

## **GCP Architect Training**

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

### **GCP-Module-3-Assignment-2-GCP Storage COMPLETED by Nagesha KS**

**Please check the following screenshots for each question.**

#### **Tasks To Be Performed:**

1. Download this SQL-file on your system.
2. Create a bucket on Google storage for each of the following:
  - Hot
  - Cold
  - Multi Region
3. Upload the SQL-file in each of the regions, and compare the download from all the buckets.
4. The bucket with the lowest latency, use it to import this database to Cloud SQL.

Welcome – Nagesha-GCP-Proj x +

console.cloud.google.com/welcome/new?project=nagesha-gcp-project-1

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use. Dismiss **Activate**

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

# Welcome, Nagesha K S

**You're in free trial**

₹57 out of ₹25,093 credits used  
Expires 4 January 2025  
[What happens when trial ends?](#)

**ACTIVATE FULL ACCOUNT**

You're working on project **Nagesha-GCP-Project 1**

Number: 872634317172 ID: nagesha-gcp-project-1

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

Try our most advanced model: Gemini 1.5 Pro

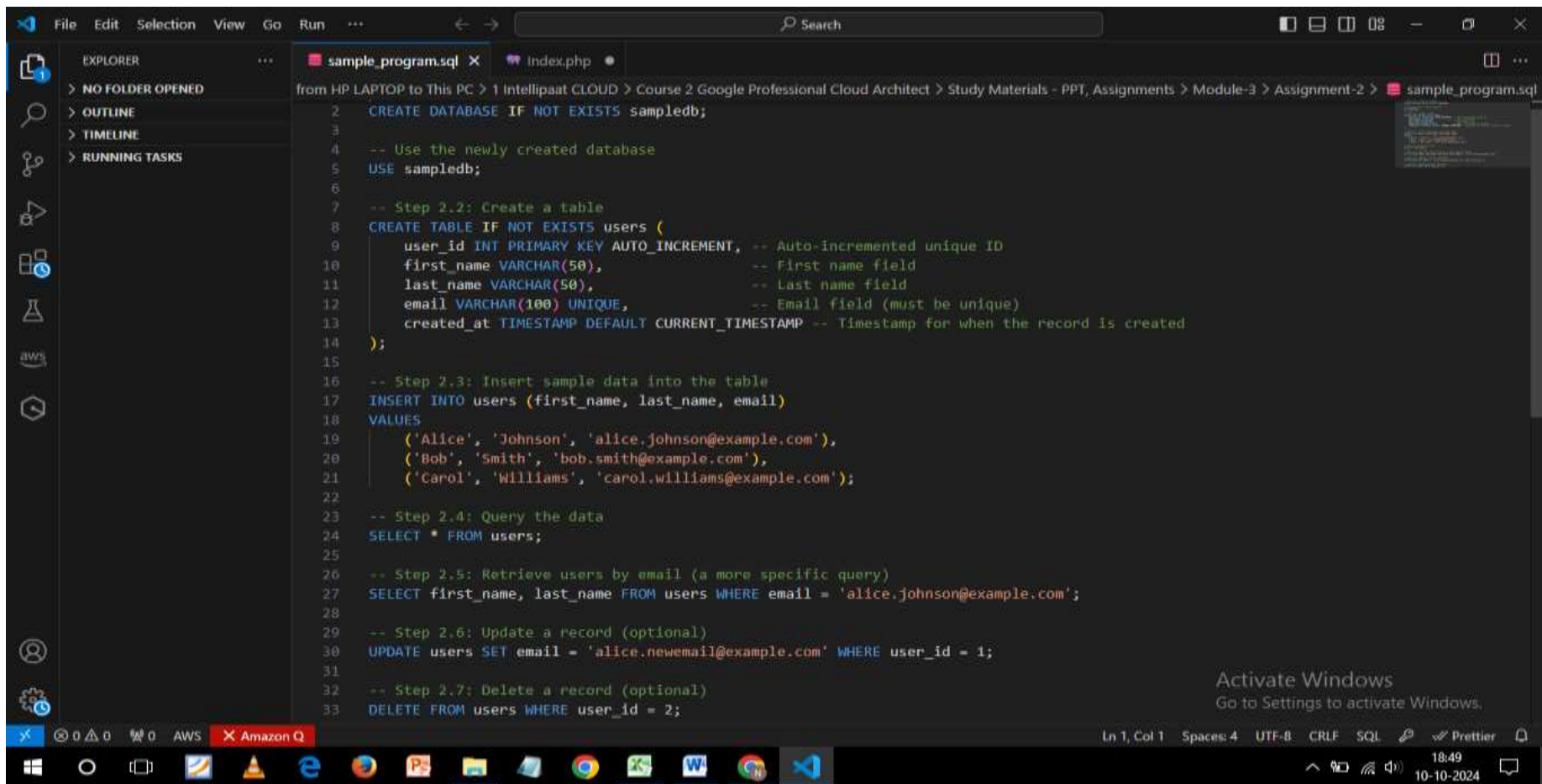
Try Gemini →

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

Activate Windows  
Go to Settings to activate Windows.

Pre-built solution templates ?





Welcome - Nagesha-GCP-Proj

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

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.

Dismiss

Activate

Google Cloud


Nagesha-GCP-Project 1

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


Search

5

N

 Welcome, Nagesha K S

You're in free trial

 ₹57 out of ₹25,093 credits used

You're working on project [Nagesha-GCP-Project 1](#)

Number: 872634317172 ID: nagesha-gcp-project-1

Try our most advanced model: Gemini 1.5 Pro

CLOUD SHELL

Terminal (nagesha-gcp-project-1)

Open editor

Settings

Help

Fullscreen

Close

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.

Windows taskbar with icons for File Explorer, Edge, Word, and others.

System tray showing time 18:50 and date 10-10-2024.

Welcome – Nagesha-GCP-Proj

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

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.

Dismiss

Activate

Google Cloud

Nagesha-GCP-Project 1

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

Search

5

N

Welcome, Nagesha K S

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You're working on project [Nagesha-GCP-Project 1](#)

Number: 872634317172 ID: nagesha-gcp-project-1

Try our most advanced model: Gemini 1.5 Pro

CLOUD SHELL

Terminal (nagesha-gcp-project-1)

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

Authorize Cloud Shell

Cloud Shell needs permission to use your credentials for the gsutil command.  
Click Authorise to grant permission to this and future calls.

Reject Authorise

Open editor

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 time 18:51 and date 10-10-2024.

Welcome - Nagesha-GCP-Proj x

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

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use. Dismiss **Activate**

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

Welcome, Nagesha K S

You're in free trial ₹57 out of ₹25,093 credits used

You're working on project [Nagesha-GCP-Project 1](#) ?  
Number: 872634317172 ID: nagesha-gcp-project-1

Try our most advanced model: Gemini 1.5 Pro

Open editor

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

```
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) $ gutil mb -c standard -l us-central1 gs://Nagesha-GCP-Project1-hot-bucket
Creating gs://Nagesha-GCP-Project1-hot-bucket/...
You are attempting to access protected data with no configured
credentials. Please visit https://cloud.google.com/console#/project
and sign up for an account, and then run the "gcloud auth login"
command to configure gutil to use these credentials.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $
```


Activate Windows  
Go to Settings to activate Windows.

18:51  
10-10-2024



Welcome - Nagesha-GCP-Proj

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

Google Cloud

Nagesha-GCP-Project 1

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

Search

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.

Dismiss

Activate

Welcome, Nagesha K S

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₹57 out of ₹25,093 credits used

You're working on project [Nagesha-GCP-Project 1](#)

Number: 872634317172 ID: nagesha-gcp-project-1

Try our most advanced model: Gemini 1.5 Pro

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) $ gsutil mb -c standard -l us-central1 gs://Nagesha-GCP-Project1-hot-bucket
Creating gs://Nagesha-GCP-Project1-hot-bucket/...
You are attempting to access protected data with no configured
credentials. Please visit https://cloud.google.com/console#/project
and sign up for an account, and then run the "gcloud auth login"
command to configure gsutil to use these credentials.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ gsutil mb -c coldline -l us-west1 gs://Nagesha-GCP-Project1-cold-bucket
Creating gs://Nagesha-GCP-Project1-cold-bucket/...
BadRequestException: 400 Invalid bucket name: 'Nagesha-GCP-Project1-cold-bucket'
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $
```

Activate Windows

Go to Settings to activate Windows.

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

System tray showing time 18:52 and date 10-10-2024.

Search - Nagesha-GCP-Project x gcloud auth login | Google Cl... x +

console.cloud.google.com/search?q=gcloud%20auth%20login:searchScope=projects%2Fnagesha-gcp-project-1;tab=all?cloudshell=true&project=nagesha-gcp-project-1

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud - use any remaining credits, then pay only for what you use. Dismiss Activate

Google Cloud Nagesha-GCP-Project 1 gcloud auth login Search

Search ALL DOCUMENTATION AND TUTORIALS RESOURCES MARKETPLACE AND APIS SEND FEEDBACK

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

```
and sign up for an account, and then run the "gcloud auth login"
command to configure gsutil to use these credentials.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ gsutil mb -c coldline -l us-west1 gs://Nagesha-GCP-Project1-cold-bucket
Creating gs://Nagesha-GCP-Project1-cold-bucket/...
BadRequestException: 400 Invalid bucket name: 'Nagesha-GCP-Project1-cold-bucket'
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ ^C
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ cler
-bash: cler: command not found
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ clear
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ gcloud auth login

You are already authenticated with gcloud when running
inside the Cloud Shell and so do not need to run this
command. Do you wish to proceed anyway?

Do you want to continue (Y/n)? Y

Go to the following link in your browser, and complete the sign-in prompts:

https://accounts.google.com/o/oauth2/auth?response_type=code&client_id=32555940559.apps.googleusercontent.com&redirect_uri=https%3A%2F%2Fadk.cloud.google.com%2Fauthco
de.html&scope=openid+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fuserinfo.email+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcloud-platform+https%3A%2F%2Fwww.googleapis.com%2F
auth%2Fappengine.admin+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fsqlservice.login+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcompute+https%3A%2F%2Fwww.googleapis.com%2Faut
h%2Faccounts.reauth&state=3aRMOX46B1qo115P8uJBNDqQb00AaL6prompt=consent&token_usage=remote&access_type=offline&code_challenge=25xudTeh2gQggyNxdPrCbG1R119r8IN_22UhZbrx7Qg&
code_challenge_method=S256

Once finished, enter the verification code provided in your browser: 
```

Activate Windows. Go to Settings to activate Windows.

18:56 10-10-2024





## Sign in to the gcloud CLI

You are seeing this page because you ran the following command in the gcloud CLI from this or another machine. If this is not the case, close this tab.

```
gcloud auth login --no-launch-browser
```

Enter the following verification code in gcloud CLI on the machine you want to log into. This is a credential **similar to your password** and should not be shared with others.

```
4/0AVG7f1SNDbRUxTOM-qTK_ZbFMSjukY7pjz1  
IkmjlpMLB_1jddaZGKQW-q1XJt4h3yHidQQ
```

Copy

You can close this tab when you're done.

Activate Windows  
Go to Settings to activate Windows.

4/0AVG7fiSNDbRUxTOM-qTK\_ZbFMSjukY7pjz1lkmjlpMLB\_1jddaZGKQW-q1XJt4h3yHidQQ

The screenshot shows a web browser window with the Google Cloud console. The browser tabs include 'Search - Nagesha-GCP-Project', 'gcloud auth login | Google Cl...', and 'gcloud CLI Remote Login'. The address bar shows the URL: `console.cloud.google.com/search?q=gcloud%20auth%20login:searchScope=projects%2Fnagesha-gcp-project-1:tab=all?cloudshell=true&project=nagesha-gcp-project-1`. A banner at the top indicates a free trial status of ₹25,036.17 credit and 86 days remaining, with buttons for 'Dismiss' and 'Activate'.

The main content area is titled 'Search' and includes tabs for 'ALL', 'DOCUMENTATION AND TUTORIALS', 'RESOURCES', and 'MARKETPLACE AND APIS'. Below this is a 'CLOUD SHELL' section with a 'Terminal' tab for the project 'nagesha-gcp-project-1'. The terminal window shows the following commands and output:

```
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ ^C
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ clear
-bash: clear: command not found
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ clear
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ gcloud auth login

You are already authenticated with gcloud when running
inside the Cloud Shell and so do not need to run this
command. Do you wish to proceed anyway?

Do you want to continue (Y/n)? Y

Go to the following link in your browser, and complete the sign-in prompts:

https://accounts.google.com/o/oauth2/auth?response_type=code&client_id=32555940559.apps.googleusercontent.com&redirect_uri=https%3A%2F%2Fsdk.cloud.google.com%2Fauthcode.html&scope=openid%2Fhttps%3A%2F%2Fwww.googleapis.com%2Fauth%2Fuserinfo.email%2Fhttps%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcloud-platform%2Fhttps%3A%2F%2Fwww.googleapis.com%2Fauth%2Fappengine.admin%2Fhttps%3A%2F%2Fwww.googleapis.com%2Fauth%2Fsqlservice.login%2Fhttps%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcompute%2Fhttps%3A%2F%2Fwww.googleapis.com%2Fauth%2Faccounts.reauth&state=3aRMOX48B1qo1l5P8uJBNDqQb00AaL&prompt=consent&token_usage=remote&access_type=offline&code_challenge=25xudTehZqQsyNxdPtCbC1Rl19rBIN_22UhZbrx7Qg&code_challenge_method=S256

Once finished, enter the verification code provided in your browser: 4/0AVG7fiSNDbRUxTOM-qTK_ZbFMSjukY7pjz1lkmjlpMLB_1jddaZGKQW-q1XJt4h3yHidQQ

You are now logged in as [nagesha.ks@gmail.com].
Your current project is [nagesha-gcp-project-1]. You can change this setting by running:
$ gcloud config set project PROJECT_ID
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $
```

An 'Activate Windows' watermark is visible in the bottom right corner of the terminal window.

Search = Nagesha-GCP-Project x gcloud auth login | Google Cl x gcloud CLI Remote Login x +

console.cloud.google.com/search?q=gcloud%20auth%20login;searchScope=projects%2Fnagesha-gcp-project-1;tab=all?cloudshell=true&project=nagesha-gcp-project-1

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use. Dismiss **Activate**

Google Cloud Nagesha-GCP-Project 1 gcloud auth login Search

Search ALL DOCUMENTATION AND TUTORIALS RESOURCES MARKETPLACE AND APIS SEND FEEDBACK

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

```
https://accounts.google.com/o/oauth2/auth?response_type=code&client_id=32555940559.apps.googleusercontent.com&redirect_uri=https%3A%2F%2Fsdk.cloud.google.com%2Fauthcode.html&scope=openid+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fuserinfo.email+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcloud-platform+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fappengine.admin+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fsqlservice.login+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcompute+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Faccounts.reauth&state=3aRMOX48Blqo115P8uJBNdqQbOOAaL&prompt=consent&token_usage=remote&access_type=offline&code_challenge=25xudTeh2qQsyNxdPtCbC1R119rBIN_22UhZbrx7Qg&code_challenge_method=S256

Once finished, enter the verification code provided in your browser: 4/0AVG7fiSNDbRUxTOM-qTK_ZbFMSjukY7pjz1IkmlpMLB_1jddaZGKQW-q1XJt4h3yHidQQ

You are now logged in as [nagesha.ks@gmail.com].
Your current project is [nagesha-gcp-project-1]. You can change this setting by running:
$ gcloud config set project PROJECT_ID
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ gsutil mb -c standard -l us-central1 gs://Nagesha-GCP-Project1-hot-bucket
Creating gs://Nagesha-GCP-Project1-hot-bucket/...
BadRequestException: 400 Invalid bucket name: 'Nagesha-GCP-Project1-hot-bucket'
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ ^C
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) $
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ gsutil mb -c standard -l us-central1 gs://nagesha-gcp-project1-hot-bucket
Creating gs://nagesha-gcp-project1-hot-bucket/...
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ gsutil mb -c coldline -l us-west1 gs://nagesha-gcp-project1-cold-bucket
Creating gs://nagesha-gcp-project1-cold-bucket/...
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ gsutil mb -c standard -l us gs://nagesha-gcp-project1-multi-region-bucket
Creating gs://nagesha-gcp-project1-multi-region-bucket/...
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1) $ gsutil cp sample_program.sql gs://nagesha-gcp-project1-hot-bucket
CommandException: No URLs matched: sample_program.sql
```

Activate Windows  
Go to Settings to activate Windows.

19:07  
10-10-2024

Search - Nagesha-GCP-Project x gcloud auth login | Google Cl x gcloud CLI Remote Login x +

console.cloud.google.com/search?q=gcloud%20auth%20login:searchScope=projects%2Fnagesha-gcp-project-1;tab=all?cloudshell=true&project=nagesha-gcp-project-1

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Google Cloud Nagesha-GCP-Project 1 gcloud auth login Search

Search ALL DOCUMENTATION AND TUTORIALS RESOURCES MARKETPLACE AND APIS SEND FEEDBACK

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

```
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gsutil mb -c standard -l us-central1 gs://nagesha-gcp-project1-hot-bucket
Creating gs://nagesha-gcp-project1-hot-bucket/...
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gsutil mb -c coldline -l us-west1 gs://nagesha-gcp-project1-cold-bucket
Creating gs://nagesha-gcp-project1-cold-bucket/...
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gsutil mb -c standard -l us gs://nagesha-gcp-project1-multi-region-bucket
Creating gs://nagesha-gcp-project1-multi-region-bucket/...
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gsutil cp sample_program.sql gs://nagesha-gcp-project1-hot-bucket
CommandException: No URLs matched: sample_program.sql
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ nano sample_program.sql
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gsutil cp sample_program.sql gs://nagesha-gcp-project1-hot-bucket
Copying file://sample_program.sql [Content-Type=application/sql]...
- [1 files][ 1.2 KiB/ 1.2 KiB]
Operation completed over 1 objects/1.2 KiB.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gsutil cp sample_program.sql gs://nagesha-gcp-project1-cold-bucket
Copying file://sample_program.sql [Content-Type=application/sql]...
/ [1 files][ 1.2 KiB/ 1.2 KiB]
Operation completed over 1 objects/1.2 KiB.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gsutil cp sample_program.sql gs://nagesha-gcp-project1-multi-region-bucket
Copying file://sample_program.sql [Content-Type=application/sql]...
/ [1 files][ 1.2 KiB/ 1.2 KiB]
Operation completed over 1 objects/1.2 KiB.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ time gsutil cp gs://nagesha-gcp-project1-hot-bucket/sample_program.sql
CommandException: Wrong number of arguments for "cp" command.

real    0m1.585s
user    0m1.319s
sys      0m0.256s
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
```

Activate Windows  
Go to Settings to activate Windows.

19:07  
10-10-2024



Search = Nagesha-GCP-Project x gcloud auth login | Google Cl x gcloud CLI Remote Login x +

console.cloud.google.com/search?q=gcloud%20auth%20login;searchScope=projects%2Fnagesha-gcp-project-1;tab=all?cloudshell=true&project=nagesha-gcp-project-1 ☆ N

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Google Cloud Nagesha-GCP-Project 1 gcloud auth login Search 5 ? N

Search ALL DOCUMENTATION AND TUTORIALS RESOURCES MARKETPLACE AND APIS SEND FEEDBACK

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

```
CommandException: No URLs matched: sample_program.sql
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ nano sample_program.sql
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gsutil cp sample_program.sql gs://nagesha-gcp-project1-hot-bucket
Copying file://sample_program.sql [Content-Type=application/sql]...
- [1 files][ 1.2 KiB/ 1.2 KiB]
Operation completed over 1 objects/1.2 KiB.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gsutil cp sample_program.sql gs://nagesha-gcp-project1-cold-bucket
Copying file://sample_program.sql [Content-Type=application/sql]...
/ [1 files][ 1.2 KiB/ 1.2 KiB]
Operation completed over 1 objects/1.2 KiB.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gsutil cp sample_program.sql gs://nagesha-gcp-project1-multi-region-bucket
Copying file://sample_program.sql [Content-Type=application/sql]...
/ [1 files][ 1.2 KiB/ 1.2 KiB]
Operation completed over 1 objects/1.2 KiB.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ time gsutil cp gs://nagesha-gcp-project1-hot-bucket/sample_program.sql
CommandException: Wrong number of arguments for "cp" command.

real    0m1.585s
user    0m1.319s
sys     0m0.256s
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ time gsutil cp gs://nagesha-gcp-project1-cold-bucket/sample_program.sql
CommandException: Wrong number of arguments for "cp" command.

real    0m1.477s
user    0m1.231s
sys     0m0.238s
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
```

Activate Windows  
Go to Settings to activate Windows.

19:08  
10-10-2024



Search - Nagesha-GCP-Project x gcloud auth login | Google Cl x gcloud CLI Remote Login x +

console.cloud.google.com/search?q=gcloud%20auth%20login;searchScope=projects%2Fnagesha-gcp-project-1;tab=all?cloudshell=true&project=nagesha-gcp-project-1

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use. Dismiss Activate

Google Cloud Nagesha-GCP-Project 1 gcloud auth login Search 5 ? : N

Search ALL DOCUMENTATION AND TUTORIALS RESOURCES MARKETPLACE AND APIS SEND FEEDBACK

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

```
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gsuтил cp sample_program.sql gs://nagesha-gcp-project1-cold-bucket
Copying file://sample_program.sql [Content-Type=application/sql]...
/ [1 files][ 1.2 KiB/ 1.2 KiB]
Operation completed over 1 objects/1.2 KiB.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gsuтил cp sample_program.sql gs://nagesha-gcp-project1-multi-region-bucket
Copying file://sample_program.sql [Content-Type=application/sql]...
/ [1 files][ 1.2 KiB/ 1.2 KiB]
Operation completed over 1 objects/1.2 KiB.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ time gsuтил cp gs://nagesha-gcp-project1-hot-bucket/sample_program.sql
CommandException: Wrong number of arguments for "cp" command.

real    0m1.585s
user    0m1.319s
sys     0m0.256s
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ time gsuтил cp gs://nagesha-gcp-project1-cold-bucket/sample_program.sql
CommandException: Wrong number of arguments for "cp" command.

real    0m1.477s
user    0m1.231s
sys     0m0.238s
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ time gsuтил cp gs://nagesha-gcp-project1-multi-region-bucket/sample_program.sql
CommandException: Wrong number of arguments for "cp" command.

real    0m1.488s
user    0m1.236s
sys     0m0.243s
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
```

Activate Windows  
Go to Settings to activate Windows.

19:09  
10-10-2024

SQL - Nagesha-GCP-Project... x gcloud auth login | Google Cl... x gcloud CLI Remote Login x +

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

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use. Dismiss Activate

Google Cloud Nagesha-GCP-Project 1 sq Search 5 ? : N

## Cloud SQL

Cloud SQL offers a fully-managed database service for MySQL, PostgreSQL and SQL server, reducing your overall cost of operations and freeing up teams to focus on innovation.

[CREATE INSTANCE WITH YOUR FREE CREDITS](#) [MIGRATE DATABASE](#)

LEARN Tutorial ⓘ x

Recommended for you

Cloud SQL overview [↗](#)

Help document

Learn about Cloud SQL.

Cloud SQL features by database engine [↗](#)

Help document

Learn about the Cloud SQL features for each database engine.

Cloud SQL for MySQL features [↗](#)

Help document

Learn about Cloud SQL for MySQL features.

CLOUD SHELL

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

[Open editor](#)

user 0m1.231s

sys 0m0.238s

nagesha\_ks@cloudshell:~ (nagesha-gcp-project-1)\$ time gsutil cp gs://nagesha-gcp-project1-multi-region-bucket/sample\_program.sql

CommandException: Wrong number of arguments for "cp" command.

real 0m1.488s

user 0m1.236s

sys 0m0.243s

nagesha\_ks@cloudshell:~ (nagesha-gcp-project-1)\$

Activate Windows

Go to Settings to activate Windows.

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

System tray showing time 19:12 and date 10-10-2024.

Create an instance ~ SQL - Nagesha x gcloud auth login | Google Cloud x gcloud CLI Remote Login x +


console.cloud.google.com/sql/choose-instance-engine?cloudshell=true&project=nagesha-gcp-project-1

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use. Dismiss Activate

Google Cloud Nagesha-GCP-Project 1 sq Search 5 ? N


SQL Create an instance

### Choose your database engine

 **MySQL**


Versions: 8.4, 8.0, 5.7, 5.6

[Choose MySQL](#)

 **PostgreSQL**

Versions: 16, 15, 14, 13, 12, 11, 10, 9.6

[Choose PostgreSQL](#)

 **SQL Server**

Versions: 2022, 2019, 2017

[Choose SQL Server](#)

Want more context on the Cloud SQL database engines? [Learn more](#)

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

```
user 0m1.231s
sys 0m0.238s
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ time gutil cp gs://nagesha-gcp-project1-multi-region-bucket/sample_program.sql
CommandException: Wrong number of arguments for "cp" command.

real 0m1.488s
user 0m1.236s
sys 0m0.243s
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
```

Activate Windows  
Go to Settings to activate Windows.

19:13  
10-10-2024

SQL - Nagesha-GCP-Project... x

gcloud auth login | Google Cl... x

gcloud CLI Remote Login x

+

console.cloud.google.com/sql/instances/create?engine=MySQL?cloudshell=true&project=nagesha-gcp-project-1

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Nagesha-GCP-Project 1

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

Search

5

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N

Create a MySQL instance

### Choose a Cloud SQL edition

A Cloud SQL edition determines foundational characteristics of your instance. Choose the best option for your price and performance needs.[Learn more](#)

☒ Enterprise Plus

- 99.99% availability SLA
- Sub-second planned maintenance downtime
- Near-zero downtime instance scale-up
- Performance-optimised

☐ Enterprise

- 99.95% availability SLA
- Less than 60 seconds planned maintenance downtime
- General purpose machines
- Up to 7 days point-in-time

### Summary

Cloud SQL edition	Enterprise Plus
Region	us-central1 (Iowa)
DB version	MySQL 8.0
vCPUs	8 vCPU
RAM	64 GB
Data cache	Enabled (375 GB)
Storage	250 GB
Connections	Public IP
Backup	Automated

CLOUD SHELL

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

user 0m1.231s

sys 0m0.238s

nagesha\_ks@cloudshell:~ (nagesha-gcp-project-1)\$ time gsutil cp gs://nagesha-gcp-project1-multi-region-bucket/sample\_program.sql

CommandException: Wrong number of arguments for "cp" command.

real 0m1.488s

user 0m1.236s

sys 0m0.243s

nagesha\_ks@cloudshell:~ (nagesha-gcp-project-1)\$

Open editor

Activate Windows  
Go to Settings to activate Windows.

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

System tray showing network, volume, and time (19:14 10-10-2024).

SQL - Nagesha-GCP-Project...gcloud auth login | Google C...gcloud CLI Remote Login

console.cloud.google.com/sql/instances/create?engine=MySQL?cloudshell=true&project=nagesha-gcp-project-1

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.

DismissActivate

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Create a MySQL instance

### Choose a Cloud SQL edition

A Cloud SQL edition determines foundational characteristics of your instance. Choose the best option for your price and performance needs [Learn more](#)

#### Enterprise Plus

- 99.99% availability SLA
- Sub-second planned maintenance downtime
- Near-zero downtime instance scale-up
- Performance-optimised machines
- Up to 35 days point-in-time recovery window
- Up to 3x higher read throughput with data cache
- Advanced disaster recovery with easy switchback

#### Enterprise

- 99.95% availability SLA
- Less than 60 seconds planned maintenance downtime
- General purpose machines
- Up to 7 days point-in-time recovery window

### Summary

Cloud SQL edition	Enterprise
Region	us-central1 (Iowa)
DB version	MySQL 8.0
vCPUs	4 vCPU
RAM	16 GB
Data cache	Disabled
Storage	100 GB
Connections	Public IP
Backup	Automated
Availability	Single zone
Point-in-time recovery	Enabled
Network throughput (MB/s)	1,000 of 1,000
IOPS	Read: 3,000 of 15,000 Write: 3,000 of 15,000
Disk throughput (MB/s)	Read: 48.0 of 240.0

CLOUD SHELLTerminal(nagesha-gcp-project-1)

Open editor

Activate Windows  
Go to Settings to activate Windows.

19:16  
10-10-2024



SQL - Nagesha-GCP-Project... x

gcloud auth login | Google Cl... x

gcloud CLI Remote Login x

+

console.cloud.google.com/sql/instances/create?engine=MySQL?cloudshell=true&project=nagesha-gcp-project-1

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.

Dismiss

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Nagesha-GCP-Project 1

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Search

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Create a MySQL instance

with easy switchback

Development

?

COMPARE EDITION PRESETS

Instance info

Database version \*  
MySQL 8.0

SHOW MINOR VERSIONS

Instance ID \*  
nagesha-gcp-project1-sql-instance

Use lowercase letters, numbers and hyphens. Start with a letter.

Password \*  
GENERATE

Set a password for the root user. Learn more.

Summary

Cloud SQL edition ?	Enterprise
Region	us-central1 (Iowa)
DB version	MySQL 8.0
vCPUs	4 vCPU
RAM	16 GB
Data cache	Disabled
Storage	100 GB
Connections	Public IP
Backup	Automated
Availability	Single zone
Point-in-time recovery	Enabled
Network throughput (MB/s) ?	1,000 of 1,000
IOPS ?	Read: 3,000 of 15,000 Write: 3,000 of 15,000
Disk throughput (MB/s)	Read: 48.0 of 240.0

Activate Windows

Go to Settings to activate Windows.

Open editor

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

Windows taskbar with icons for File Explorer, Edge, Word, etc.

System tray showing time 19:16 and date 10-10-2024.



SQL - Nagesha-GCP-Project-1

gcloud auth login | Google Cloud CLI Remote Login

console.cloud.google.com/sql/instances/create:engine=MySQL?cloudshell=true&project=nagesha-gcp-project-1

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.

DismissActivate

Google CloudNagesha-GCP-Project 1

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Search

Create a MySQL instance

Region

us-central1 (Iowa)

Zonal availability

☒ Single zone

In case of outage, no failover. Not recommended for production.

☐ Multiple zones (highly available)

Automatic failover to another zone within your selected region. Recommended for production instances. Increases cost.

[SPECIFY ZONES](#)

Customise your instance

You can also customise instance configurations later

[SHOW CONFIGURATION OPTIONS](#)

CREATE INSTANCE

CANCEL

Cost estimate

These details represent Cloud SQL compute, memory and storage resources only, and reflect how you configured your instance so far. Discounts not included in estimate. [Learn more](#)

Item	Hourly cost (estimate)
4 vCPU (US\$0.041 per vCPU/hour)	US\$0.17
16 GiB RAM (US\$0.007 per GiB/hour)	US\$0.11
100 GiB SSD (US\$0.17 per GiB/month)	US\$0.02
Total without usage discounts	US\$0.30

Usage and traffic costs

These costs vary based on your feature usage, traffic or data location, and aren't included in the cost estimate above. [Learn more](#)

Backups (US\$0.08 per GiB)

Network data transfer out (variable)

CLOUD SHELL

Terminal

nagesha-gcp-project-1

Open editor

Activate Windows  
Go to Settings to activate Windows.19:17  
10-10-2024

SQL - Nagesha-GCP-Project... x

gcloud auth login | Google Cl... x

gcloud CLI Remote Login x

+

console.cloud.google.com/sql/instances/create:engine=MySQL?cloudshell=true&project=nagesha-gcp-project-1

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.

Dismiss

Activate

Google Cloud

Nagesha-GCP-Project 1

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

Search

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N

← Create a MySQL instance

Region

us-central1 (Iowa)

Zonal availability

☒ Single zone

In case of outage, no failover. Not recommended for production.

☐ Multiple zones (highly available)

Automatic failover to another zone within your selected region. Recommended for production instances. Increases cost.

▼ SPECIFY ZONES

Customise your instance

You can also customise instance configurations later

▼ SHOW CONFIGURATION OPTIONS

CREATING INSTANCE...

CANCEL

Instance is being created

✕

Cost estimate

These items represent Cloud SQL compute, memory and storage resources only, and reflect how you configured your instance so far. Discounts not included in estimate. [Learn more](#)

Item	Hourly cost (estimate)
4 vCPU (US\$0.041 per vCPU/hour)	US\$0.17
16 GiB RAM (US\$0.007 per GiB/hour)	US\$0.11
100 GiB SSD (US\$0.17 per GiB/month)	US\$0.02
Total without usage discounts	US\$0.30

Usage and traffic costs

These costs vary based on your feature usage, traffic or data location, and aren't included in the cost estimate above. [Learn more](#)

Backups (US\$0.08 per GiB)

Network data transfer out (variable) ?

Open editor

Activate Windows

Go to Settings to activate Windows.

Terminal

(nagesha-gcp-project-1) x

+

Windows taskbar with icons for Start, File Explorer, Edge, VS Code, and others.

19:17 10-10-2024

nagesha-gcp-instance - Overview

gcloud auth login | Google Cl...

gcloud CLI Remote Login

console.cloud.google.com/sql/instances/nagesha-gcp-project1-sql-instance/overview?cloudshell=true&project=nagesha-gcp-project-1

Free trial status: ₹25,036,17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.

Dismiss

Activate

Google Cloud

Nagesha-GCP-Project 1

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

Search

5

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SQL

Overview

EDIT

IMPORT

EXPORT

RESTART

STOP

DELETE

CLONE

EXPLORE GEMINI

Primary instance

Overview

Cloud SQL Studio

System insights

Query insights

Connections

Users

Databases

Backups

Replicas

Release notes

All instances > nagesha-gcp-project1-sql-instance

nagesha-gcp-project1-sql-instance

MySQL 8.0

Instance is being created. This may take a few minutes. While this operation is running, you may continue to view information about the instance.

VIEW ALL

1 hour

6 hours

1 day

7 days

30 days

Custom

Chart

CPU utilisation

No data is available for the selected time frame.

Instance is being created

Terminal (nagesha-gcp-project-1)

Uploads and Nagesha-GCP-Project 1 operations

Creating nagesha-gcp-project1-sql-instance 0 min 49 sec

Open editor

10-10-2024



nagesha-gcp-instance - Overview

gcloud auth login | Google Cl...

gcloud CLI Remote Login

console.cloud.google.com/sql/instances/nagesha-gcp-project1-sql-instance/overview?cloudshell=true&project=nagesha-gcp-project-1

Free trial status: ₹25,036.17 credit and 86 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.

Dismiss

Activate

Google Cloud

Nagesha-GCP-Project 1

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Search

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SQL

Overview

EDIT

IMPORT

EXPORT

RESTART

STOP

DELETE

CLONE

EXPLORE GEMINI

Primary instance

Overview

Cloud SQL Studio

System insights

Query insights

Connections

Users

Databases

Backups

Replicas

Release notes

Instance issues (0)

No issues found

Connect to this instance

Connection name

nagesha-gcp-project-1:us-central1:nagesha-gcp-pro

Copy to clipboard

Need help connecting?

Review the documentation to learn about the many ways to connect to your instance. [Learn more](#)

To connect using gcloud, [OPEN CLOUD SHELL](#)

Configuration

vCPUs	Memory	SSD storage
4	16 GB	100 GB

Enterprise edition [UPGRADE](#)

Database version is MySQL 8.0.31

Auto storage increase is enabled

Automated backups are enabled

Point-in-time recovery is enabled

Instance d

Instance is being created

Learn about connecting with a Compute Engine VM,

Uploads and Nagesha-GCP Project 1 operations

Creating nagesha-gcp-project1-sql-instance

1 min 35 sec

Terminal

(nagesha-gcp-project-1)

Open editor

Activate Windows

Go to Settings to activate Windows

19:19

10-10-2024

## Commands

Created a sample SQL-file on my local drive; the file name is: **sample\_program.sql**

-- Step 2.1: Create a database

**CREATE DATABASE IF NOT EXISTS sampled;**

-- Step 2.2: Create a table

**CREATE TABLE IF NOT EXISTS users (**

    user\_id INT PRIMARY KEY AUTO\_INCREMENT, -- Auto-incremented unique ID

    first\_name VARCHAR(50), -- First name field

    last\_name VARCHAR(50), -- Last name field

    email VARCHAR(100) UNIQUE, -- Email field (must be unique)

    created\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP -- Timestamp for when the record is created

**);**

-- Step 2.3: Insert sample data into the table

**INSERT INTO users (first\_name, last\_name, email)**

**VALUES**

    ('Alice', 'Johnson', 'alice.johnson@example.com'),

    ('Bob', 'Smith', 'bob.smith@example.com'),

    ('Carol', 'Williams', 'carol.williams@example.com');

-- Step 2.4: Query the data

**SELECT \* FROM users;**

-- Step 2.5: Retrieve users by email (a more specific query)

SELECT first\_name, last\_name FROM users WHERE email = 'alice.johnson@example.com';

-- Step 2.6: Update a record (optional)

UPDATE users SET email = 'alice.newemail@example.com' WHERE user\_id = 1;

-- Step 2.7: Delete a record (optional)

DELETE FROM users WHERE user\_id = 2;

### **Created GCS Bucket for Hot, cold and Multi-region Storage**

```
gsutil mb -c standard -l us-central1 gs://nagesha-gcp-project1-hot-bucket  
gsutil mb -c coldline -l us-west1 gs://nagesha-gcp-project1-cold-bucket  
gsutil mb -c standard -l us gs://nagesha-gcp-project1-multi-region-bucket
```

### **Uploaded the SQL-File to Each Bucket: Hot, cold and Multi-region Storage**

```
gsutil cp sample_program.sql gs://nagesha-gcp-project1-hot-bucket  
gsutil cp sample_program.sql gs://nagesha-gcp-project1-cold-bucket  
gsutil cp sample_program.sql gs://nagesha-gcp-project1-multi-region-bucket
```

### **Compared Download Latency and recorded the time taken for each download**

```
time gsutil cp gs://nagesha-gcp-project1-hot-bucket/sample_program.sql  
time gsutil cp gs://nagesha-gcp-project1-cold-bucket/sample_program.sql  
time gsutil cp gs://nagesha-gcp-project1-multi-region-bucket/sample_program.sql
```

### **Imported Database to Cloud SQL Using the Bucket with Lowest Latency**

Go to SQL in GCP Console > Created a new MySQL instance nagesha-gcp-project1-sql-instance  
Chose the region as the bucket with the lowest latency

### **Imported the SQL File from GCS to Cloud SQL**

Cloud SQL instance dashboard>Import>

**gs://nagesha-gcp-project1-hot-bucket/sample\_program.sql**

Imported the SQL file into Cloud SQL instance.