

GCP Architect Training

support@intellipaat.com - +91-7022374614 - US: 1-800-216-8930 (Toll Free)

GCP-Module-5-Assignment-2- IAM and Monitoring Services COMPLETED by Nagesha KS

Please check the following screenshots for each question.

Tasks To Be Performed:

1. Create an apache2 VM using Ubuntu.
2. Create an app service on any technology.
3. Using stackdriver configure the following things:
 - Trigger an email, if the apache service goes down (should not wait for instance to stop responding, should respond when apache service goes down).
 - Trigger an email when the app service goes down.


Welcome – My First Project – Google Cloud

console.cloud.google.com/welcome/new?project=sylvan-dragon-437714-p6

Google Cloud Nagesha-GCP-Project 1 Search (/) for resources, docs, products and more Search

Welcome, Nagesha K S

You're in free trial



₹440 out of ₹25,093 credits used
Expires 4 January 2025
[What happens when trial ends?](#)

ACTIVATE FULL ACCOUNT

You're working on project [My First Project](#)

Number: 372983484282 ID: sylvan-dragon-437714-p6

[Add people to your project](#)
[Set up budget alerts](#)
[Review product spend](#)

Try our most advanced model:
Gemini 1.5 Pro

Try Gemini →

Recommended based on your interest in Web, mobile, game, storage

Pre-built solution templates

Deploy a three-tier web app

Create a dynamic web app with

Create a serverless e-commerce

Activate Windows
Go to Settings to activate Windows.

Windows taskbar showing icons for various applications (Chrome, Word, etc.) and system tray information (17:49, 11-10-2024).

VM instances – Compute Engine

should we enable Compute Engine

console.cloud.google.com/compute/instances?project=nagesha-gcp-project-1

Google Cloud

Nagesha-GCP-Project 1

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Committed-use discount

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VM instances

Filter

Enter property name or value

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☐

Status

Name

↑

Zone

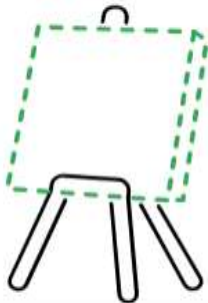
Recommendations

In use by

Internal IP

External IP

Connect



Now viewing project 'Nagesha-GCP-Project 1' in organisation 'No organisation'

×

Activate Windows

Go to Settings to activate Windows.

run on Google's

Debian, Windows or

Windows Taskbar

17:59

11-10-2024

Compute Engine – Nagesha-GC

should we enable Compute Eng

console.cloud.google.com/compute/instancesAdd?project=nagesha-gcp-project-1&googleTemplateId=small&initialName=apache-ubuntu-vm&instanceZone=us-central1-a

Google Cloud

Nagesha-GCP-Pro

Create an instance

CREATE VM

VM basics

apache-ubuntu-vm, us-central1-a, Spot

Machine configuration

e2-micro

OS and storage

Debian GNU/Linux 12 (bookworm)

Networking

1 firewall rule, 1 network interface

Observability

Security

Advanced

Operating system

Name

Type

Size

Snapshot schedule

Licence type

Image

CHANGE

Additional settings

+ ADD NEW

Backup plan

Secure your back projects. Manage and accreditation

CREATE

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 SNAPSHOTS

EXISTING DISKS

Operating system

Ubuntu

Version *

Ubuntu 20.04 LTS

x86_64, amd64 focal image built on 2024-08-30

Boot disk type *

Balanced persistent disk

COMPARE DISK TYPES

Size (GB) *

10

Provision between 10 and 3072 GB

SHOW ADVANCED CONFIGURATION

SELECT

CANCEL

Activate Windows

Go to Settings to activate Windows.

Windows taskbar with icons for File Explorer, Edge, Chrome, and others. System tray shows time 18:02 and date 11-10-2024.

apache-ubuntu-vm - Compute

console.cloud.google.com/compute/instancesDetail/zones/us-central1-a/instances/apache-ubuntu-vm?project=nagesha-gcp-project-1

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apache-ubunt...

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DETAILS

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OS INFO

SCREENSHOT

SHOW MORE

Basic information

Name	apache-ubuntu-vm
Instance ID	8910563953984447087
Description	None
Type	Instance
Status	Running
Creation time	Oct 11, 2024, 6:09:28 pm UTC+05:30
Location	us-central1-a
Instance template	None
In use by	None
Reservations	Automatically choose
Labels	None
Tags	-

EQUIVALENT CODE

Activate Windows

Go to Settings to activate Windows.

18:11

11-10-2024

Windows taskbar icons: File Explorer, Edge, Word, PowerPoint, etc.

apache-ubuntu-vm - Compute

console.cloud.google.com/compute/instancesDetail/zones/us-central1-a/instances/apache-ubuntu-vm?project=nagesha-gcp-project-1&cloudshell=true

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SHOW MORE

Basic information

Name

apache-ubuntu-vm

EQUIVALENT CODE

Activate Windows

Go to Settings to activate Windows.

Windows taskbar with icons for Start, Task View, File Explorer, Edge, Chrome, and others.

System tray showing network, volume, and time (18:12, 11-10-2024).

apache-ubuntu-vm - Compute

console.cloud.google.com/compute/instancesDetail/zones/us-central1-a/instances/apache-ubuntu-vm?project=nagesha-gcp-project-1&cloudshell=true

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Basic information

Name

apache-ubuntu-vm

EQUIVALENT CODE

CLOUD SHELL

Terminal

(nagesha-gcp-project-1)

Open editor

Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to **nagesha-gcp-project-1**.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) \$

Activate Windows

Go to Settings to activate Windows.

18:13

11-10-2024

apache-ubuntu-vm - Compute x +

console.cloud.google.com/compute/instancesDetail/zones/us-central1-a/instances/apache-ubuntu-vm?project=nagesha-gcp-project-1&cloudshell=true

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Compute Engine apache-ubuntu... EDIT RESET CREATE MACHINE IMAGE EQUIVALENT CODE LEARN

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CLOUD SHELL Terminal (nagesha-gcp-project-1) x + Open editor

```
Your Cloud Platform project in this session is set to nagesha-gcp-project-1.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ sudo apt update
Hit:1 https://download.docker.com/linux/ubuntu noble InRelease
Get:2 https://cli.github.com/packages stable InRelease [3,917 B]
Get:3 https://packages.cloud.google.com/apt gcsfuse-noble InRelease [1,227 B]
Get:4 https://packages.cloud.google.com/apt cloud-sdk InRelease [1,618 B]
Get:5 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:6 https://packages.cloud.google.com/apt cloud-sdk/main all Packages [1,546 kB]
Hit:7 http://archive.ubuntu.com/ubuntu noble InRelease
Get:8 https://packages.cloud.google.com/apt cloud-sdk/main amd64 Packages [3,321 kB]
Get:9 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:10 https://apt.postgresql.org/pub/repos/apt noble-pgdg InRelease [129 kB]
Get:11 https://ppa.launchpadcontent.net/dotnet/backports/ubuntu noble InRelease [24.1 kB]
Get:12 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [372 kB]
Get:13 https://ppa.launchpadcontent.net/dotnet/backports/ubuntu noble/main amd64 Packages [6,466 B]
Get:14 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:15 https://apt.postgresql.org/pub/repos/apt noble-pgdg/main amd64 Packages [495 kB]
Get:16 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [482 kB]
Get:17 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [688 kB]
Get:18 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [514 kB]
Fetched 7,962 kB in 2s (3,312 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
48 packages can be upgraded. Run 'apt list --upgradable' to see them.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $
```

Activate Windows
Go to Settings to activate Windows.

18:14
11-10-2024

apache-ubuntu-vm - Compute

console.cloud.google.com/compute/instancesDetail/zones/us-central1-a/instances/apache-ubuntu-vm?project=nagesha-gcp-project-1&cloudshell=true

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Cloud Shell

Terminal

(nagesha-gcp-project-1)

Open editor

```
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ sudo apt install apache2 -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils libapr1t64 libaprutil1-dbd-sqlite3 libaprutil1-ldap libaprutil1t64 liblua5.4-0
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom ufw
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libapr1t64 libaprutil1-dbd-sqlite3 libaprutil1-ldap libaprutil1t64 liblua5.4-0
0 upgraded, 9 newly installed, 0 to remove and 48 not upgraded.
Need to get 2,066 kB of archives.
After this operation, 8,026 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libapr1t64 amd64 1.7.2-3.1ubuntu0.1 [108 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1t64 amd64 1.6.3-1.1ubuntu7 [91.9 kB]
Get:3 http://archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1-dbd-sqlite3 amd64 1.6.3-1.1ubuntu7 [11.2 kB]
Get:4 http://archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1-ldap amd64 1.6.3-1.1ubuntu7 [9,116 B]
Get:5 http://archive.ubuntu.com/ubuntu noble/main amd64 liblua5.4-0 amd64 5.4.6-3build2 [166 kB]
Get:6 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-bin amd64 2.4.58-1ubuntu8.4 [1,329 kB]
Get:7 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-data all 2.4.58-1ubuntu8.4 [163 kB]
Get:8 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-utils amd64 2.4.58-1ubuntu8.4 [97.1 kB]
Get:9 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2 amd64 2.4.58-1ubuntu8.4 [90.2 kB]
Fetched 2,066 kB in 3s (737 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
```

Activate Windows
Go to Settings to activate Windows.

Windows Taskbar

System Tray

apache-ubuntu-vm - Compute

console.cloud.google.com/compute/instancesDetail/zones/us-central1-a/instances/apache-ubuntu-vm?project=nagesha-gcp-project-1&cloudshell=true

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CLOUD SHELL

Terminal

(nagesha-gcp-project-1)

Open editor

```
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.
invoke-rc.d: could not determine current runlevel
invoke-rc.d: policy-rc.d denied execution of start.
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /usr/lib/systemd/system/apache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /usr/lib/systemd/system/apache-htcacheclean.service.
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $
```

Activate Windows

Go to Settings to activate Windows.

Windows Taskbar

18:14 11-10-2024

apache-ubuntu-vm - Compute x +

console.cloud.google.com/compute/instancesDetail/zones/us-central1-a/instances/apache-ubuntu-vm?project=nagesha-gcp-project-1&cloudshell=true

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Compute Engine ← apache-ubunt... EDIT RESET CREATE MACHINE IMAGE EQUIVALENT CODE LEARN

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CLOUD SHELL Terminal (nagesha-gcp-project-1) x + Open editor

```
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.
invoke-rc.d: could not determine current runlevel
invoke-rc.d: policy-rc.d denied execution of start.
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /usr/lib/systemd/system/apache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /usr/lib/systemd/system/apache-htcacheclean.service.
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ sudo systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable apache2
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $
```

Activate Windows
Go to Settings to activate Windows.

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11-10-2024

VM instances – Compute Engine

why • Open the external IP of t...

console.cloud.google.com/compute/instances?cloudshell=true&project=nagesha-gcp-project-1

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Filter Enter property name or value

Status	Name ↑	Zone	Recommendations	In use by	Internal IP	External IP	Connect
<input checked="" type="checkbox"/>	apache-ubuntu-vm	us-central1-a			10.128.0.10 (nic0)	34.42.146.11 (nic0)	SSH

CLOUD SHELL

Terminal (nagesha-gcp-project-1)

Open editor

nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)\$ sudo apt install python3-pip -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
python3-pip is already the newest version (24.0+dfsg-1ubuntu1).
0 upgraded, 0 newly installed, 0 to remove and 40 not upgraded.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)\$

Activate Windows
Go to Settings to activate Windows.

18:24
11-10-2024

VM instances – Compute Engine

why • Open the external IP of th

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Google Cloud

Nagesha-GCP-Project 1

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Filter Enter property name or value

Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
<input checked="" type="checkbox"/>	apache-ubuntu-vm	us-central1-a			10.128.0.10 (nic0)	34.42.146.11 (nic0)	SSH

CLOUD SHELL

Terminal (nagesha-gcp-project-1)

Open editor

Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
python3-pip is already the newest version (24.0+dfsg-lubuntu1).
0 upgraded, 0 newly installed, 0 to remove and 48 not upgraded.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)\$
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)\$
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)\$ pip3 install flask
Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: flask in /usr/local/lib/python3.12/dist-packages (3.0.3)
Requirement already satisfied: Werkzeug>=3.0.0 in /usr/local/lib/python3.12/dist-packages (from flask) (3.0.4)
Requirement already satisfied: Jinja2>=3.1.2 in /usr/local/lib/python3.12/dist-packages (from flask) (3.1.4)
Requirement already satisfied: itsdangerous>=2.1.2 in /usr/local/lib/python3.12/dist-packages (from flask) (2.2.0)
Requirement already satisfied: click>=8.1.3 in /usr/local/lib/python3.12/dist-packages (from flask) (8.1.7)
Requirement already satisfied: blinker>=1.6.2 in /usr/local/lib/python3.12/dist-packages (from flask) (1.8.2)
Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.12/dist-packages (from Jinja2>=3.1.2->flask) (2.1.5)
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)\$

Activate Windows
Go to Settings to activate Windows.

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11-10-2024

VM instances - Compute Engine

why • Open the external IP of ti

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Filter Enter property name or value

<input type="checkbox"/>	Status	Name ↑	Zone	Recommendations	In use by	Internal IP	External IP	Connect
<input type="checkbox"/>		apache-ubuntu-vm	us-central1-a			10.128.0.10 (nic0)	34.42.146.11 (nic0)	SSH

CLOUD SHELL

Terminal (nagesha-gcp-project-1)

Open editor

Activate Windows
Go to Settings to activate Windows.

```
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ pip3 install flask
Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: flask in /usr/local/lib/python3.12/dist-packages (3.0.3)
Requirement already satisfied: Werkzeug>=3.0.0 in /usr/local/lib/python3.12/dist-packages (from flask) (3.0.4)
Requirement already satisfied: Jinja2>=3.1.2 in /usr/local/lib/python3.12/dist-packages (from flask) (3.1.4)
Requirement already satisfied: itsdangerous>=2.1.2 in /usr/local/lib/python3.12/dist-packages (from flask) (2.2.0)
Requirement already satisfied: click>=8.1.3 in /usr/local/lib/python3.12/dist-packages (from flask) (8.1.7)
Requirement already satisfied: blinker>=1.6.2 in /usr/local/lib/python3.12/dist-packages (from flask) (1.8.2)
Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.12/dist-packages (from Jinja2>=3.1.2->flask) (2.1.5)
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ mkdir ~/my-flask-app
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ cd ~/my-flask-app
nagesha_ks@cloudshell:~/my-flask-app (nagesha-gcp-project-1)$
```

Windows taskbar with icons for Start, Search, Task View, File Explorer, Edge, Chrome, VS Code, Word, and others. System tray shows 18:25 on 11-10-2024.

VM instances - Compute Engine

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console.cloud.google.com/compute/instances?cloudshell=true&project=nagesha-gcp-project-1

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Filter Enter property name or value

<input type="checkbox"/>	Status	Name ↑	Zone	Recommendations	In use by	Internal IP	External IP	Connect
<input type="checkbox"/>	✓	apache-ubuntu-vm	us-central1-a			10.128.0.10 (nic0)	34.42.146.11 (nic0)	SSH ▾ ⋮

CLOUD SHELL

Terminal (nagesha-gcp-project-1) + ▾

Open editor

```
nagesha_ks@cloudshell:~/my-flask-app (nagesha-gcp-project-1)$ cat app.py
from flask import Flask
app = Flask(__name__)

@app.route('/')
def home():
    return "App Service is running!"

if __name__ == '__main__':
    app.run(host='0.0.0.0', port=8080)
nagesha_ks@cloudshell:~/my-flask-app (nagesha-gcp-project-1)$
```

Activate Windows

Go to Settings to activate Windows.

18:28

11-10-2024

VM instances – Compute Engine

why • Open the external IP of t

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Enter property name or value

Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
<input checked="" type="checkbox"/>	apache-ubuntu-vm	us-central1-a			10.128.0.10 (nic0)	34.42.146.11 (nic0)	SSH

CLOUD SHELL

Terminal

(nagesha-gcp-project-1)

Open editor

```
app = Flask(__name__)

@app.route('/')
def home():
    return "App Service is running!"

if __name__ == '__main__':
    app.run(host='0.0.0.0', port=8080)
nagesha_ks@cloudshell:~/my-flask-app (nagesha-gcp-project-1) $ python3 app.py
* Serving Flask app 'app'
* Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:8080
* Running on http://10.88.0.7:8080
Press CTRL+C to quit
^Cnagesha_ks@cloudshell:~/my-flask-app (nagesha-gcp-project-1) $
```

Activate Windows

Go to Settings to activate Windows.

18:28

11-10-2024

Overview - Monitoring - Nagesha

console.cloud.google.com/monitoring?referrer=search&cloudshell=true&project=nagesha-gcp-project-1

Google Cloud

Nagesha-GCP-Project 1

Search (/) for resource...

Search

11

N

Observability Monitoring

Overview

Dashboards

Explore

Metrics explorer

Logs Explorer

Log Analytics

Trace explorer

Detect

Alerting

Error reporting

Observability scopes Nagesha-GCP-Project 1

Release notes

Set up your project's observability 0% complete

Alerts 0

Services with SLO out of budget 0

Failed uptime checks 0

VMs with ops agent 0 of 1

Predefined

Last hour

IST

Customise

Get started with Cloud Observability

Google Cloud Observability offers a full suite of features for monitoring and troubleshooting your workloads, from logs, dashboards, alerts and traces to SLO and uptime checks. You can customise this page to quickly access the views that matter most to you.

Recommended for you

Cloud Monitoring overview

Help document

Get an overview of Google Cloud tools for monitoring your services.

Quickstart: Get notified if your app stops responding

Tutorial

Get notified if an application doesn't respond to requests.

Quickstart: View and customize VM dashboards

Tutorial

Create customized dashboards for Compute Engine VM instances.

Quickstart: Collect metrics from an Apache web server with the Ops Agent

Tutorial

Active Windows

Go to Settings to activate Windows.

CLOUD SHELL Terminal

(nagesha-gcp-project-1)

Open editor

18:31 11-10-2024

Monitoring - Nagesha-GCP-Pro

console.cloud.google.com/monitoring/uptime/create?cloudshell=true&project=nagesha-gcp-project-1

Google Cloud

Nagesha-GCP-Project 1

Search (/) for resources, docs, products and more

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Nagesha-GCP-Project 1

Release notes

Create Uptime Check

Target

Response Validation (optional)

Alert & notification (optional)

Review

Create

Cancel

Select the resource to be monitored.

Protocol

HTTP

Resource type

Instance

Applies to

Single

Apply to one resource.

Group

Apply to a collection of resources that is defined as a Monitoring Group.

Instance*

apache-ubuntu-vm

Path

/

Check Frequency

1 minute

CLOUD SHELL

Terminal

(nagesha-gcp-project-1)

Open editor

Activate Windows

Go to Settings to activate Windows.

18:35

11-10-2024

Monitoring - Nagesha-GCP-Pro x

console.cloud.google.com/monitoring/uptime/create?cloudshell=true&project=nagesha-gcp-project-1

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Create Uptime Check

Target

Response Validation (optional)

Alert & notification (optional)

Review

Create

Cancel

Regions ?

Global

Asia-Pacific

Europe

South America

United States Iowa

United States Oregon

United States Virginia

ICMP Pings

0

pings ?

General

Request Method

GET

Host Header

Port

80

CLOUD SHELL

Terminal

(nagesha-gcp-project-1) x

Open editor

18:35

11-10-2024

Activate Windows

Go to Settings to activate Windows.

Monitoring - Nagesha-GCP-Pro x +

console.cloud.google.com/monitoring/uptime/create?cloudshell=true&project=nagesha-gcp-project-1

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Release notes

Create Uptime Check

Target

Response Validation (optional)

Alert & notification (optional)

Review

Create Cancel

Port 80

Custom Headers

Encrypt custom headers

Header Value (optional)

+ Add custom header

Authentication

Authentication Method Basic Authentication

Username admin Password

+ Fewer target options

Continue

Activate Windows Go to Settings to activate Windows.

CLOUD SHELL Terminal (nagesha-gcp-project-1) Open editor

18:35 11-10-2024

Monitoring - Nagesha-GCP-Pro x +

console.cloud.google.com/monitoring/uptime/create?cloudshell=true&project=nagesha-gcp-project-1

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Release notes

Create Uptime Check

Target

Response Validation (optional)

Alert & notification (optional)

Review

Create Cancel

Specify data and how that data is to be compared to the actual response data.

Response Timeout * 10 seconds ?

Content matching is disabled

Response Content Match Type Contains ?

Response Content ?

Log check failures ?

Acceptable HTTP response code ?

Response Code Classes ?

Response Codes ?

Allow any Response Code ?

1XX

2XX

Activate Windows Go to Settings to activate Windows.

Open editor

CLOUD SHELL Terminal (nagesha-gcp-project-1) x +

18:36 11-10-2024

Monitoring - Nagesha-GCP-Pro x

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Target

Response Validation (optional)

Alert & notification (optional)

Review

Create Cancel

Contains

Response Content

Log check failures

Acceptable HTTP response code

Response Code Classes

Response Codes

Allow any Response Code

1XX

2XX

3XX

4XX

5XX

Continue

Activate Windows Go to Settings to activate Windows.

CLOUD SHELL Terminal (nagesha-gcp-project-1) x

Open editor

18:36 11-10-2024

Monitoring – Nagesha-GCP-Pro

console.cloud.google.com/monitoring/uptime/create?cloudshell=true&project=nagesha-gcp-project-1

Google Cloud

Nagesha-GCP-Project 1

Search (/) for resources, docs, products and more

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Create Uptime Check

Target

Response Validation (optional)

Alert & notification (optional)

Review

Create

Cancel

Define Uptime Check Alert Condition.

Create an alert

Name *
apache-service-down-alert

Duration
1 minute

Notifications

When the uptime check fails for the selected duration, you will be notified via these channels. [Learn more](#)

Notification channels

Continue

Activate Windows

Go to Settings to activate Windows.

CLOUD SHELL

Terminal

(nagesha-gcp-project-1)

Open editor

18:37

11-10-2024

Monitoring – Nagesha-GCP-Pro

console.cloud.google.com/monitoring/uptime/create?cloudshell=true&project=nagesha-gcp-project-1

Google Cloud

Nagesha-GCP-Project 1

Search (/) for resources, docs, products and more

Search

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Nagesha-GCP-Project 1

Release notes

Create Uptime Check

Target

Response Validation (optional)

Alert & notification (optional)

Review

CreateCancel

Enter a name for the uptime check.

Title *
apache-service-down-alert

User labels ?
KeyValue (optional)

+ Add user label

^ Hide user labels

Test uptime check (optional)

We recommend that you test your uptime check before creating.

Responded with 'Connection Error – Refused' in 10,000 ms.

TestView Details

CLOUD SHELL Terminal

(nagesha-gcp-project-1)

Open editor

Activate Windows

Go to Settings to activate Windows.

18:37

11-10-2024

Uptime details – Monitoring – x +

← → ↺ console.cloud.google.com/monitoring/uptime/apache-service-down-alert-6H7cAMjZp9I;duration=PT1H?cloudshell=true&project=nagesha-gcp-project-1 ☆ N ⋮

Google Cloud

Nagesha-GCP-Project 1

Search (/) for resources, docs, products and more

Search

◆ 📁 📅 11 ? ⋮ N

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Release notes

<|

← Uptime details

Edit Copy Delete Delete

< ⌚ Last hour IST 🔍 ⌵

apache-service-down-alert

Percent Uptime
----%

Uptime Latency
---- ms

Current Status
No check results were found

Configuration

Check ID

apache-service-down-alert-6H7cAMjZp9I

Title

apache-service-down-alert

Check Type

HTTP

Resource

apache-ubuntu-vm

Path

/

Port

80

Authentication

Basic

Authentication

Passed Checks ⓘ 🔊 ⋮

⚠ No data is available for the selected time frame. ✕

UTC+5:30 17:50 18:00 18:10 18:20 18:30

Open editor

CLOUD SHELL Terminal

(nagesha-gcp-project-1) x +

Go to Settings to activate Windows.

18:39 11-10-2024

Alerting – Monitoring – Nagesha

console.cloud.google.com/monitoring/alerting?cloudshell=true&project=nagesha-gcp-project-1

Google Cloud

Nagesha-GCP-Project 1

Search (/) for resource...

Search

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Create policy

Edit notification channels

Learn

Monitoring now supports both user-scoped and device-scoped Cloud Console Mobile notification channels

Manage channels

Learn more

Dismiss

Summary

Incidents firing0

Incidents acknowledged0

Alert policies1

View all

Incidents

Show closed incidents

State	Severity	Policy name	Incident summary	Opened
No rows to display				

See all incidents

Recommended for you

Alerting overview

Help document

Alerting policies notify you when your application fails or when the performance of your application doesn't meet defined criteria.

Quickstart

Tutorial

Get notified if an application doesn't respond to requests.

Use cases for Monitoring

Help document

Explore use cases, best practices, and industry solutions.

All Monitoring documentation

Activate Windows

Go to Settings to activate Windows.

CLOUD SHELL

Terminal

(nagesha-gcp-project-1)

Open editor

Windows Taskbar

18:40

11-10-2024

Alerting - Monitoring - Nagesha

console.cloud.google.com/monitoring/alerting?cloudshell=true&project=nagesha-gcp-project-1

Google Cloud Nagesha-GCP-Project 1 Search (/) for resource... Search

Observability Monitoring Alerting + Create policy Edit notification channels Learn

Observability scopes Nagesha-GCP-Project 1

Monitoring now supports both user-scoped and device-scoped Cloud Console Mobile notification channels

Recommended for you

- Alerting overview
- Help document

Alerting policies notify you when your

Terminal (nagesha-gcp-project-1)

```
nagesha_ks@cloudshell:~/my-flask-app (nagesha-gcp-project-1)$ pkill -f app.py
nagesha_ks@cloudshell:~/my-flask-app (nagesha-gcp-project-1)$
```

Activate Windows
Go to Settings to activate Windows.

18:43
11-10-2024

Commands

Created an Apache2 VM Using Ubuntu

Go to the **GCP Console>Compute Engine>VM Instances>Click Create Instance**

Name: apache-ubuntu-vm

Region: us-central1

Machine Type: f1-micro

Operating System: Ubuntu.

Version: Ubuntu 20.04 LTS.

Firewall: Allow HTTP and HTTPS traffic.

Installed Apache2

SSH into the VM

Following commands were ran to install Apache:

```
sudo apt update
sudo apt install apache2 -y
sudo systemctl enable apache2
sudo systemctl start apache2
```

Created an App Service on Any Technology

Installed Python3 and Flask:

```
sudo apt install python3-pip -y
pip3 install flask
```

Create a Flask Application

```
mkdir ~/my-flask-app
cd ~/my-flask-app
```

Create a simple Flask app: # python script

```
nano app.py
from flask import Flask
app = Flask(__name__)
@app.route('/')
```

```
def home():  
    return "App Service is running!"  
if __name__ == '__main__':  
    app.run(host='0.0.0.0', port=8080)
```

```
python3 app.py
```

Using Stackdriver (Cloud Monitoring) for Alerts

Go to Cloud Monitoring (formerly Stackdriver) > Monitoring > Create Uptime Check

Name: apache-uptime-check.

Resource Type: Instance.

Path root: /.

Check Frequency: Default (1 minute).

Created an Alerting Policy for Apache

Go to Alerting in Cloud Monitoring>Create Policy

Name: apache-service-down-alert.

Set up the **Condition** and **Configured the Notification Channel** and email notification

Test Apache Failure

```
sudo systemctl stop apache2
```

Set Up Monitoring for the App Service

Uptime Check for Flask App>Uptime Check

Name: flask-app-uptime-check.

Port: 8080

Check Frequency: Default (1 minute).

Go to **Alerting** in Cloud Monitoring.

Create another **Policy** and **Set up the Condition** and **Configured the Notification Channel**

Test the Flask App Failure

```
pkill -f app.py
```