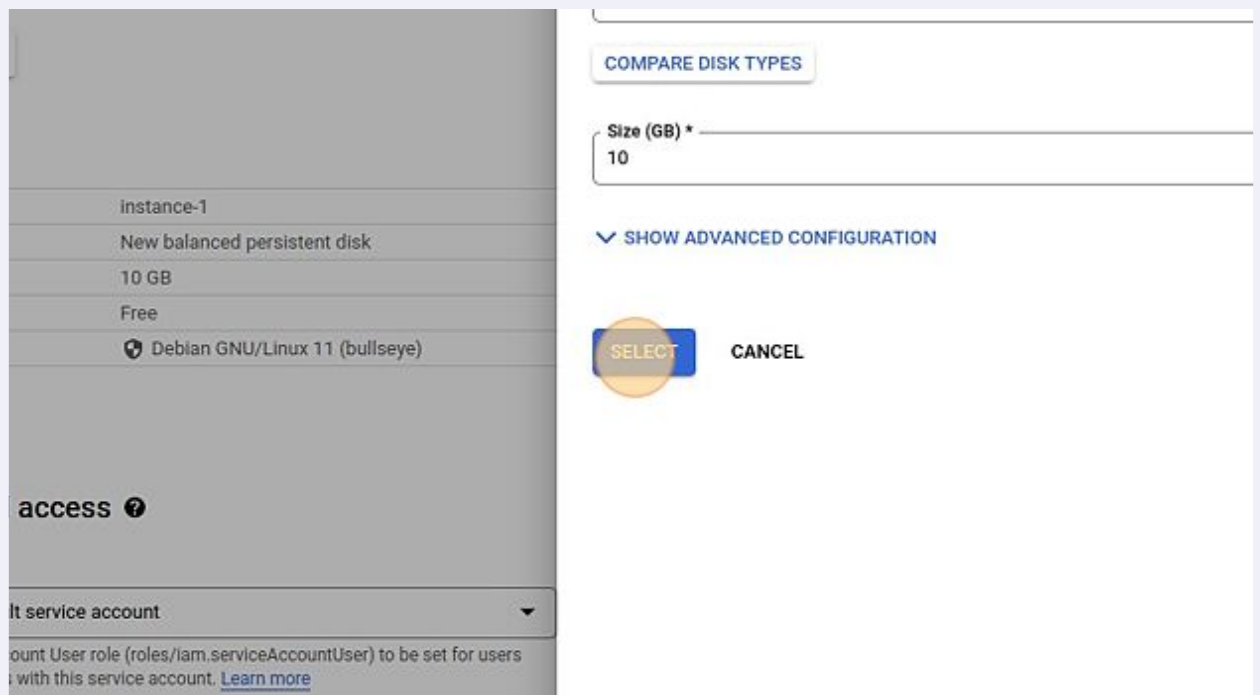
**COMPARE DISK TYPES**

Size (GB) \*  
10

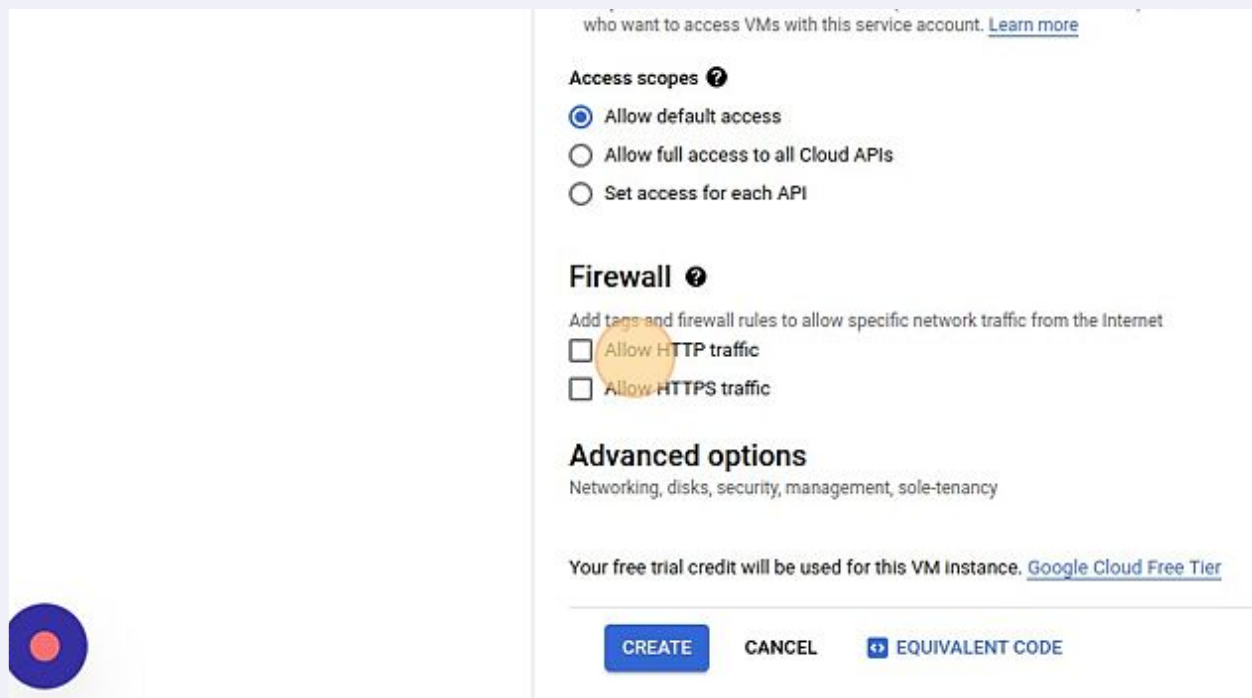
## 8 Click "Debian"



## 9 Click "SELECT"



## 10 Click "Allow HTTP traffic"



who want to access VMs with this service account. [Learn more](#)

**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

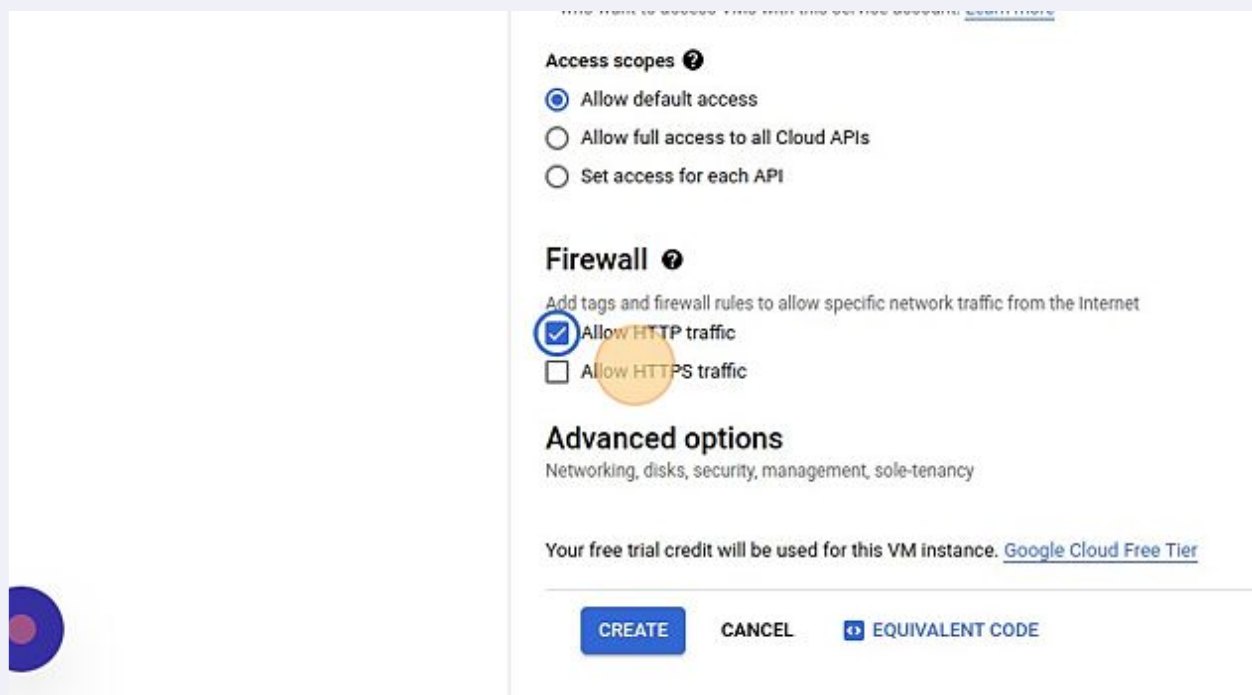
**Advanced options**

Networking, disks, security, management, sole-tenancy

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

**CREATE** **CANCEL** [EQUIVALENT CODE](#)

## 11 Click "Allow HTTPS traffic"



who want to access VMs with this service account. [Learn more](#)

**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

**Advanced options**

Networking, disks, security, management, sole-tenancy

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**CREATE** **CANCEL** [EQUIVALENT CODE](#)

## 12 Click here.

template  
from an existing

machine image  
from an existing

on onto a VM instance

**Network bandwidth** ?  
☐ Enable per VM Tier\_1 networking performance  
Maximum outbound network bandwidth: 1Gbps  
VM to Public IP: 1Gbps

**Network interfaces** ?  
Network interface is permanent  
default default (10.190.0.0/20) [trash icon] [dropdown arrow]  
[ADD NETWORK INTERFACE](#)

**Disks** [dropdown arrow]  
Additional disks

**Security** [dropdown arrow]  
Shielded VM and SSH keys

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^ L

## 13 Click here.

instance from machine image  
Single VM instance from an existing  
image

ace  
ready-to-go solution onto a VM instance

Maximum outbound network bandwidth: 1Gbps  
VM to Public IP: 1Gbps

**Network interfaces** ?  
Network interface is permanent

**Edit network interface** [up arrow]  
Network \* default [dropdown arrow] [?] [Toggle item "default default (10.190...)]  
Subnetwork \* default IPv4 (10.190.0.0/20) [dropdown arrow] [?]  
[info icon] To use IPv6, you need an IPv6 subnet range. [LEARN MORE](#)

**IP stack type**  
☒ IPv4 (single-stack)  
☐ IPv4 and IPv6 (dual-stack)

## 14 Click "vpc1"

tplace

a ready-to-go solution onto a VM instance

Network interface is permanent

### Edit network interface

Network \*

Filter Type to filter

default

vpc1

### IP stack type

☒ IPv4 (single-stack)

☐ IPv4 and IPv6 (dual-stack)

Primary internal IP

Ephemeral (Automatic)

Alias IP ranges

## 15 Click here.

a VM instance from an existing  
e

h-to-go solution onto a VM instance

### Network interfaces ?

Network interface is permanent

### Edit network interface

Network \*

vpc1

Subnetwork

No subnetworks in this region



To use IPv6, you need an IPv6 subnet range. [LEARN MORE](#)

### IP stack type

☒ IPv4 (single-stack)

☐ IPv4 and IPv6 (dual-stack)

Primary internal IP


## 16 Click here.

On this page, select one of the options:

- Create VM instance from scratch**
- Create VM instance from template**
- Create VM instance from machine image**
- Create VM instance from existing VM instance**

**Name \***  
instance-1

**Labels ?**  
[+ ADD LABELS](#)

**Region \***  
asia-south2 (Delhi)  ?  
Region is permanent


**Zone \***  
asia-south2-a ?  
Zone is permanent

### Machine configuration

**Machine family**

[GENERAL-PURPOSE](#) [COMPUTE-OPTIMIZED](#) [MEMORY-OPTIMIZED](#) [GPU](#)


Machine types for common workloads, optimized for cost and flexibility

 Try the new C3 machine series. There's no charge for C3 VMs during

## 17 Select correct Region where vpc was created.

**Instance-1**

**Labels ?**  
[+ ADD LABELS](#)


**Region \***  
asia-south2 (Delhi)  ?  
Zone \*

**Machine configuration**

**Machine family**

[GENERAL-PURPOSE](#) [COMPUTE-OPTIMIZED](#) [MEMORY-OPTIMIZED](#) [GPU](#)

Machine types for common workloads, optimized for cost and flexibility

 Try the new C3 machine series. There's no charge for C3 VMs during

**Series**  
E2



18 Click here.

Select one of the options:

- Instance from scratch
- Instance from template
- Instance from an existing
- Instance from machine image
- Instance from an existing
- Deploy solution onto a VM instance

### Network interfaces ?

Network interface is permanent

#### Edit network interface

Network \*  
vpc1

Subnetwork \*  
vpc1 IPv4 (192.168.0.0/24)

**i** To use IPv6, you need an IPv6 subnet range. [LEARN MORE](#)

**IP stack type**

☒ IPv4 (single-stack)

☐ IPv4 and IPv6 (dual-stack)

Primary Internal IP  
Ephemeral (Automatic)

19 Click "IPv4 (192.168.0.0/24)"

Instance from scratch

Instance from template

Instance from an existing

Instance from machine image

Instance from an existing

Deploy solution onto a VM instance

### Edit network interface

Network \*  
vpc1

Subnetwork \*  
vpc1 IPv4 (192.168.0.0/24)

**Filter** Type to filter

vpc1  
IPv4 (192.168.0.0/24)

**IP stack type**

☒ IPv4 (single-stack)

☐ IPv4 and IPv6 (dual-stack)

Primary Internal IP  
Ephemeral (Automatic)

**Alias IP ranges**

+ ADD IP RANGE

## 20 Click "DONE"

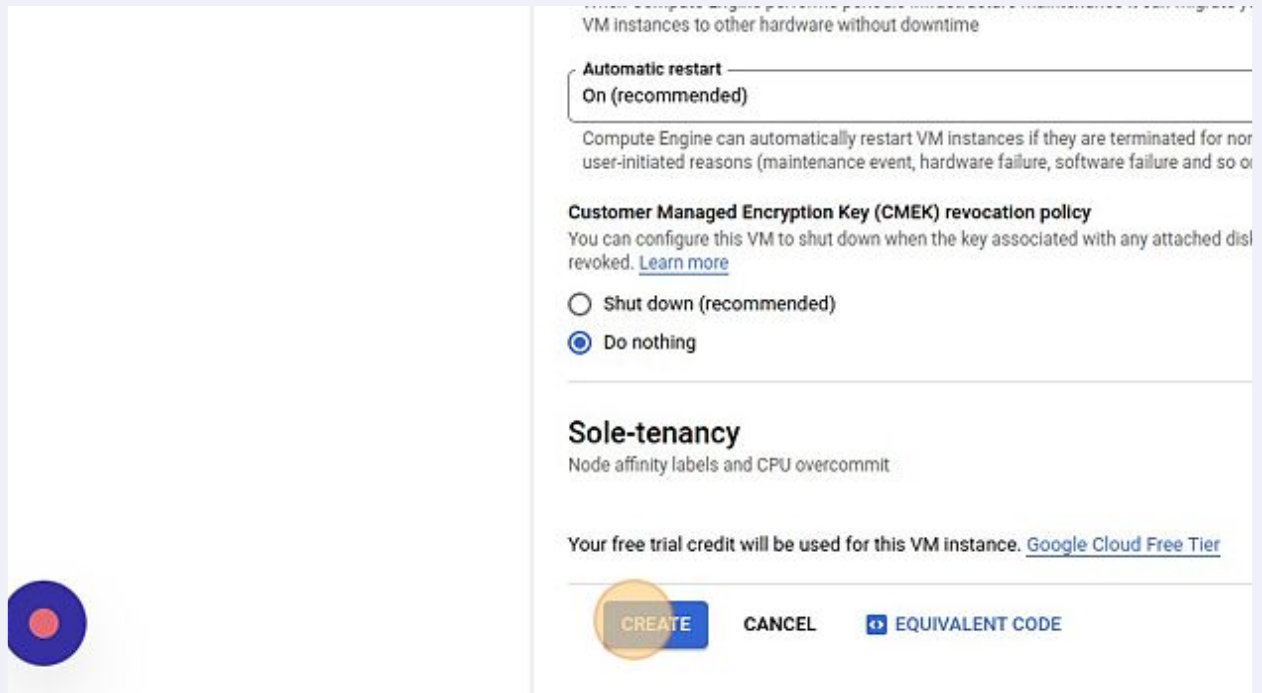
The screenshot shows the Google Cloud Platform console. On the left, under the 'Work Service Tier' section, there are options for 'Premium' and 'Standard (asia-south1)'. Below this, there is a section for 'Public DNS PTR Record' with a checkbox 'Enable for IPv4' and a text field for 'PTR domain name'. A large orange 'DONE' button is positioned to the right of the 'PTR domain name' field. On the right side of the console, there is a 'Monthly estimate' section showing a total of '\$8.54' and a breakdown of costs for '2 vCPU + 1 GB memory' and '10 GB balanced persistent disk'. Below the estimate, there is a link to 'Compute Engine pricing' and a button labeled 'LESS'.

## 21 Click the "Startup script" field.

The screenshot shows the Google Cloud Platform console. On the left, under the 'Create an instance' section, there are three options: 'Create a VM instance from scratch', 'Create a VM instance from template', and 'Create a VM instance from machine image'. The 'Create a VM instance from scratch' option is selected. On the right, there is a 'Reservations' section with a dropdown menu for 'Application policy' set to 'Automatically use created reservation'. Below this, there is an 'Automation' section with a text field for 'Startup script'. A large orange circle highlights the 'Startup script' field. Below the field, there is a link to 'Learn more' about startup scripts. At the bottom, there is a 'Metadata' section with a link to 'Learn more' about custom metadata. A '+ ADD ITEM' button is located at the bottom right of the console.

22 Type "sudo apt-get update [[enter]] sudo apt install nginx -y"

23 Click "CREATE"



VM instances to other hardware without downtime

**Automatic restart**  
On (recommended)


Compute Engine can automatically restart VM instances if they are terminated for non-user-initiated reasons (maintenance event, hardware failure, software failure and so on).

**Customer Managed Encryption Key (CMEK) revocation policy**  
You can configure this VM to shut down when the key associated with any attached disk is revoked. [Learn more](#)

☐ Shut down (recommended)  
☒ Do nothing

**Sole-tenancy**  
Node affinity labels and CPU overcommit

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

**CREATE** CANCEL  EQUIVALENT CODE