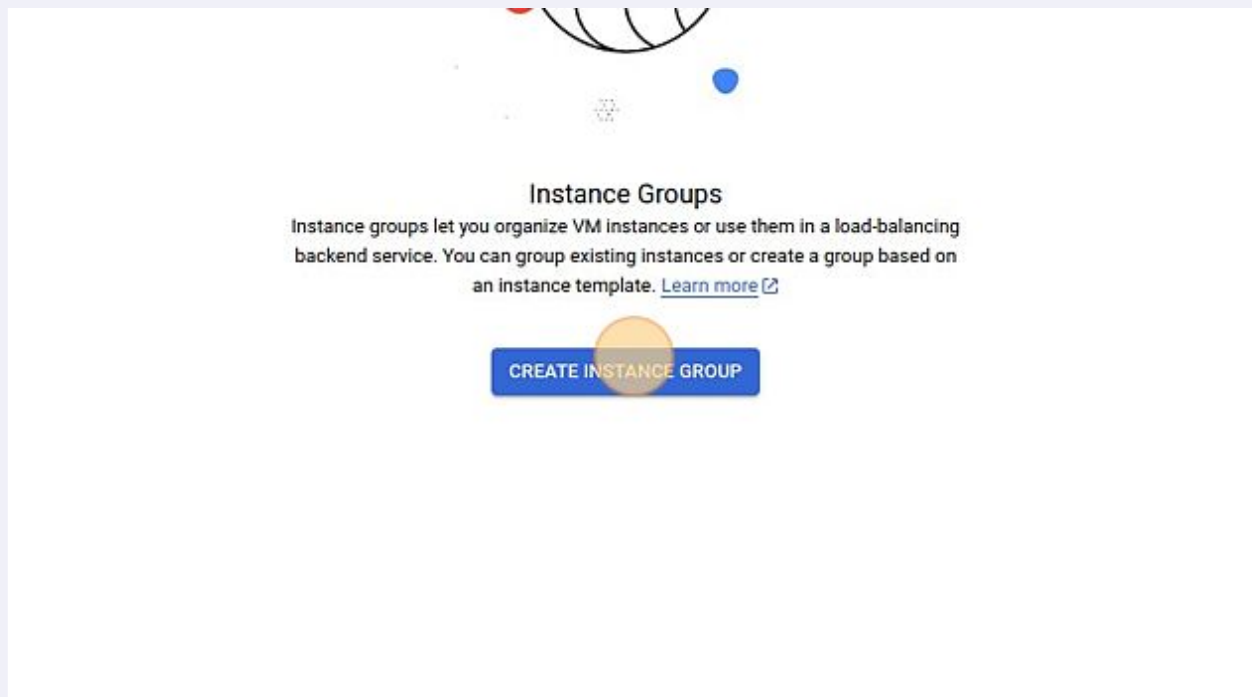


How to Create an Instance Group on Google Cloud Platform

1 Navigate to console.cloud.google.com/compute/instanceGroups...

2 Click "CREATE INSTANCE GROUP"



3 Click here.

Instance group (stateless)
Groups of VMs that do short-lived processing.

Instance group (stateful)
Groups of VMs that have persistent data (such as databases).

Instance group
Groups of load balancing

Set up automatic management for a group of stateless VMs, including updates, regional deployments, load balancing, autoscaling, and autohealing. [Learn more](#)

Name *

Instance-group-1

Name is permanent

Description

Instance template *

Number of instances

Based on autoscaling configuration

Location

For higher availability, select multiple zones in a region instead of a single zone. [Learn more](#)

☒ Single zone

☐ Multiple zones

4 Click "instance-template-debian e2-micro, debian-11-bullseye-v20230306"

Instance group (stateless)
Groups of VMs that do short-lived processing.

Instance group
Groups of load balancing

Description

Instance template *

Filter Type to filter

Instance-template-1
e2-small, ubuntu-1804-bionic-v20230308

Instance-template-debian
e2-micro, debian-11-bullseye-v20230306

[CREATE A NEW INSTANCE TEMPLATE](#)

☐ Multiple zones

Region *

us-central1 (Iowa)

Zone *

us-central1-a

Autoscaling

Use autoscaling to automatically add and remove instances to the group for periods of high and low load. [Learn more](#)

5 Click here.

cloud ▼ my First Project ▼ Search (/) for resources, docs, products, etc.

Instance Group

Managed instance group (stateless)
manage groups of VMs that do not maintain state and batch processing.

Managed instance group (stateful)
manage groups of VMs that have persistent data or configurations (such as databases or legacy applications).

Unmanaged instance group
manually manage groups of load balancing instances.

Location

For higher availability, select multiple zones in a region instead of a single zone. [Learn more](#)

☒ Single zone
☐ Multiple zones

Region * us-central1 (Iowa) ▼ ? Zone * us-central1-a

Autoscaling

Use autoscaling to automatically add and remove instances to the group for periods of high and low load. [Learn more](#)

Autoscaling mode On: add and remove instances to the group

Minimum number of instances * 1 ? Maximum number of instances * 10

6 Click here.

Automatically manage groups of VMs that do not maintain state and batch processing.

Managed instance group (stateful)
Automatically manage groups of VMs that have persistent data or configurations (such as databases or legacy applications).

Unmanaged instance group
manually manage groups of load balancing instances.

Location

For higher availability, select multiple zones in a region instead of a single zone. [Learn more](#)

☒ Single zone
☐ Multiple zones

Region * us-central1 (Iowa) ▼ ? Zone * us-central1-a

asia-northeast2 (Osaka)
asia-northeast3 (Seoul)
asia-south1 (Mumbai)
asia-south2 (Delhi)
asia-southeast1 (Singapore)
asia-southeast2 (Jakarta)
australia-southeast1 (Sydney)
australia-southeast2 (Melbourne)

Use autoscaling to automatically add and remove instances to the group for periods of high and low load. [Learn more](#)

Maximum number of instances * 10

Autoscaling signals

Use signals to help determine when to scale the group. [Learn more](#)

7 Click here.

Search for resources, docs, products, and more

For higher availability, select multiple zones in a region instead of a single zone. [Learn more](#)

Zone *

asia-south2-a

Autoscaling mode

add and remove instances to the group

Minimum number of instances *

Maximum number of instances *

10

8 Click here.

Group (stateless)

Group (stateful)

Group

Load balancing

Location

For higher availability, select multiple zones in a region instead of a single zone. [Learn more](#)

☒ Single zone

☐ Multiple zones

Region *

asia-south2 (Delhi)

Zone *

asia-south2-a

asia-south2-b

asia-south2-c

Autoscaling

Use autoscaling to automatically add and remove instances to the group for periods of high and low load. [Learn more](#)

Autoscaling mode

On: add and remove instances to the group

Minimum number of instances *

Maximum number of instances *

1

10

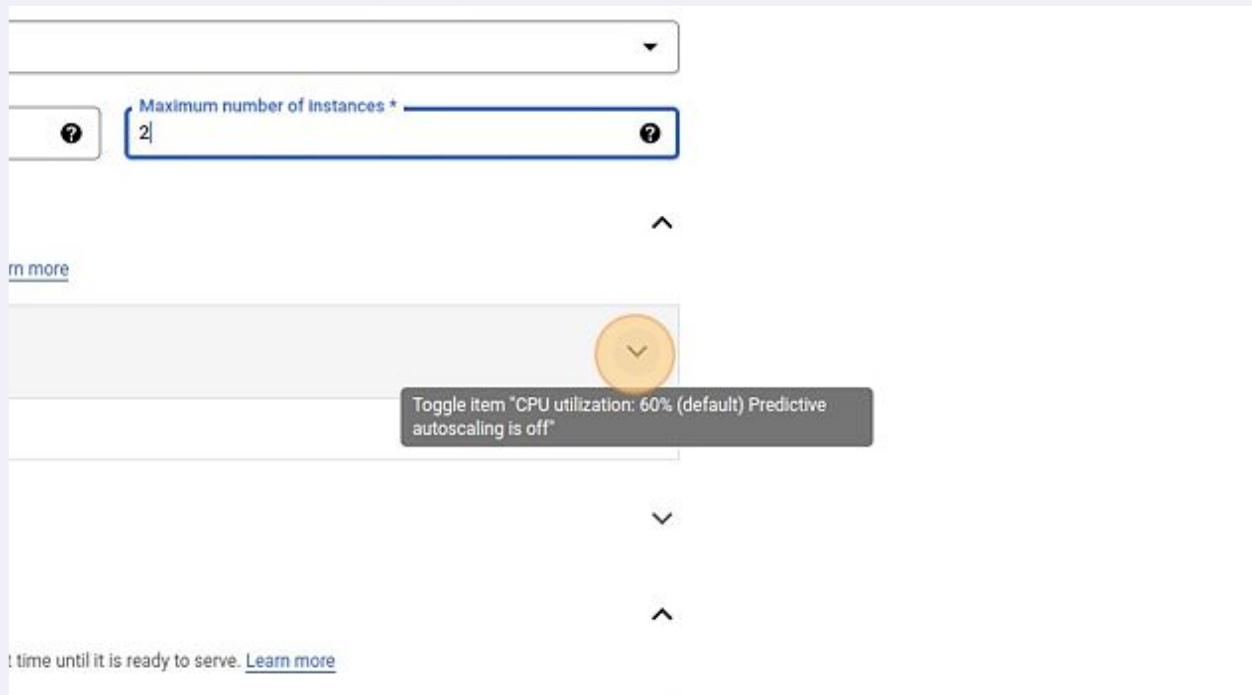
Autoscaling signals

9 Click the "Maximum number of instances" field.

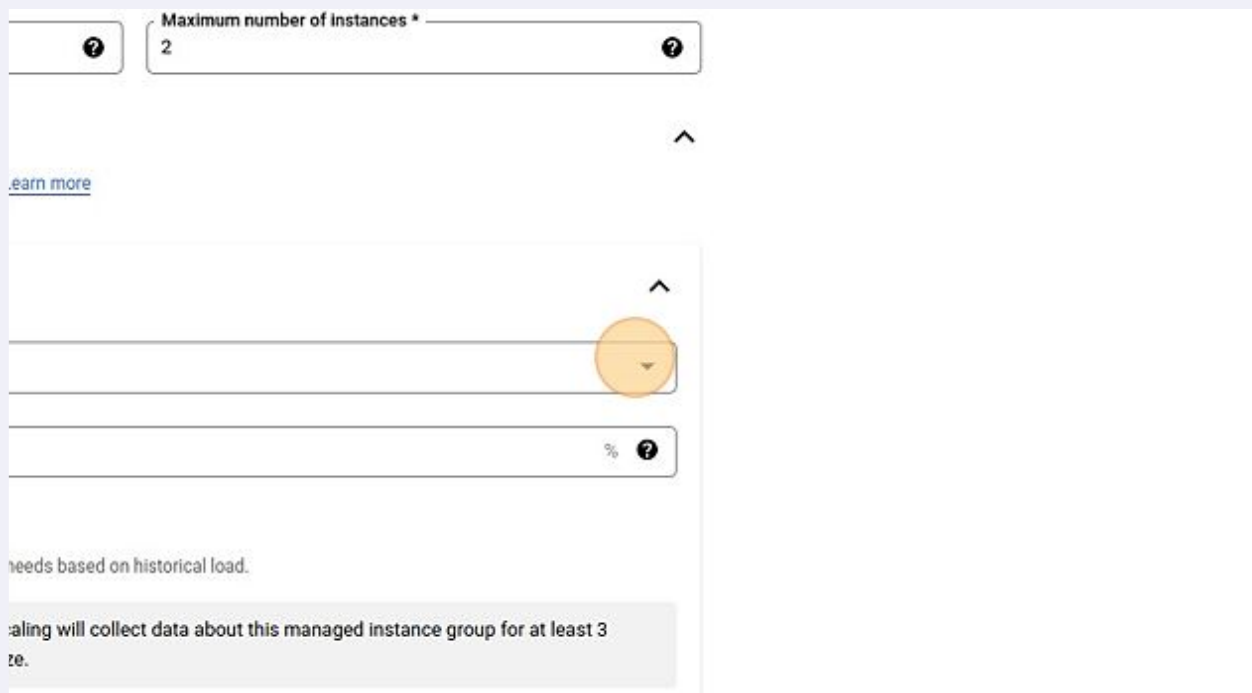
The screenshot shows the Google Cloud Platform Autoscaling configuration interface. At the top, there are two dropdown menus: 'Region' set to 'asia-south2 (Delhi)' and 'Zone' set to 'asia-south2-a'. Below these, the 'Autoscaling mode' is set to 'Add and remove instances to the group'. The 'Maximum number of instances' field is highlighted with a yellow circle and contains the value '10'. Below this, the 'Autoscaling signals' section is expanded, showing 'CPU utilization: 60% (default)' and 'Predictive autoscaling is off'. A 'ADD SIGNAL' button is visible at the bottom of the signals section.

10 Type "2"

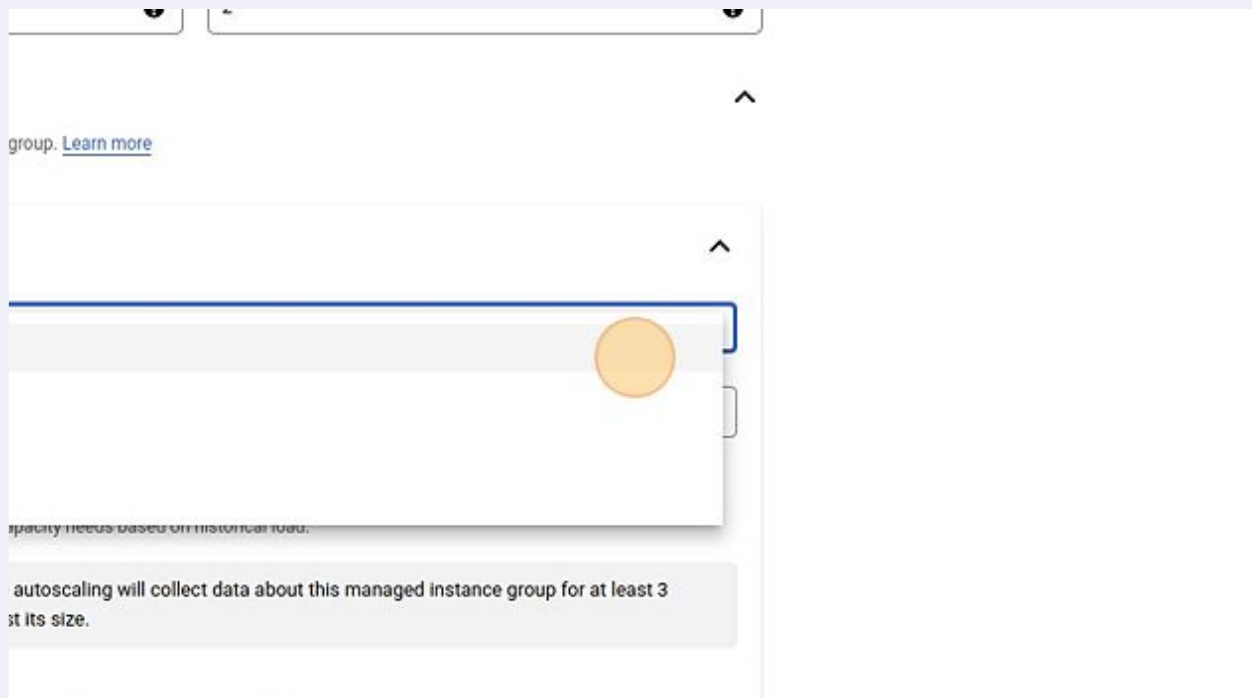
11 Click here.



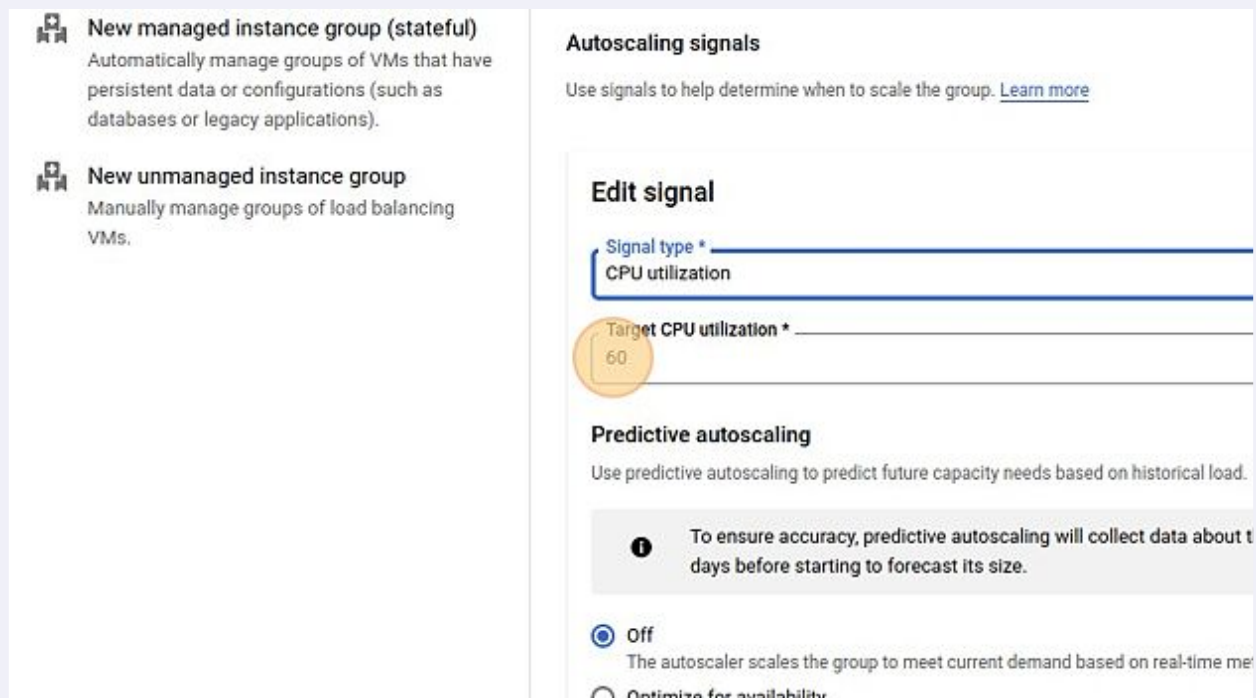
12 Click this icon.



13 Click "CPU utilization"



14 Click the "Target CPU utilization *" field.



15 Type " [[Backspace]] 8"

16 Click "DONE"

needs based on historical load.

caling will collect data about this managed instance group for at least 3
ize.

t demand based on real-time metrics.

monitoring daily and weekly load patterns and scaling out ahead of anticipated

DONE



17 Click here.

ancing


Updates during VM instance repair Toggle item "CPU utilization is off"

☒ **Keep the same instance configuration**
Recreate the VM with the same instance template and per-instance configuration that was used to create it

☐ **Update the instance configuration**
Apply the latest instance template and per-instance configuration when recreating the VM

Autohealing

Autohealing recreates VM instances if your application cannot be reached by the health check. [Learn more](#)

Health check 

Compute Engine will recreate VM instances only when they're not running.

Port mapping

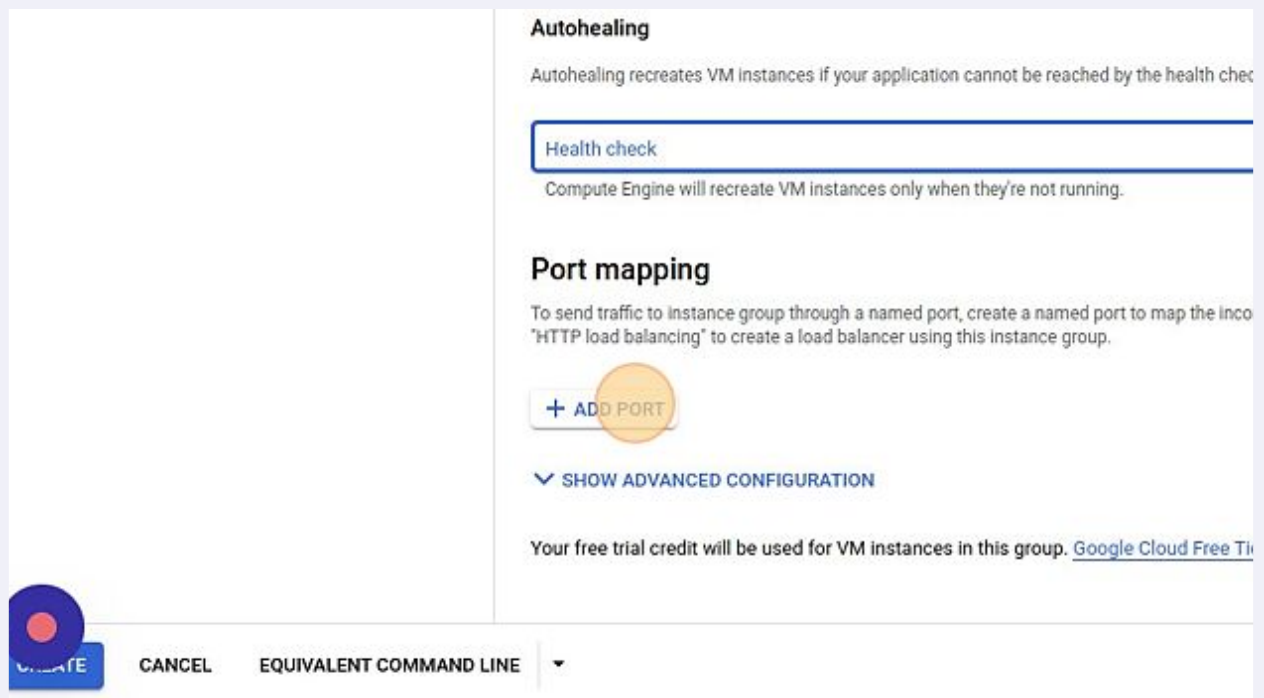
To send traffic to instance group through a named port, create a named port to map the incoming traffic to a specific port number, then go to "HTTP load balancing" to create a load balancer using this instance group.

[+ ADD PORT](#)

[SHOW ADVANCED CONFIGURATION](#)

18 Type "[[Escape]]"

19 Click "ADD PORT"



The screenshot shows the Google Cloud Platform console interface for configuring an instance group. The left sidebar contains a 'CREATE' button with a blue circular icon. The main content area is divided into two sections: 'Autohealing' and 'Port mapping'. The 'Autohealing' section has a 'Health check' dropdown menu and a text description. The 'Port mapping' section has a '+ ADD PORT' button highlighted with a yellow circle, a 'SHOW ADVANCED CONFIGURATION' link, and a note about the free trial credit. At the bottom, there are buttons for 'CANCEL' and 'EQUIVALENT COMMAND LINE'.

Autohealing

Autohealing recreates VM instances if your application cannot be reached by the health check.

Health check

Compute Engine will recreate VM instances only when they're not running.

Port mapping

To send traffic to instance group through a named port, create a named port to map the incoming "HTTP load balancing" to create a load balancer using this instance group.

+ ADD PORT

SHOW ADVANCED CONFIGURATION

Your free trial credit will be used for VM instances in this group. [Google Cloud Free Trial](#)

CREATE CANCEL EQUIVALENT COMMAND LINE

20 Type "http"

21 Click "Port numbers 1"

Autohealing^

Autohealing recreates VM instances if your application cannot be reached by the health check. [Learn more](#)

Health check ▼


Compute Engine will recreate VM instances only when they're not running.

Port mapping

To send traffic to instance group through a named port, create a named port to map the incoming traffic to a specific port number, then go to "HTTP load balancing" to create a load balancer using this instance group.

Port name 1

Port numbers 1



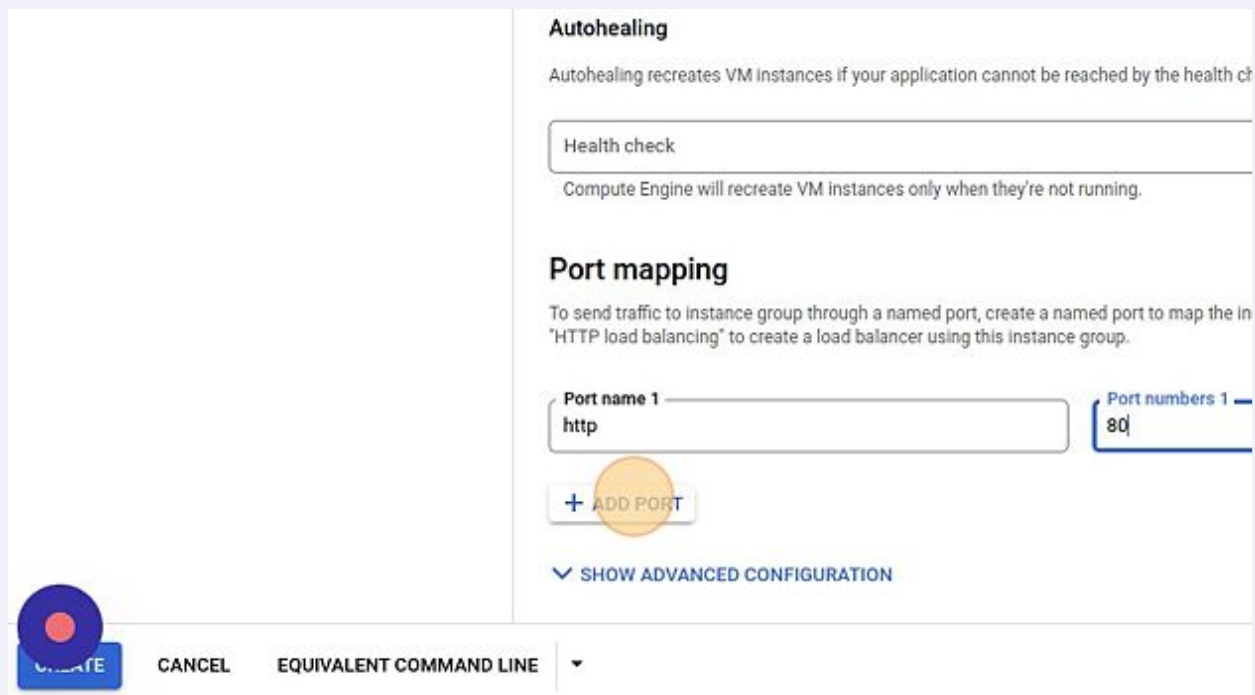
+ ADD PORT

✓ SHOW ADVANCED CONFIGURATION

E ▼

22 Type "80"

23 Click "ADD PORT"



The screenshot shows the 'Autohealing' and 'Port mapping' sections of the Google Cloud Platform console. The 'ADD PORT' button is highlighted with a yellow circle. The 'Port name 1' field contains 'http' and the 'Port numbers 1' field contains '80'. The 'SHOW ADVANCED CONFIGURATION' link is visible below the port mapping section.

Autohealing

Autohealing recreates VM instances if your application cannot be reached by the health check.

Health check

Compute Engine will recreate VM instances only when they're not running.

Port mapping

To send traffic to instance group through a named port, create a named port to map the incoming "HTTP load balancing" to create a load balancer using this instance group.

Port name 1

Port numbers 1

+ ADD PORT

[SHOW ADVANCED CONFIGURATION](#)

CREATE **CANCEL** **EQUIVALENT COMMAND LINE**

24 Type "spring-boot"

25 Click "Port numbers 2"

Compute Engine will recreate VM instances only when they're not running.

Port mapping

To send traffic to instance group through a named port, create a named port to map the incoming traffic to a specific port number, then go to "HTTP load balancing" to create a load balancer using this instance group.

Port name 1 http	Port numbers 1 80
Port name 2 spring-boot	Port numbers 2

+ ADD PORT

✓ SHOW ADVANCED CONFIGURATION

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

E ▼

26 Type "8080"

27 Do add tcp port 22 to SSH to VM

28

Click "Port mapping"

To send traffic to instance group through a named port, create a named port to map the incoming traffic to a specific port number, ..."

Compute Engine will recreate VM instances only when they're not running.

Port mapping

To send traffic to instance group through a named port, create a named port to map the incoming traffic to a specific port number, then go to "HTTP load balancing" to create a load balancer using this instance group.

Port name 1 http	Port numbers 1 80
Port name 2 spring-boot	Port numbers 2 8080

[+ ADD PORT](#)

[SHOW ADVANCED CONFIGURATION](#)

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

COMMAND LINE

29

Click "SHOW ADVANCED CONFIGURATION"

Compute Engine will recreate VM instances only when they're not running.

Port mapping

To send traffic to instance group through a named port, create a named port to map the incoming traffic to a specific port number, then go to "HTTP load balancing" to create a load balancer using this instance group.

Port name 1 http	Port numbers 1 80
Port name 2 spring-boot	Port numbers 2 8080

[+ ADD PORT](#)

[SHOW ADVANCED CONFIGURATION](#)

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

SELECT EQUIVALENT COMMAND LINE

30 Click "CREATE"

Controls the behavior of managedInstanceList API call results. If you're already using pagination, instance list pagination allows for a bigger group size. [Learn more](#)

☒ **Pageless**
When you call managedInstanceList API, the results will be listed in a pageless form

☐ **Paginated (recommended for bigger group size)**
When you call managedInstanceList API, the results will be listed in a paginated form


Do not retry instance creation

By default, VM creation is retried repeatedly after a failure. You can, instead, restrict VM group size. After the instance group is created, this setting reverts to automatic retries. [Learn more](#)

☐ Do not retry instance creation while creating this instance group

[^ HIDE ADVANCED CONFIGURATION](#)

Your free trial credit will be used for VM instances in this group. [Google Cloud Free](#)

 CANCEL EQUIVALENT COMMAND LINE ▾


31 Click "instance-group-1"

Google Cloud my first Project Search (/) for resources, docs

Compute Engine **Instance groups** [CREATE INSTANCE GROUP](#) [REFRESH](#) [DELETE](#)

Instance groups are collections of VM instances that use load balancing and automated services, like autoscaling and autohealing. [Learn more](#)

Filter Enter property name or value

<input type="checkbox"/> Status	Name ↑	Instances	Template	Group type
<input type="checkbox"/> 	instance-group-1	1	instance-template-debian	Managed

32 Click "Ready"

UPDATE VMS RESTART/REPLACE VMS DELETE GROUP

NG ERRORS

Instance by health ?
Not configured
Autohealing off. [Configure](#)

Autoscale
On (mi
Based on

PM UTC+05:30

ian

REMOVE FROM GROUP DELETE INSTANCE

33 Click "instance-group-1-vnt6"

Committed use discounts
Reservations
Migrate to Virtual Machin...

Storage

Disks
Snapshots
Images

Instance groups

Instance groups
Health checks

VM Manager
Marketplace

Number of Instances 1
Template [instance-template-debian](#)
Location asia-south2-a

Instance Group Members REMOVE FROM GROUP DELETE INST

Filter Enter property name or value

Status	Name ↑	Creation Time	Templa
<input checked="" type="checkbox"/>	instance-group-1-vnt6	Mar 20, 2023, 2:15:41 PM UTC+05:30	instanc

34 Click "SSH"



The screenshot shows a web interface with a table. The table has five columns: 'onfig', 'Internal IP', 'External IP', 'Health Check Status', and 'Connect'. The first row of data shows '10.190.0.3 (nic0)' for Internal IP and '34.131.28.31' for External IP. In the 'Connect' column, there is a button labeled 'SSH' which is highlighted by an orange circle. Above the table, there are icons for help (?) and a menu (three horizontal lines).

onfig	Internal IP	External IP	Health Check Status	Connect
	10.190.0.3 (nic0)	34.131.28.31		SSH