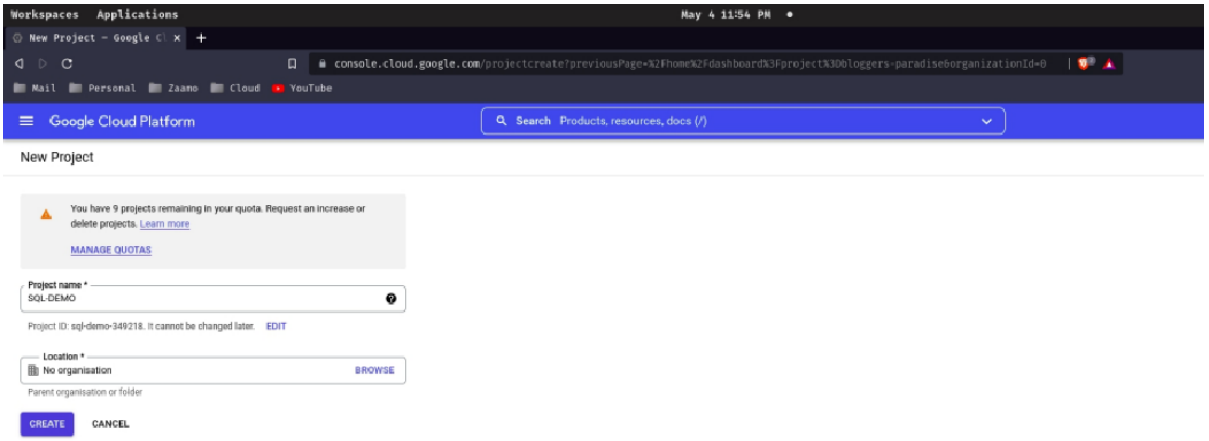
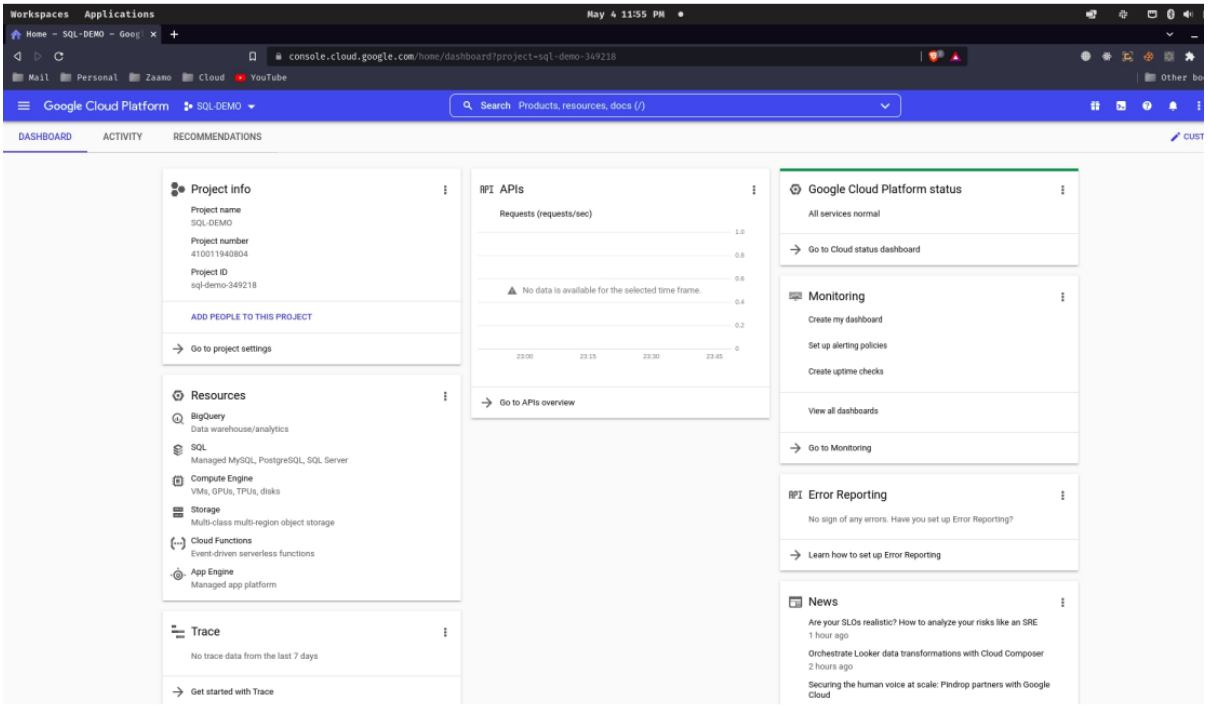
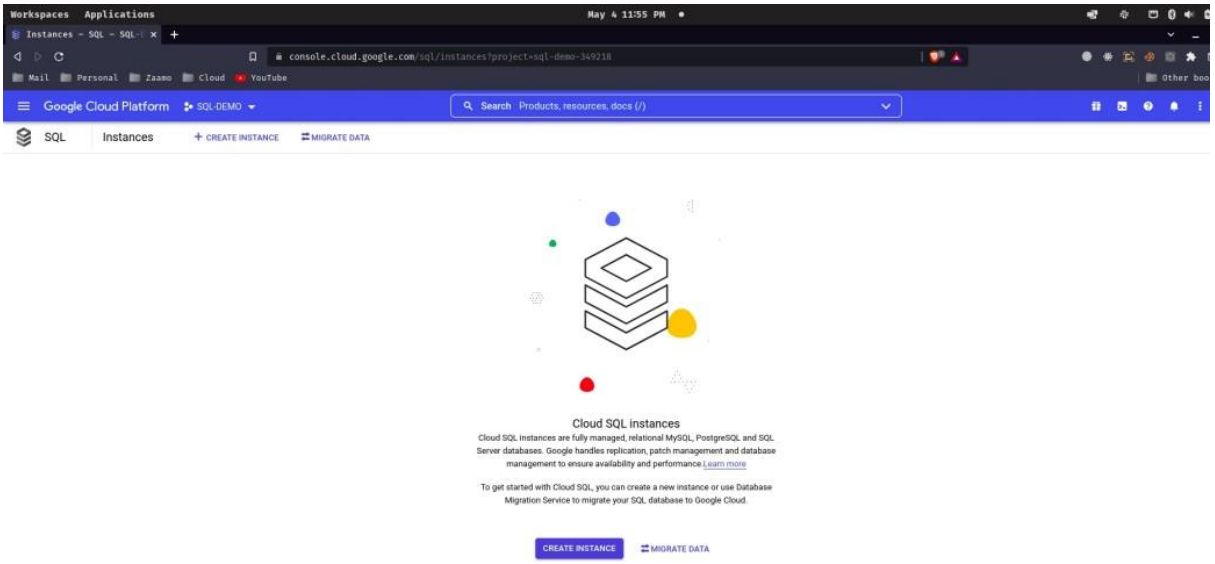
NAME: VATSAL MANVAR
ROLL NO: 19BCE120
SUBJECT: CLOUD COMPUTING
PRACTICAL: 9

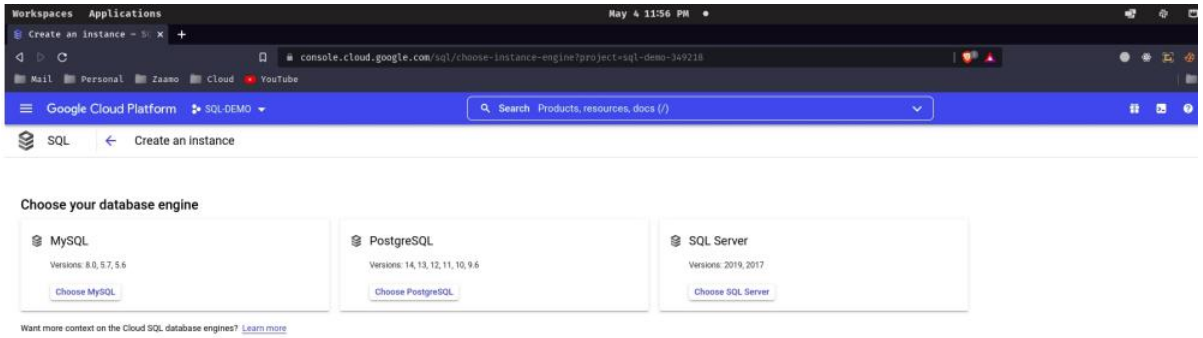
Aim: Google Cloud Platform and SQL integration.

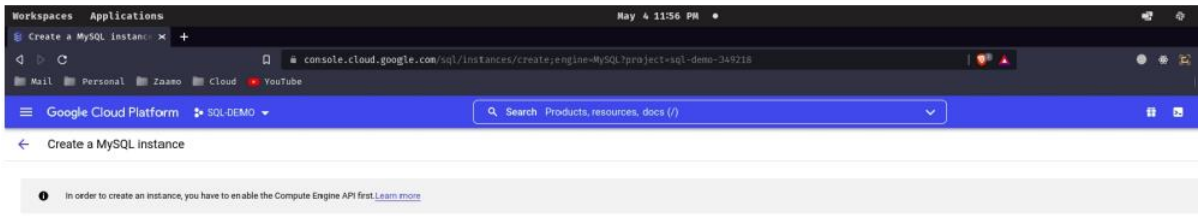
1. After creating a google cloud platform engine create a new project.

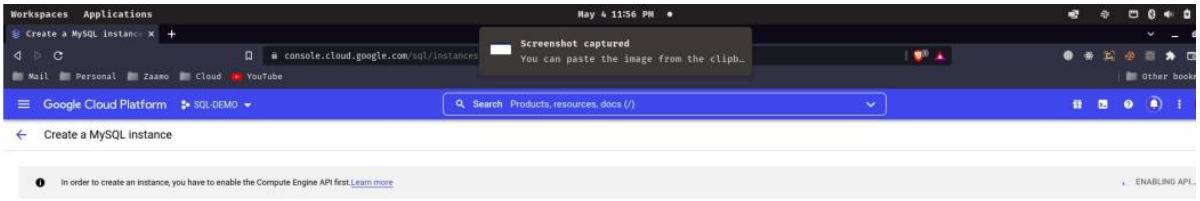


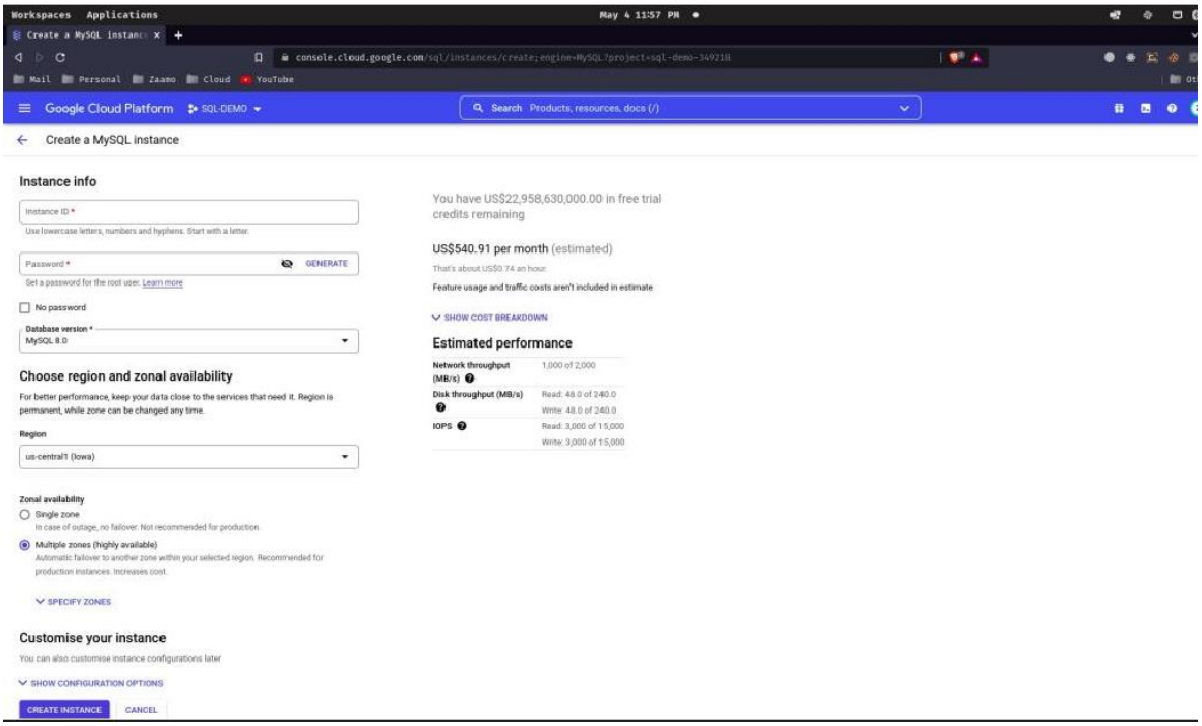


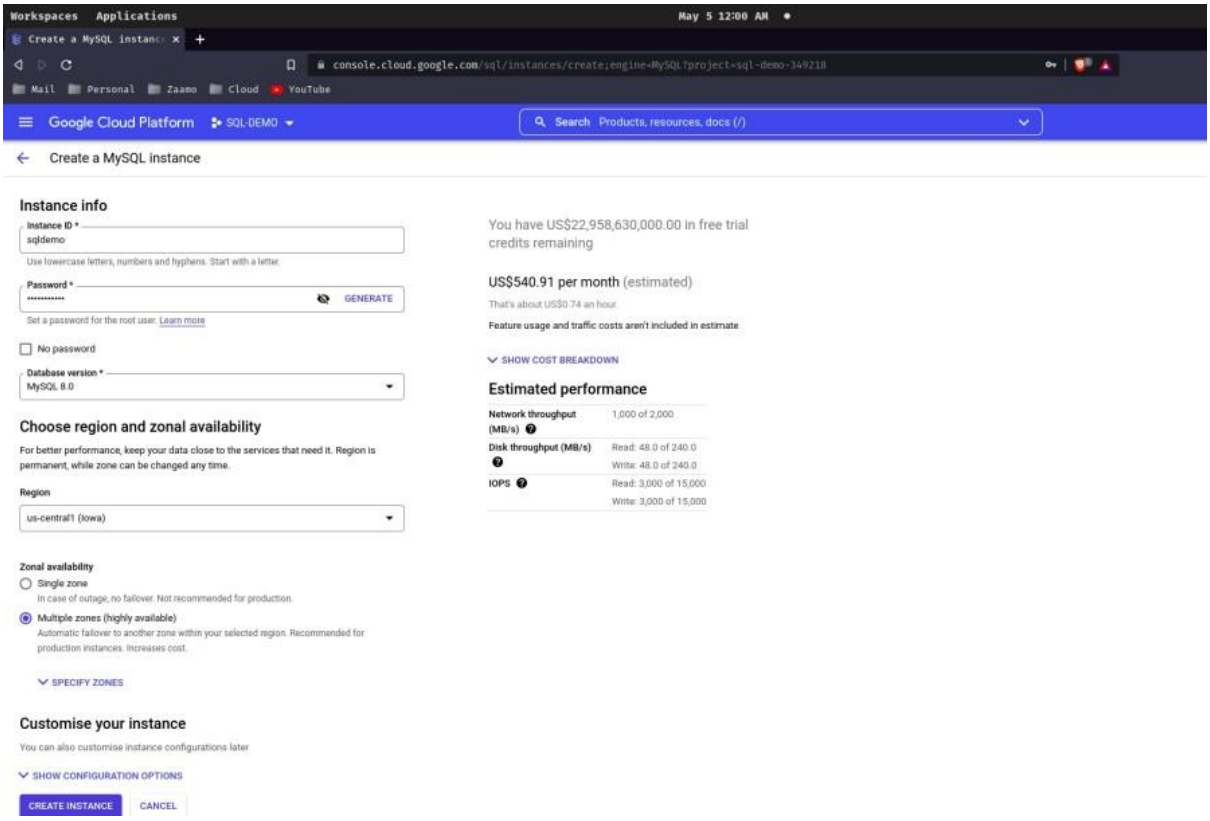

Workspaces Applications
May 4 11:55 PM
Instances - SQL - SQL-
console.cloud.google.com/sql/instances?project=sql-demo-349218
Mail Personal Zaamo Cloud YouTube
Google Cloud Platform
SQL-DEMO
Search Products, resources, docs (/)
SQL
Instances
+ CREATE INSTANCE
MIGRATE DATA
Cloud SQL instances
Cloud SQL instances are fully managed, relational MySQL, PostgreSQL and SQL Server databases. Google handles replication, patch management and database management to ensure availability and performance. Learn more
To get started with Cloud SQL, you can create a new instance or use Database Migration Service to migrate your SQL database to Google Cloud.
CREATE INSTANCE
MIGRATE DATA


Workspaces Applications
May 4 11:56 PM
Create an instance - S
console.cloud.google.com/sql/choose-instance-engine?project=sql-demo-349218
Mail Personal Zaamo Cloud YouTube
Google Cloud Platform
SQL-DEMO
Search Products, resources, docs (/)
SQL
Create an instance
Choose your database engine
MySQL
Versions: 8.0, 5.7, 5.6
Choose MySQL
PostgreSQL
Versions: 14, 13, 12, 11, 10, 9.6
Choose PostgreSQL
SQL Server
Versions: 2019, 2017
Choose SQL Server
Want more context on the Cloud SQL database engines? Learn more


Workspaces Applications
May 4 11:56 PM
Create a MySQL instanc
console.cloud.google.com/sql/instances/create;engine=MySQL?project=sql-demo-349218
Mail Personal Zaamo Cloud YouTube
Google Cloud Platform
SQL-DEMO
Search Products, resources, docs (/)
Create a MySQL instance
In order to create an instance, you have to enable the Compute Engine API first. Learn more


Workspaces Applications
May 4 11:56 PM
Create a MySQL instanc
Screenshot captured
You can paste the image from the clipb…
console.cloud.google.com/sql/instances
Mail Personal Zaamo Cloud YouTube
Google Cloud Platform SQL-DEMO
Search Products, resources, docs (/)
Create a MySQL instance
In order to create an instance, you have to enable the Compute Engine API first. Learn more
ENABLING API…


Workspaces Applications
May 4 11:57 PM
Create a MySQL instanc
console.cloud.google.com/sql/instances/create;engine=MySQL?project=sql-demo-349218
Mail Personal Zaamo Cloud YouTube
Google Cloud Platform SQL-DEMO
Search Products, resources, docs (/)
Create a MySQL instance
Instance info
Instance ID *
Use lowercase letters, numbers and hyphens. Start with a letter.
Password *
GENERATE
Set a password for the root user. Learn more
No password
Database version *
MySQL 8.0
Choose region and zonal availability
For better performance, keep your data close to the services that need it. Region is permanent, while zone can be changed any time.
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
You have US$22,958,630,000.00 in free trial credits remaining
US$540.91 per month (estimated)
That's about US$0.74 an hour
Feature usage and traffic costs aren't included in estimate
SHOW COST BREAKDOWN
Estimated performance
Network throughput (MB/s)
1,000 of 2,000
Disk throughput (MiB/s)
Read: 48.0 of 240.0
Write: 48.0 of 240.0
IOPS
Read: 3,000 of 15,000
Write: 3,000 of 15,000


Workspaces Applications
May 5 12:00 AM
Create a MySQL instance
console.cloud.google.com/sql/instances/create;engine=MySQL?project=sql-demo-349218
Mail Personal Zaamo Cloud YouTube
Google Cloud Platform
SQL-DEMO
Search Products, resources, docs (/)
Create a MySQL instance
Instance info
Instance ID *
sqldemo
Use lowercase letters, numbers and hyphens. Start with a letter.
Password *
GENERATE
Set a password for the root user. Learn more
No password
Database version *
MySQL 8.0
Choose region and zonal availability
For better performance, keep your data close to the services that need it. Region is permanent, while zone can be changed any time.
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That's about US$0.74 an hour.
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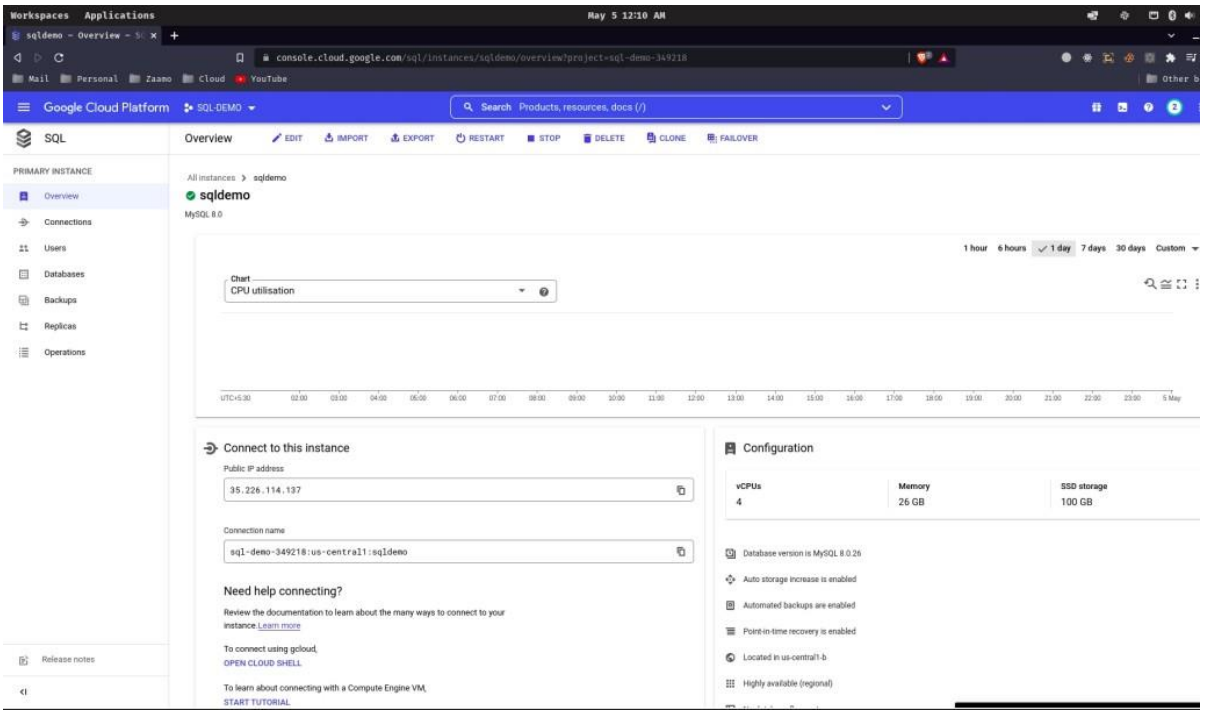
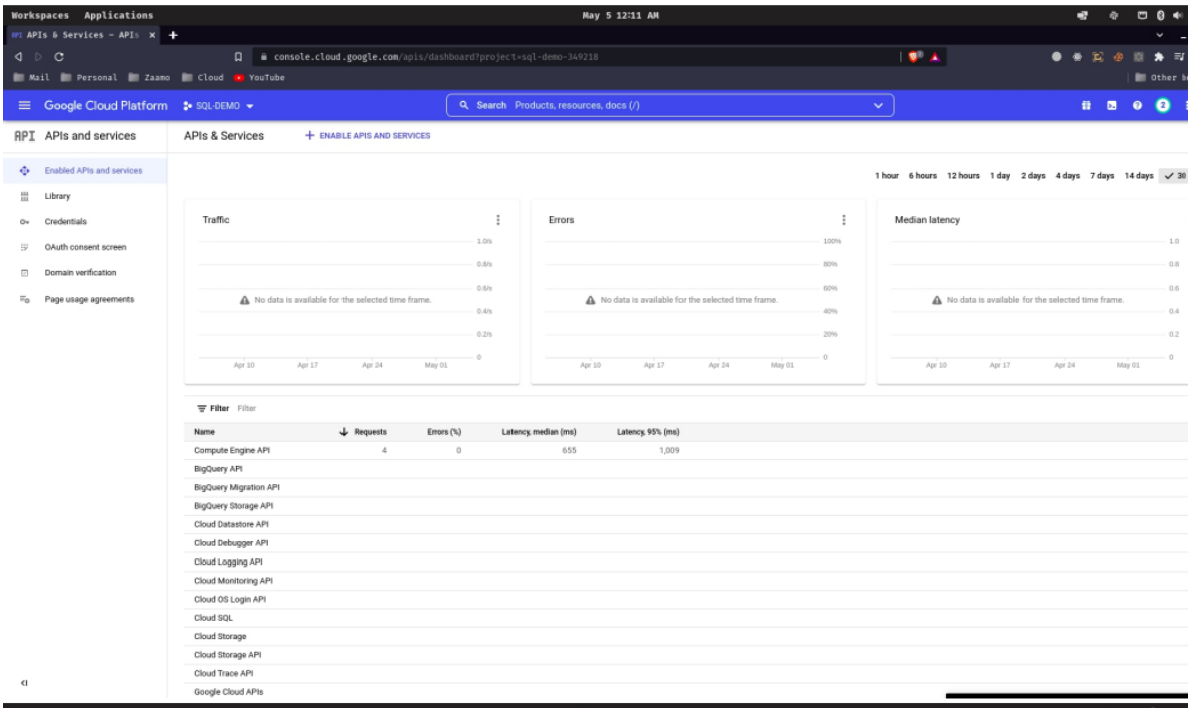
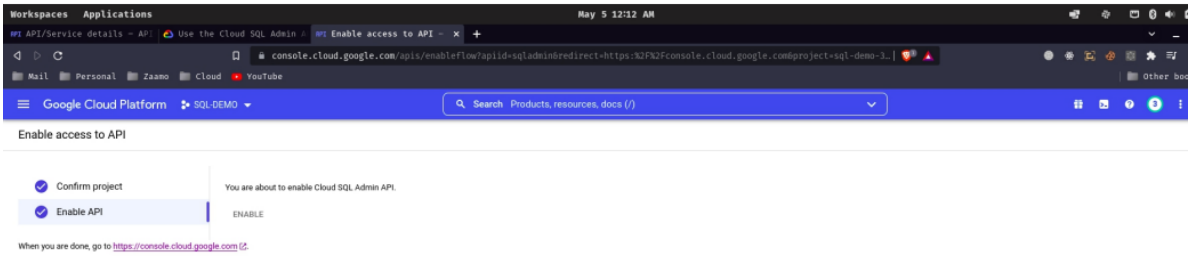
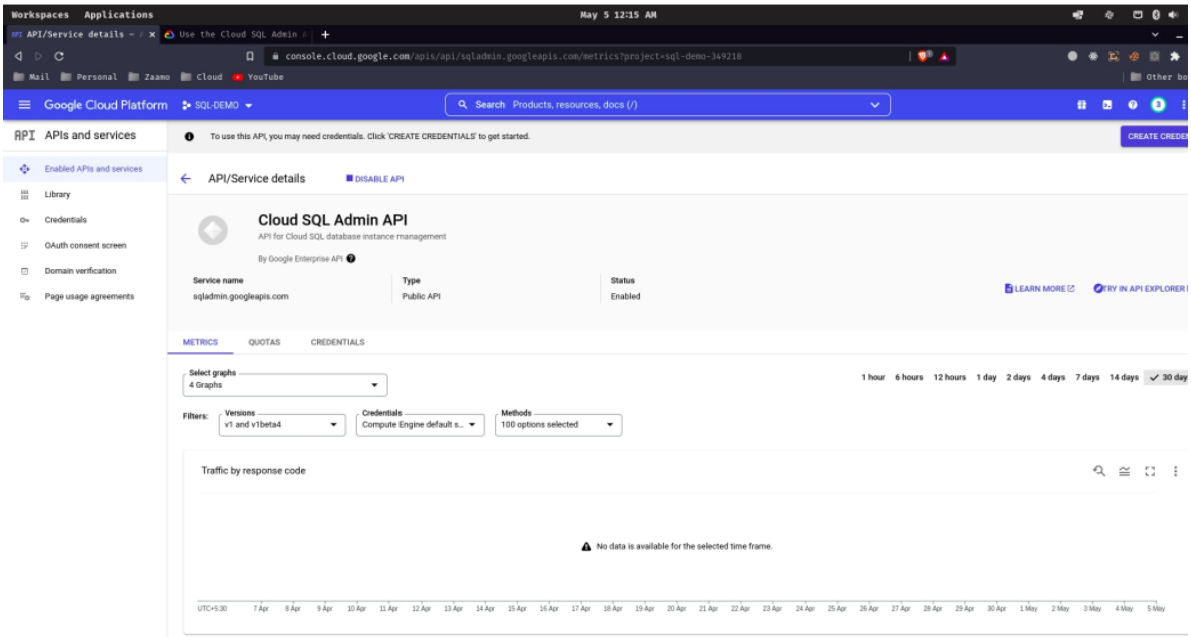
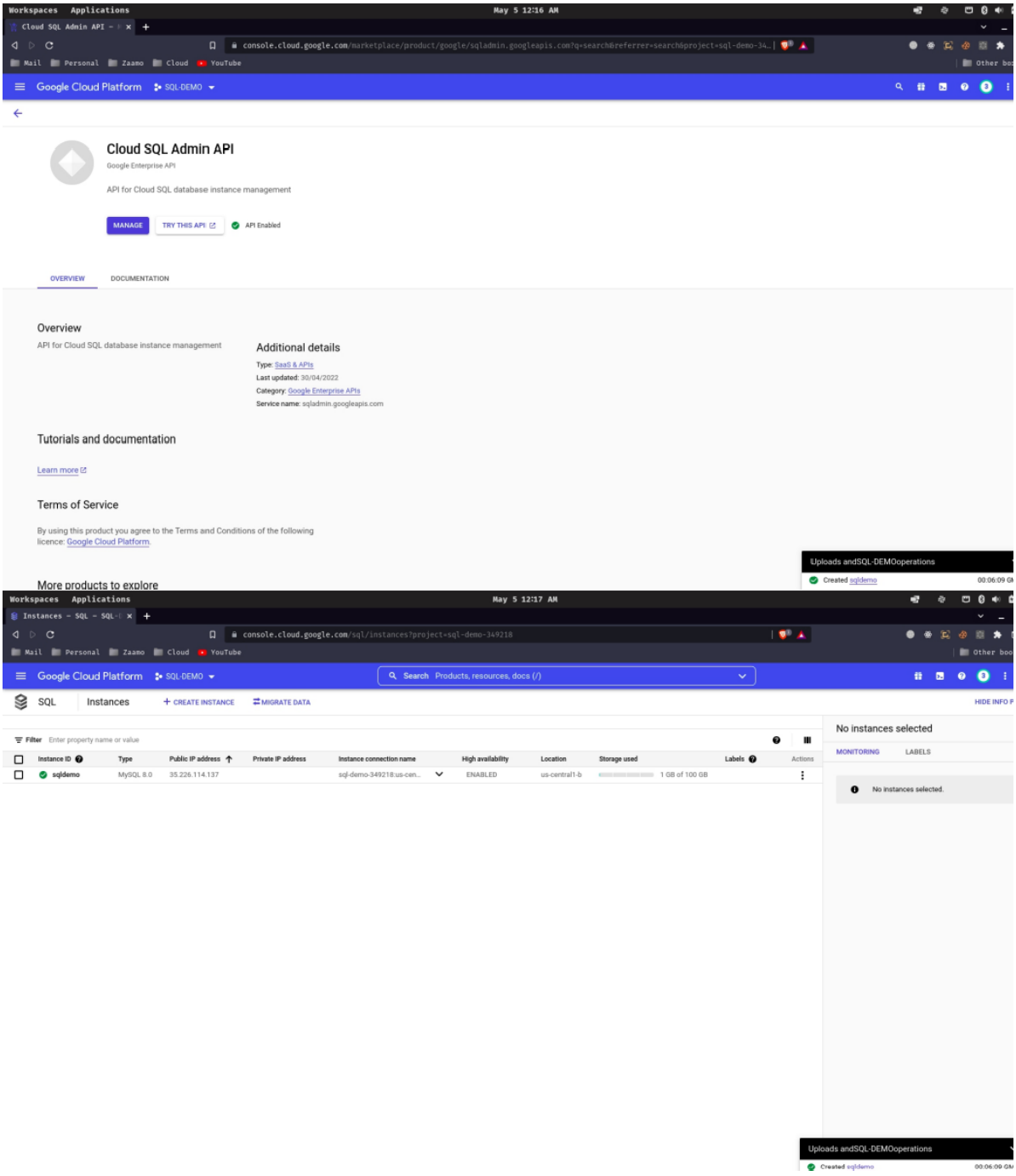
SHOW COST BREAKDOWN
Estimated performance
Network throughput (MB/s)
1,000 of 2,000
Disk throughput (MB/s)
Read: 48.0 of 240.0
Write: 48.0 of 240.0
IOPS
Read: 3,000 of 15,000
Write: 3,000 of 15,000

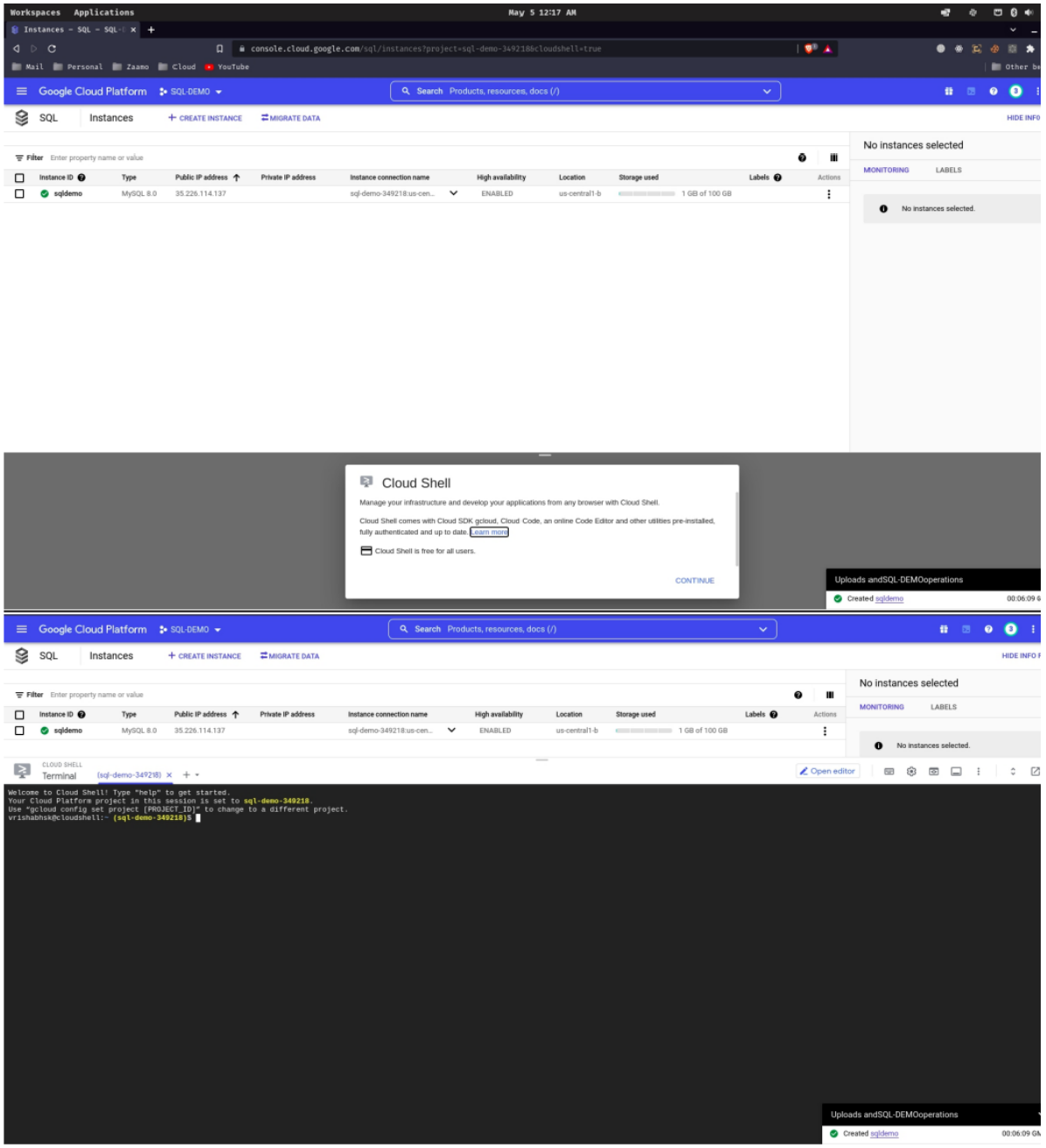

Workspaces Applications
May 5 12:10 AM
sqldemo - Overview
console.cloud.google.com/sql/instances/sqldemo/overview?project=sql-demo-349218
Google Cloud Platform
SQL-DEMO
Search Products, resources, docs (/)
SQL
Overview
EDIT IMPORT EXPORT RESTART STOP DELETE CLONE FAILOVER
PRIMARY INSTANCE
Overview
Connections
Users
Databases
Backups
Replicas
Operations
Release notes
All instances > sqldemo
sqldemo
MySQL 8.0
1 hour 6 hours 1 day 7 days 30 days Custom
Chart
CPU utilisation
Connect to this instance
Public IP address
35.226.114.137
Connection name
sql-demo-349218:us-central1:sqldemo
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
To learn about connecting with a Compute Engine VM,
START TUTORIAL
Configuration
vCPUs
4
Memory
26 GB
SSD storage
100 GB
Database version is MySQL 8.0.26
Auto storage increase is enabled
Automated backups are enabled
Point-in-time recovery is enabled
Located in us-central1-b
Highly available (regional)

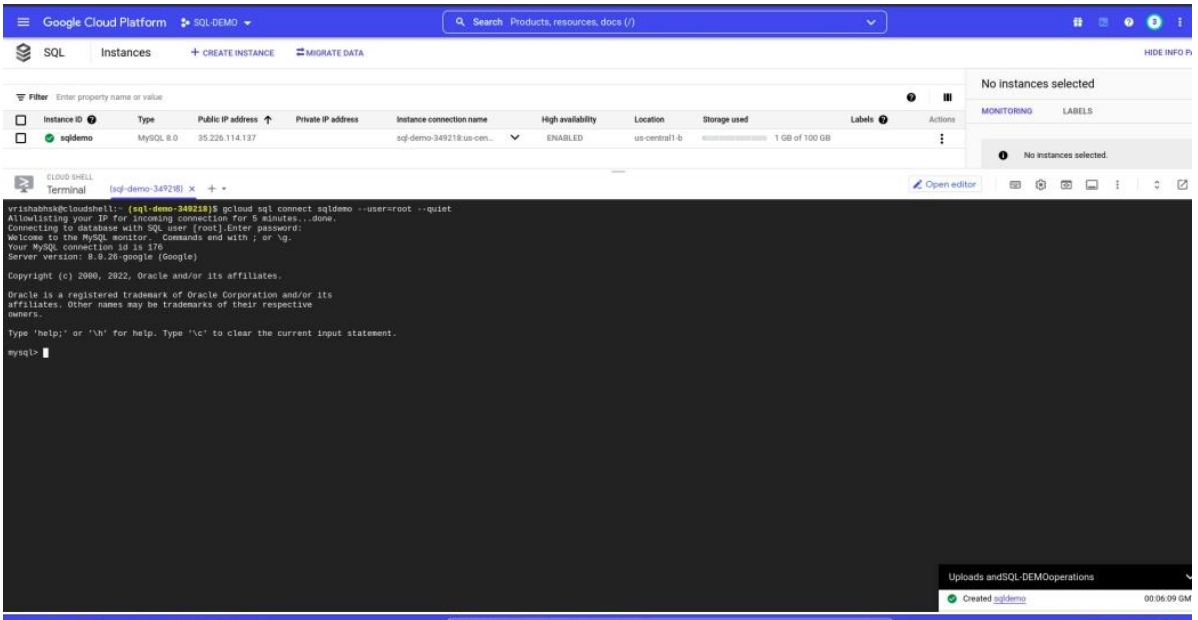

Workspaces Applications
May 5 12:11 AM
APIs & Services - APIs
console.cloud.google.com/apis/dashboard?project=sql-demo-349218
Google Cloud Platform
SQL-DEMO
Search Products, resources, docs (/)
APIs and services
APIs & Services
ENABLE APIS AND SERVICES
Enabled APIs and services
Library
Credentials
OAuth consent screen
Domain verification
Page usage agreements
1 hour 6 hours 12 hours 1 day 2 days 4 days 7 days 14 days 30
Traffic
Errors
Median latency
No data is available for the selected time frame.
Filter
Name
Requests
Errors (%)
Latency, median (ms)
Latency, 95% (ms)
Compute Engine API 4 0 655 1,009
BigQuery API
BigQuery Migration API
BigQuery Storage API
Cloud Datastore API
Cloud Debugger API
Cloud Logging API
Cloud Monitoring API
Cloud OS Login API
Cloud SQL
Cloud Storage
Cloud Storage API
Cloud Trace API
Google Cloud APIs

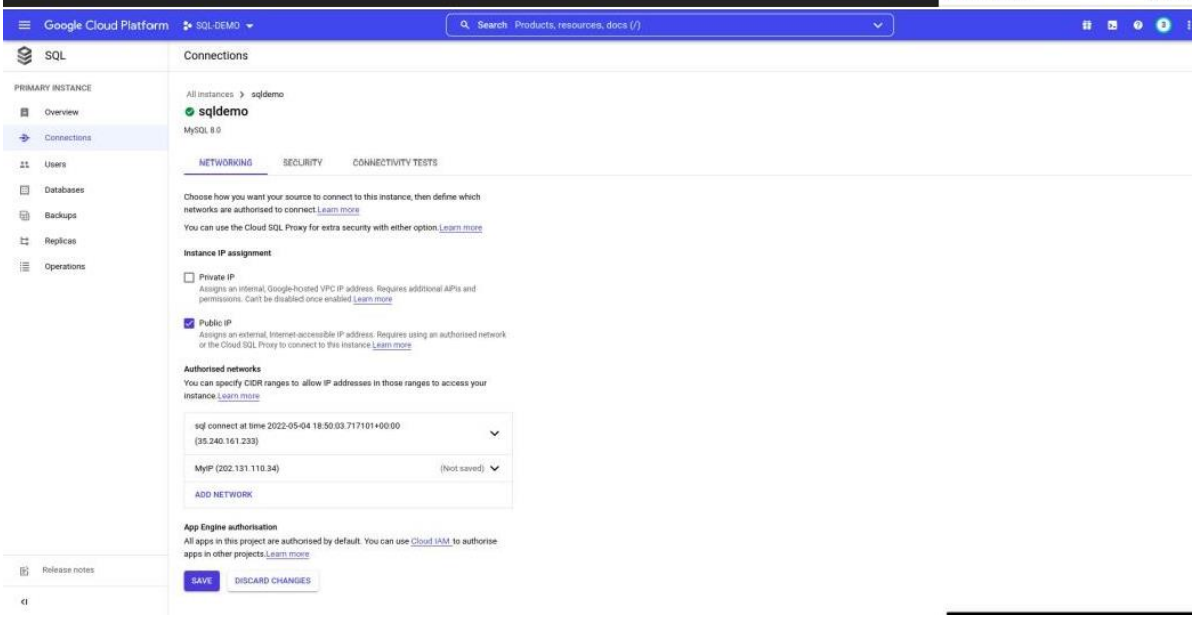

Workspaces Applications
May 5 12:12 AM
API/Service details - API
Use the Cloud SQL Admin
Enable access to API
console.cloud.google.com/apis/enableflow?apiid=sqladmin&redirect=https:%2F%2Fconsole.cloud.google.com&project=sql-demo-3...
Google Cloud Platform
SQL-DEMO
Search Products, resources, docs (/)
Enable access to API
Confirm project
Enable API
You are about to enable Cloud SQL Admin API.
ENABLE
When you are done, go to https://console.cloud.google.com.


Workspaces Applications
May 5 12:15 AM
API/Service details - /
Use the Cloud SQL Admin
console.cloud.google.com/apis/api/sqladmin.googleapis.com/metrics?project=sql-demo-349218
Google Cloud Platform
SQL-DEMO
Search Products, resources, docs (/)
APIs and services
To use this API, you may need credentials. Click 'CREATE CREDENTIALS' to get started.
CREATE CREDE
Enabled APIs and services
Library
Credentials
OAuth consent screen
Domain verification
Page usage agreements
API/Service details
DISABLE API
Cloud SQL Admin API
API for Cloud SQL database instance management
By Google Enterprise API
Service name
sqladmin.googleapis.com
Type
Public API
Status
Enabled
LEARN MORE
TRY IN API EXPLORER
METRICS
QUOTAS
CREDENTIALS
Select graphs
4 Graphs
1 hour 6 hours 12 hours 1 day 2 days 4 days 7 days 14 days 30 day
Filters:
Versions
v1 and v1beta4
Credentials
Compute Engine default s...
Methods
100 options selected
Traffic by response code
No data is available for the selected time frame.
UTC+5:30


Workspaces Applications
May 5 12:16 AM
Cloud SQL Admin API
console.cloud.google.com/marketplace/product/google/sqladmin.googleapis.com?q=search&referrer=search&project=sql-demo-34...
Mail Personal Zaamo Cloud YouTube
Google Cloud Platform SQL-DEMO
Cloud SQL Admin API
Google Enterprise API
API for Cloud SQL database instance management
MANAGE
TRY THIS API
API Enabled
OVERVIEW
DOCUMENTATION
Overview
API for Cloud SQL database instance management
Additional details
Type: SaaS & APIs
Last updated: 30/04/2022
Category: Google Enterprise APIs
Service name: sqladmin.googleapis.com
Tutorials and documentation
Learn more
Terms of Service
By using this product you agree to the Terms and Conditions of the following licence: Google Cloud Platform.
More products to explore
Uploads andSQL-DEMOoperations
Created sqldemo
00:06:09 GM
Workspaces Applications
May 5 12:17 AM
Instances - SQL - SQL
console.cloud.google.com/sql/instances?project=sql-demo-349218
Mail Personal Zaamo Cloud YouTube
Google Cloud Platform SQL-DEMO
Search Products, resources, docs (/)
SQL
Instances
CREATE INSTANCE
MIGRATE DATA
HIDE INFO P
Filter Enter property name or value
Instance ID
Type
Public IP address
Private IP address
Instance connection name
High availability
Location
Storage used
Labels
Actions
sqldemo
MySQL 8.0
35.226.114.137
sql-demo-349218:us-cen...
ENABLED
us-central1-b
1 GB of 100 GB
No instances selected
MONITORING
LABELS
No instances selected.
Uploads andSQL-DEMOoperations
Created sqldemo
00:06:09 GM


Workspaces Applications
May 5 12:17 AM
Instances - SQL - SQL
console.cloud.google.com/sql/instances?project=sql-demo-349218&cloudshell=true
Mail Personal Zaamo Cloud YouTube
Google Cloud Platform SQL-DEMO
Search Products, resources, docs (/)
SQL Instances
+ CREATE INSTANCE
MIGRATE DATA
HIDE INFO
Filter Enter property name or value
Instance ID Type Public IP address Private IP address Instance connection name High availability Location Storage used Labels Actions
sqldemo MySQL 8.0 35.226.114.137 sql-demo-349218:us-cen... ENABLED us-central1-b 1 GB of 100 GB
No instances selected
MONITORING LABELS
No instances selected.
Cloud Shell
Manage your infrastructure and develop your applications from any browser with Cloud Shell.
Cloud Shell comes with Cloud SDK gcloud, Cloud Code, an online Code Editor and other utilities pre-installed, fully authenticated and up to date. Learn more
Cloud Shell is free for all users.
CONTINUE
Uploads andSQL-DEMOoperations
Created sqldemo
00:06:09 G
Google Cloud Platform SQL-DEMO
Search Products, resources, docs (/)
SQL Instances
+ CREATE INSTANCE
MIGRATE DATA
HIDE INFO F
Filter Enter property name or value
Instance ID Type Public IP address Private IP address Instance connection name High availability Location Storage used Labels Actions
sqldemo MySQL 8.0 35.226.114.137 sql-demo-349218:us-cen... ENABLED us-central1-b 1 GB of 100 GB
No instances selected
MONITORING LABELS
No instances selected.
CLOUD SHELL
Terminal
(sql-demo-349218)
Open editor
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to sql-demo-349218.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
vrishabhsk@cloudshell:~ (sql-demo-349218)$
Uploads andSQL-DEMOoperations
Created sqldemo
00:06:09 Gh


Google Cloud Platform
SQL-DEMO
Search Products, resources, docs (/)
SQL
Instances
+ CREATE INSTANCE
MIGRATE DATA
HIDE INFO PA
Filter Enter property name or value
Instance ID
Type
Public IP address
Private IP address
Instance connection name
High availability
Location
Storage used
Labels
Actions
sqldemo
MySQL 8.0
35.226.114.137
sql-demo-349218:us-cen...
ENABLED
us-central1-b
1 GB of 100 GB
No instances selected
MONITORING
LABELS
No instances selected.
CLOUD SHELL
Terminal
(sql-demo-349218)
Open editor
vrishabhsk@cloudshell:~ (sql-demo-349218)$ gcloud sql connect sqldemo --user=root --quiet
Allowlisting your IP for incoming connection for 5 minutes...done.
Connecting to database with SQL user [root].Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 176
Server version: 8.0.26-google (Google)
Copyright (c) 2000, 2022, Oracle and/or its affiliates.
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql>
Uploads andSQL-DEMOoperations
Created sqldemo
00:06:09 GM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SQL-DEMO
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SQL
Connections
PRIMARY INSTANCE
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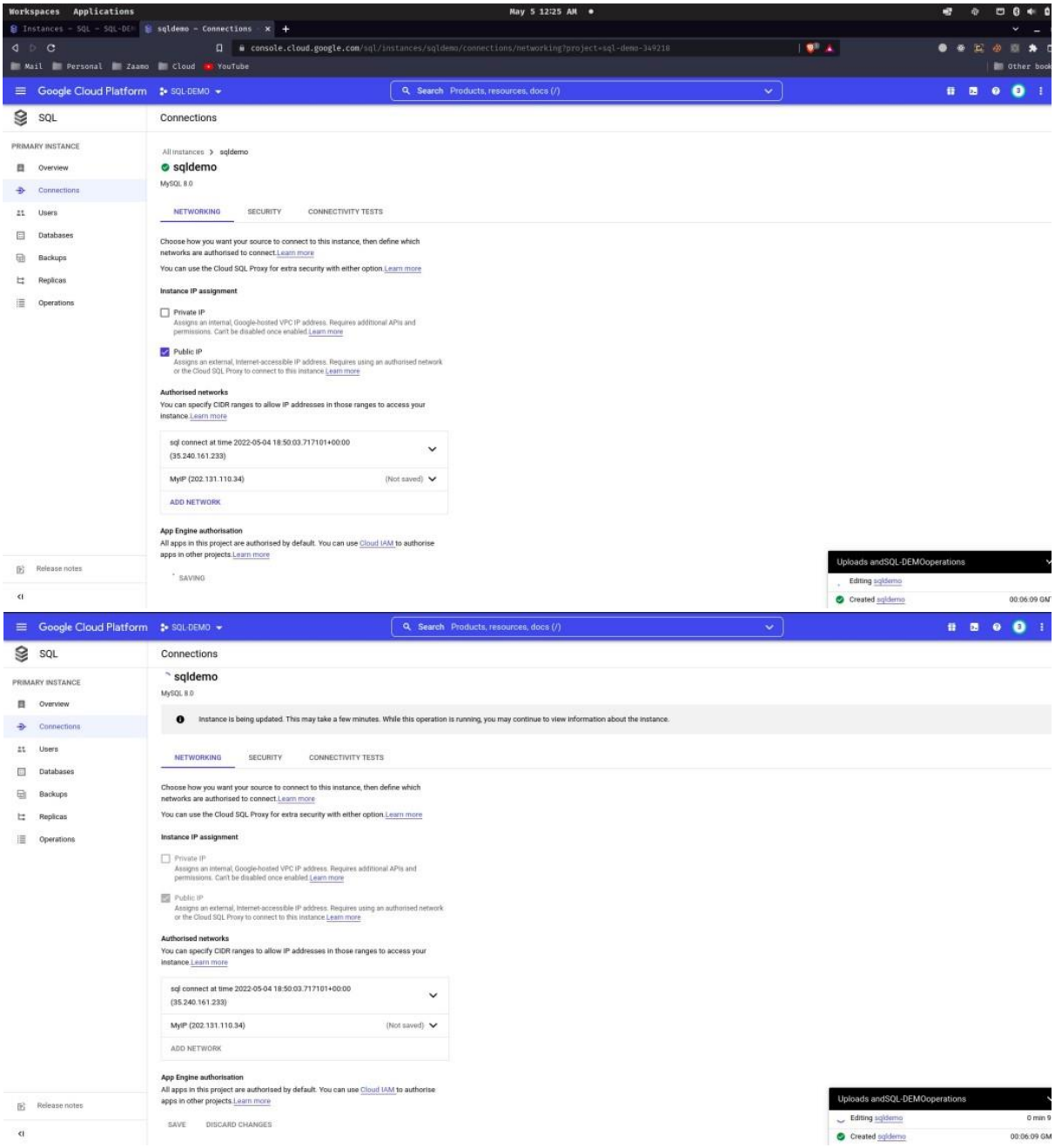
Connections
Users
Databases
Backups
Replicas
Operations
Release notes
All instances > sqldemo
sqldemo
MySQL 8.0
NETWORKING
SECURITY
CONNECTIVITY TESTS
Choose how you want your source to connect to this instance, then define which networks are authorised to connect.Learn more
You can use the Cloud SQL Proxy for extra security with either option.Learn more
Instance IP assignment
Private IP
Assigns an internal, Google-hosted VPC IP address. Requires additional APIs and permissions. Can't be disabled once enabled.Learn more
Public IP
Assigns an external, Internet-accessible IP address. Requires using an authorised network or the Cloud SQL Proxy to connect to this instance.Learn more
Authorised networks
You can specify CIDR ranges to allow IP addresses in those ranges to access your instance.Learn more
sql connect at time 2022-05-04 18:50:03.717101+00:00 (35.240.161.233)
MyIP (202.131.110.34)
(Not saved)
ADD NETWORK
App Engine authorisation
All apps in this project are authorised by default. You can use Cloud IAM to authorise apps in other projects.Learn more
SAVE
DISCARD CHANGES


Workspaces Applications
May 5 12:25 AM
sqldemo - Connections
console.cloud.google.com/sql/instances/sqldemo/connections/networking?project=sql-demo-349210
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SQL-DEMO
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SQL
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sqldemo
MySQL 8.0
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(Not saved)
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SAVING
Release notes
Uploads andSQL-DEMOoperations
Editing sqldemo
Created sqldemo
00:06:09 GM
Google Cloud Platform
SQL-DEMO
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SQL
Connections
sqldemo
MySQL 8.0
Instance is being updated. This may take a few minutes. While this operation is running, you may continue to view information about the instance.
NETWORKING
SECURITY
CONNECTIVITY TESTS
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Public IP
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Authorised networks
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sql connect at time 2022-05-04 18:50:03.717101+00:00 (35.240.161.233)
MyIP (202.131.110.34)
(Not saved)
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SAVE
DISCARD CHANGES
Release notes
Uploads andSQL-DEMOoperations
Editing sqldemo
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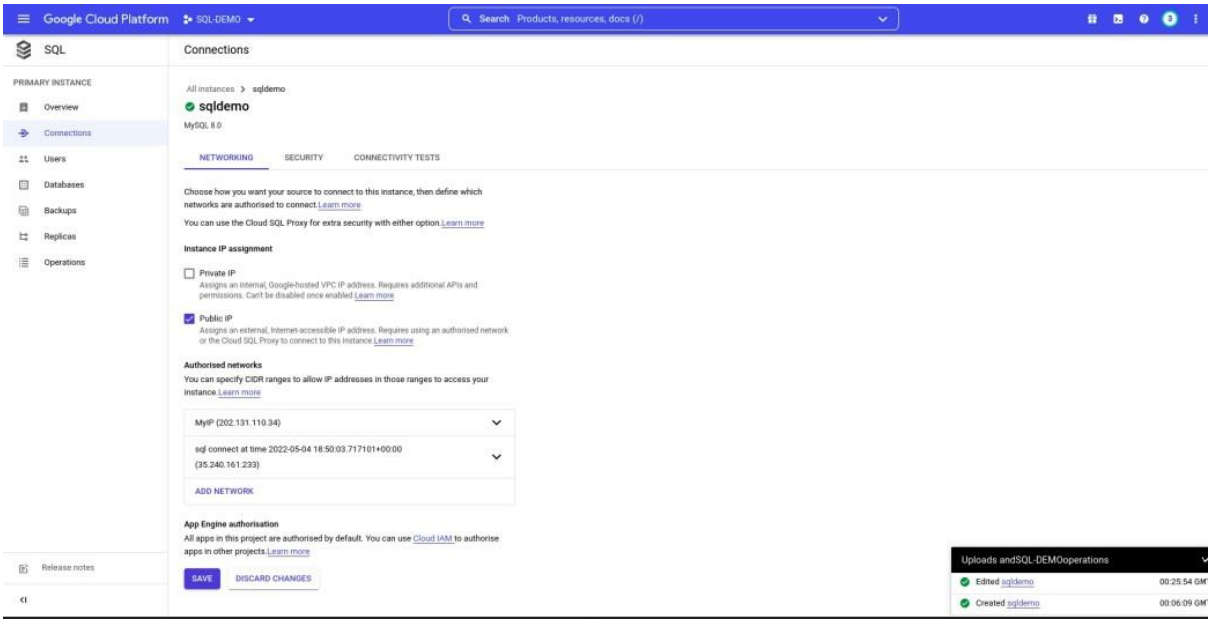
Created sqldemo
00:06:09 GM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sqldemo
MySQL 8.0
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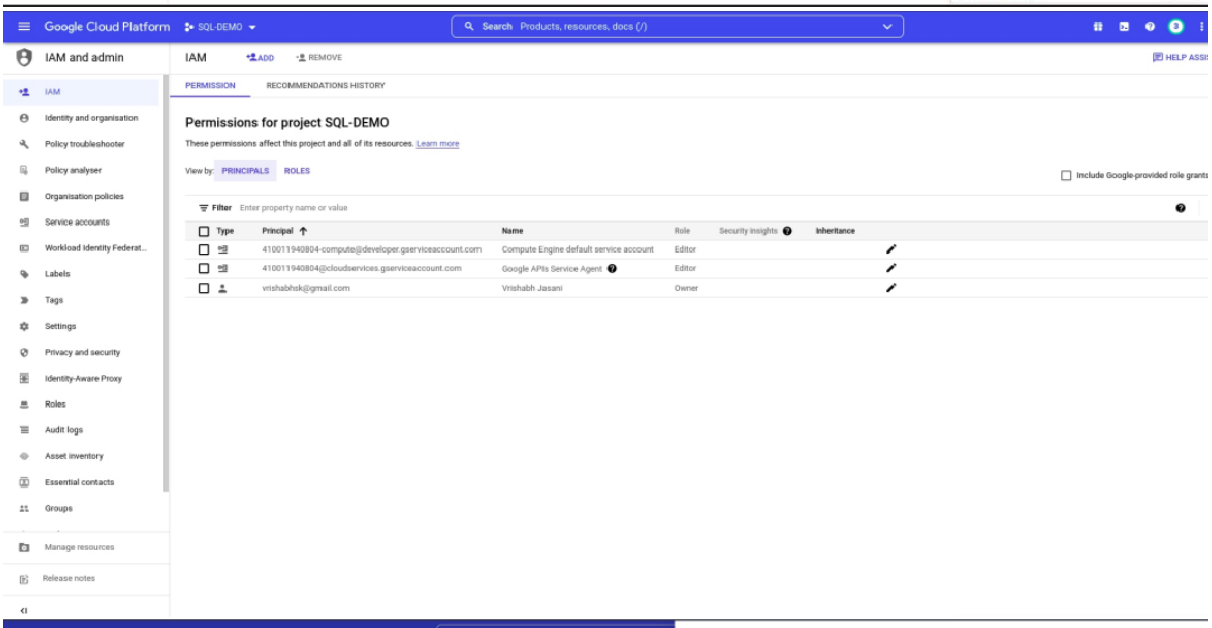
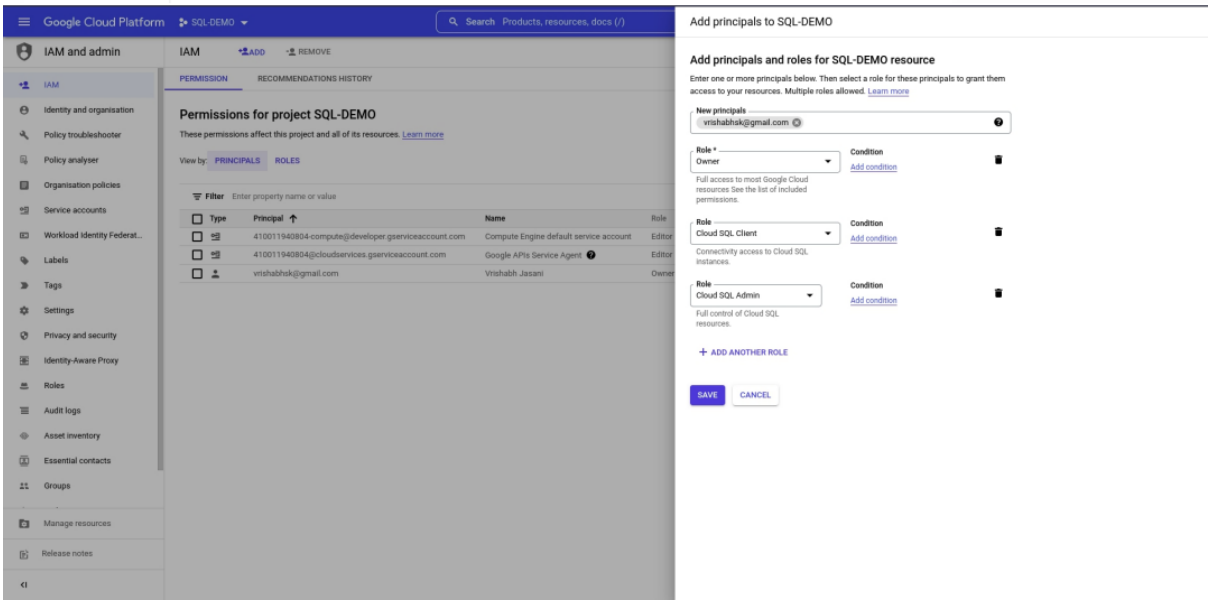
Assigns an external, Internet-accessible IP address. Requires using an authorised network or the Cloud SQL Proxy to connect to this instance. Learn more
Authorised networks
You can specify CIDR ranges to allow IP addresses in those ranges to access your instance. Learn more
MyIP (202.131.110.34)
sql connect at time 2022-05-04 18:50:03.717101+00:00 (35.240.161.233)
ADD NETWORK
App Engine authorisation
All apps in this project are authorised by default. You can use Cloud IAM to authorise apps in other projects. Learn more
SAVE
DISCARD CHANGES
Release notes
Uploads and SQL-DEMO operations
Edited sqldemo
Created sqldemo


Google Cloud Platform
SQL-DEMO
Search Products, resources, docs (/)
IAM and admin
IAM
ADD
REMOVE
HELP ASSI
PERMISSION
RECOMMENDATIONS HISTORY
Permissions for project SQL-DEMO
These permissions affect this project and all of its resources. Learn more
View by: PRINCIPALS ROLES
Include Google-provided role grants
Filter Enter property name or value
Type
Principal
Name
Role
Security insights
Inheritance
410011940804-compute@developer.gserviceaccount.com
Compute Engine default service account
Editor
410011940804@cloudservices.gserviceaccount.com
Google APIs Service Agent
Editor
vrishabhsk@gmail.com
Vrishabh Jasani
Owner
Identity and organisation
Policy troubleshooter
Policy analyser
Organisation policies
Service accounts
Workload Identity Federat...
Labels
Tags
Settings
Privacy and security
Identity-Aware Proxy
Roles
Audit logs
Asset inventory
Essential contacts
Groups
Manage resources
Release notes


Google Cloud Platform
SQL-DEMO
Search Products, resources, docs (/)
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IAM
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PERMISSION
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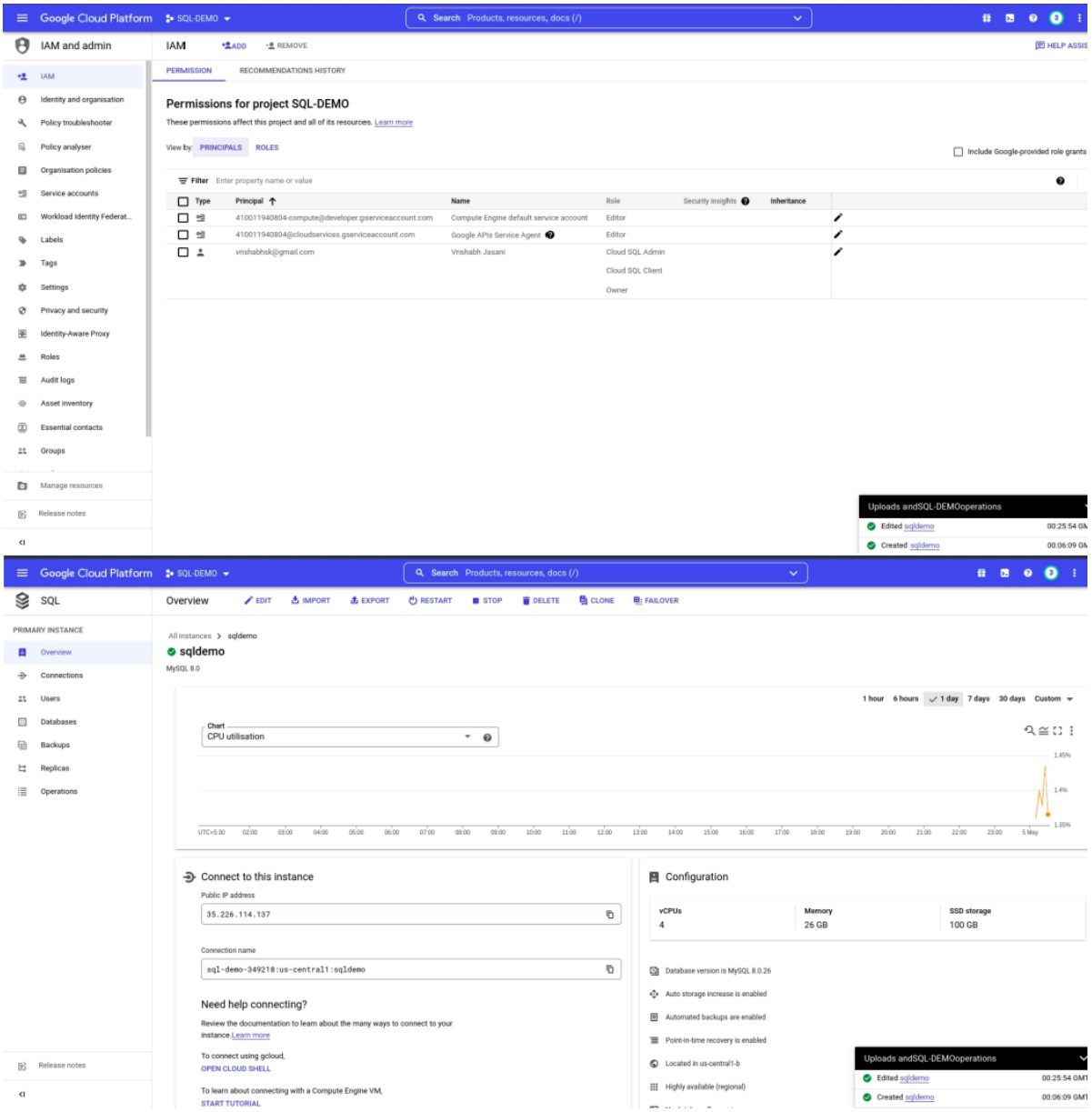
View by: PRINCIPALS ROLES
Filter Enter property name or value
Type
Principal
Name
Role
410011940804-compute@developer.gserviceaccount.com
Compute Engine default service account
Editor
410011940804@cloudservices.gserviceaccount.com
Google APIs Service Agent
Editor
vrishabhsk@gmail.com
Vrishabh Jasani
Owner
Add principals to SQL-DEMO
Add principals and roles for SQL-DEMO resource
Enter one or more principals below. Then select a role for these principals to grant them access to your resources. Multiple roles allowed. Learn more
New principals
vrishabhsk@gmail.com
Role *
Owner
Full access to most Google Cloud resources See the list of included permissions.
Condition
Add condition
Role
Cloud SQL Client
Connectivity access to Cloud SQL instances.
Condition
Add condition
Role
Cloud SQL Admin
Full control of Cloud SQL resources.
Condition
Add condition
+ ADD ANOTHER ROLE
SAVE
CANCEL


Google Cloud Platform
SQL-DEMO
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IAM
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Permissions for project SQL-DEMO
These permissions affect this project and all of its resources. Learn more
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Inheritance
410011940804-compute@developer.gserviceaccount.com
Compute Engine default service account
Editor
410011940804@cloudservices.gserviceaccount.com
Google APIs Service Agent
Editor
vrishabhsk@gmail.com
Vrishabh Jasani
Cloud SQL Admin
Cloud SQL Client
Owner
IAM
Identity and organisation
Policy troubleshooter
Policy analyser
Organisation policies
Service accounts
Workload Identity Federat...
Labels
Tags
Settings
Privacy and security
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IMPORT
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RESTART
STOP
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CLONE
FAILOVER
PRIMARY INSTANCE
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Replicas
Operations
All instances > sqldemo
sqldemo
MySQL 8.0
1 hour 6 hours 1 day 7 days 30 days Custom
Chart
CPU utilisation
Connect to this instance
Public IP address
35.226.114.137
Connection name
sql-demo-349218:us-central1:sqldemo
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
To learn about connecting with a Compute Engine VM,
START TUTORIAL
Configuration
vCPUs
4
Memory
26 GB
SSD storage
100 GB
Database version is MySQL 8.0.26
Auto storage increase is enabled
Automated backups are enabled
Point-in-time recovery is enabled
Located in us-central1-b
Highly available (regional)
Release notes
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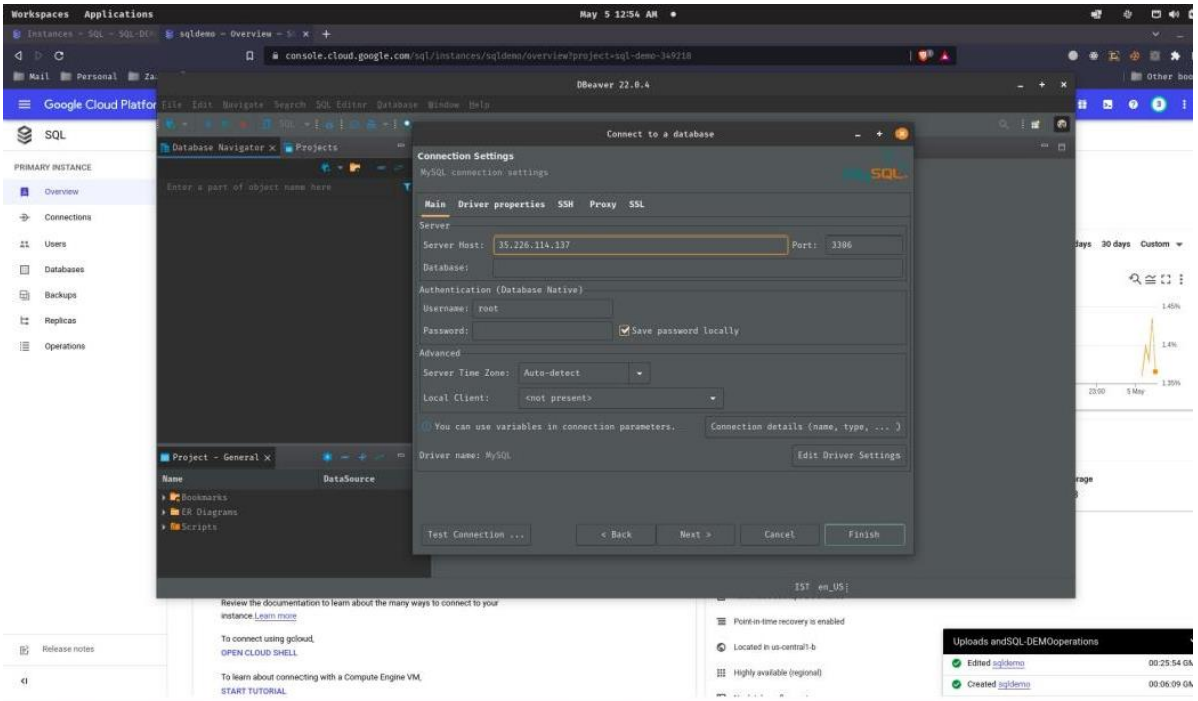
Workspaces Applications
May 5 12:54 AM
DBeaver 22.0.4
Connect to a database
Connection Settings
MySQL connection settings
Main Driver properties SSH Proxy SSL
Server Host: 35.226.114.137
Port: 3306
Database:
Username: root
Password:
Save password locally
Server Time Zone: Auto-detect
Local Client: <not present>
Connection details (name, type, ...)
Edit Driver Settings
Test Connection ...
< Back
Next >
Cancel
Finish
Google Cloud Platfor
SQL
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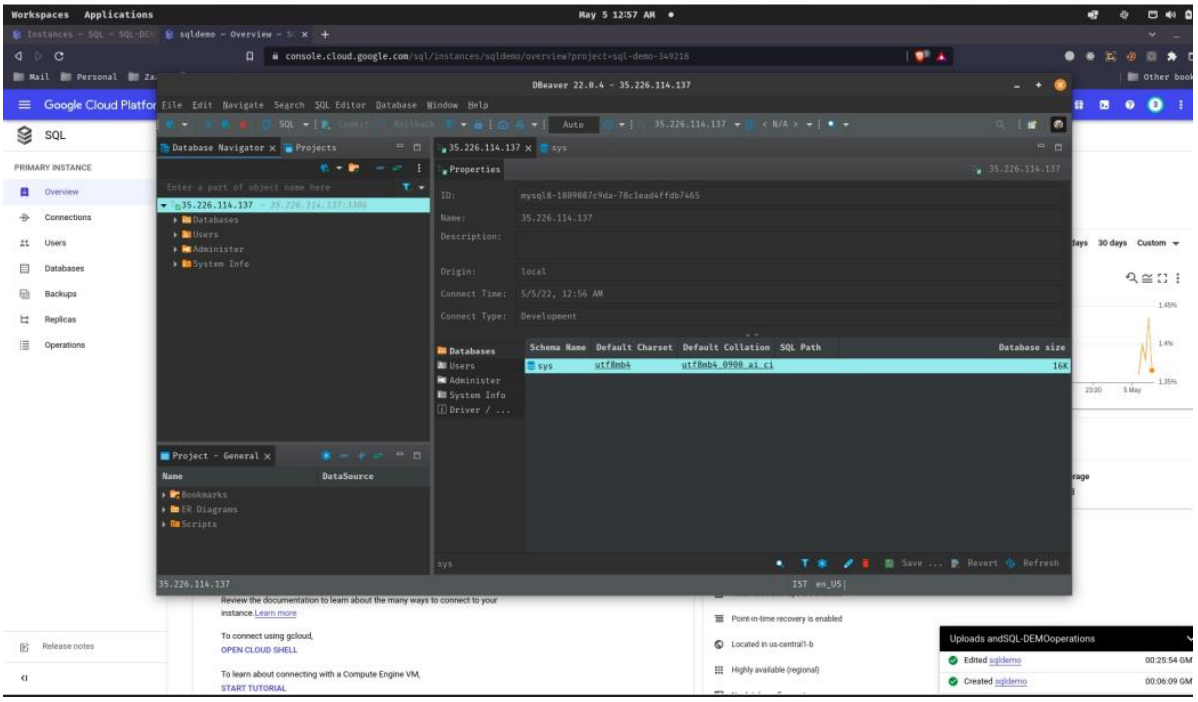
Workspaces Applications
May 5 12:57 AM
DBeaver 22.0.4 - 35.226.114.137
Properties
ID: mysql8-1809087c9da-78c1ead4ffdb7465
Name: 35.226.114.137
Description:
Origin: local
Connect Time: 5/5/22, 12:56 AM
Connect Type: Development
Schema Name Default Charset Default Collation SQL Path Database size
sys utf8mb4 utf8mb4_0900_ai_ci 16K
Google Cloud Platfor
SQL
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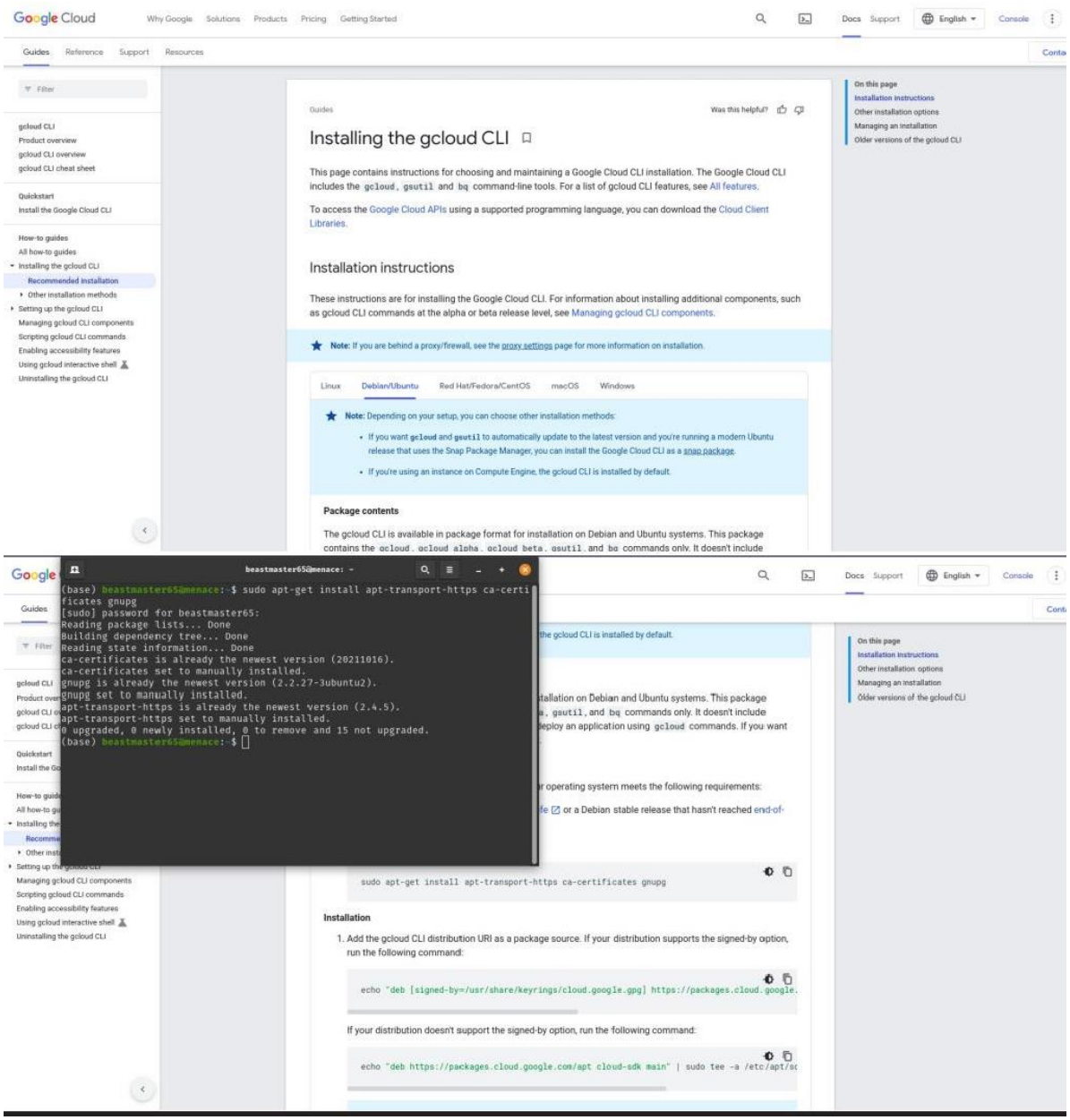
Google Cloud
Why Google
Solutions
Products
Pricing
Getting Started
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Support
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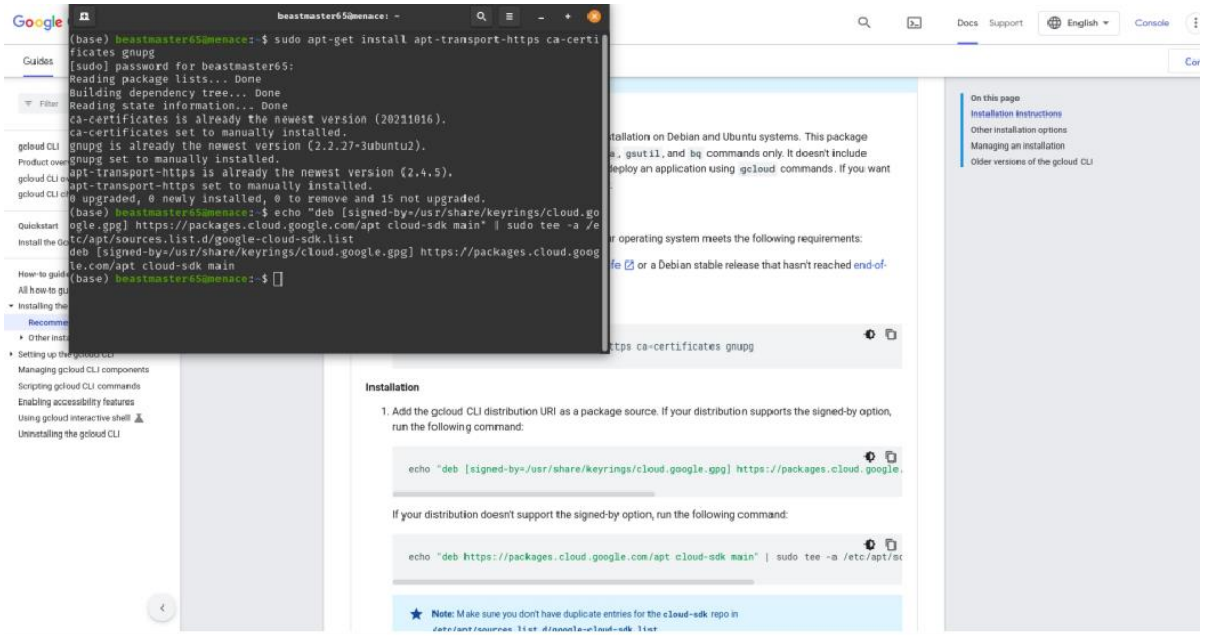
Guides
Reference
Support
Resources
Installing the gcloud CLI
This page contains instructions for choosing and maintaining a Google Cloud CLI installation. The Google Cloud CLI includes the gcloud, gsutil and bq command-line tools. For a list of gcloud CLI features, see All features.
To access the Google Cloud APIs using a supported programming language, you can download the Cloud Client Libraries.
Installation instructions
These instructions are for installing the Google Cloud CLI. For information about installing additional components, such as gcloud CLI commands at the alpha or beta release level, see Managing gcloud CLI components.
Note: If you are behind a proxy/firewall, see the proxy settings page for more information on installation.
Linux
Debian/Ubuntu
Red Hat/Fedora/CentOS
macOS
Windows
Note: Depending on your setup, you can choose other installation methods:
If you want gcloud and gsutil to automatically update to the latest version and you're running a modern Ubuntu release that uses the Snap Package Manager, you can install the Google Cloud CLI as a snap package.
If you're using an instance on Compute Engine, the gcloud CLI is installed by default.
Package contents
The gcloud CLI is available in package format for installation on Debian and Ubuntu systems. This package contains the gcloud, gcloud alpha, gcloud beta, gsutil, and bq commands only. It doesn't include
On this page
Installation instructions
Other installation options
Managing an installation
Older versions of the gcloud CLI
beastmaster65@menace: ~
(base) beastmaster65@menace:~$ sudo apt-get install apt-transport-https ca-certificates gnupg
[sudo] password for beastmaster65:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
ca-certificates is already the newest version (20211016).
ca-certificates set to manually installed.
gnupg is already the newest version (2.2.27-3ubuntu2).
gnupg set to manually installed.
apt-transport-https is already the newest version (2.4.5).
apt-transport-https set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 15 not upgraded.
(base) beastmaster65@menace:~$
sudo apt-get install apt-transport-https ca-certificates gnupg
Installation
1. Add the gcloud CLI distribution URI as a package source. If your distribution supports the signed-by option, run the following command:
echo "deb [signed-by=/usr/share/keyrings/cloud.google.gpg] https://packages.cloud.google.
If your distribution doesn't support the signed-by option, run the following command:
echo "deb https://packages.cloud.google.com/apt cloud-sdk main" | sudo tee -a /etc/apt/sc


beastmaster65@menace: ~
(base) beastmaster65@menace:~$ sudo apt-get install apt-transport-https ca-certificates gnupg
[sudo] password for beastmaster65:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
ca-certificates is already the newest version (20211016).
ca-certificates set to manually installed.
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gnupg set to manually installed.
apt-transport-https is already the newest version (2.4.5).
apt-transport-https set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 15 not upgraded.
(base) beastmaster65@menace:~$ echo "deb [signed-by=/usr/share/keyrings/cloud.google.gpg] https://packages.cloud.google.com/apt cloud-sdk main" | sudo tee -a /etc/apt/sources.list.d/google-cloud-sdk.list
deb [signed-by=/usr/share/keyrings/cloud.google.gpg] https://packages.cloud.google.com/apt cloud-sdk main
(base) beastmaster65@menace:~$
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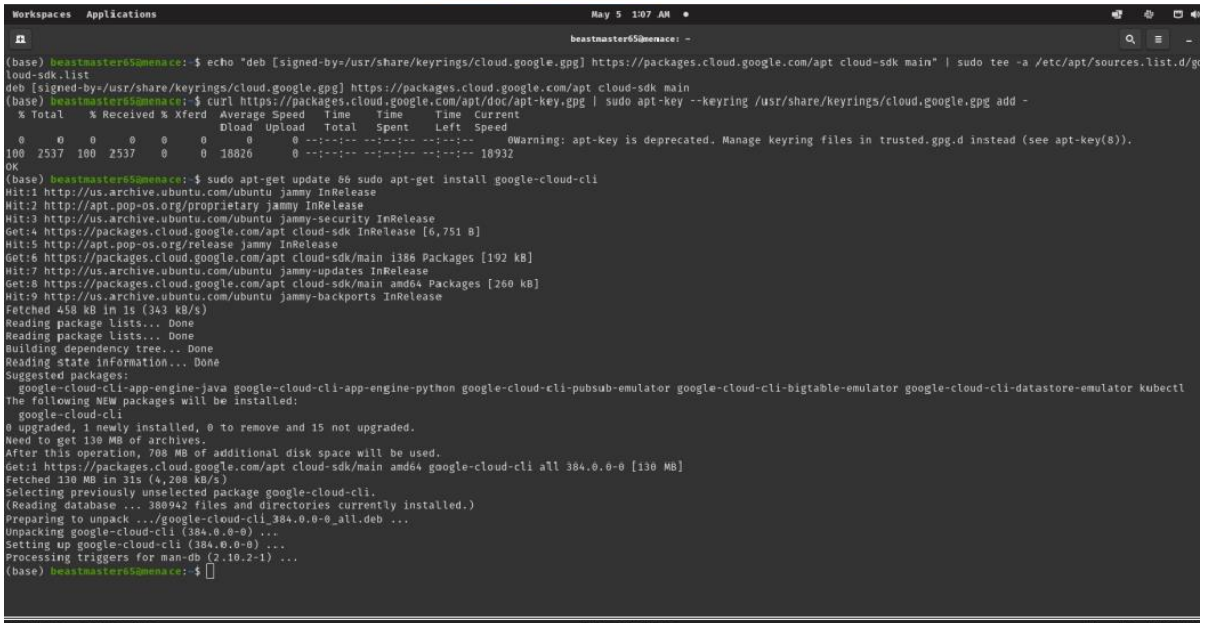
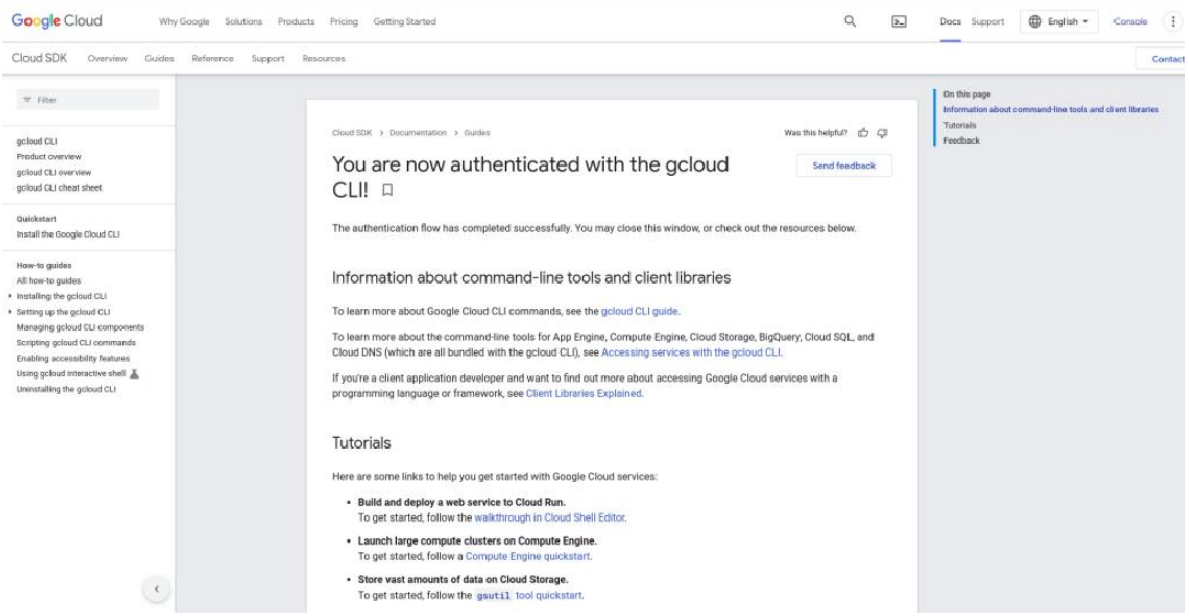
Managing gcloud CLI components
Scripting gcloud CLI commands
Enabling accessibility features
Using gcloud interactive shell
Uninstalling the gcloud CLI
Installation
1. Add the gcloud CLI distribution URI as a package source. If your distribution supports the signed-by option, run the following command:
If your distribution doesn't support the signed-by option, run the following command:
Note: Make sure you don't have duplicate entries for the cloud-sdk repo in


Workspaces
Applications
May 5 1:07 AM
beastmaster65@menace: ~
(base) beastmaster65@menace:~$ echo "deb [signed-by=/usr/share/keyrings/cloud.google.gpg] https://packages.cloud.google.com/apt cloud-sdk main" | sudo tee -a /etc/apt/sources.list.d/google-cloud-sdk.list
deb [signed-by=/usr/share/keyrings/cloud.google.gpg] https://packages.cloud.google.com/apt cloud-sdk main
(base) beastmaster65@menace:~$ curl https://packages.cloud.google.com/apt/doc/apt-key.gpg | sudo apt-key --keyring /usr/share/keyrings/cloud.google.gpg add -
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
0 0 0 0 0 0 0 0 --:--:-- --:--:-- --:--:-- 0Warning: apt-key is deprecated. Manage keyring files in trusted.gpg.d instead (see apt-key(8)).
100 2537 100 2537 0 0 18026 0 --:--:-- --:--:-- --:--:-- 18932
OK
(base) beastmaster65@menace:~$ sudo apt-get update && sudo apt-get install google-cloud-cli
Hit:1 http://us.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://apt.pop-os.org/proprietary jammy InRelease
Hit:3 http://us.archive.ubuntu.com/ubuntu jammy-security InRelease
Get:4 https://packages.cloud.google.com/apt cloud-sdk InRelease [6,751 B]
Hit:5 http://apt.pop-os.org/release jammy InRelease
Get:6 https://packages.cloud.google.com/apt cloud-sdk/main i386 Packages [192 kB]
Hit:7 http://us.archive.ubuntu.com/ubuntu jammy-updates InRelease
Get:8 https://packages.cloud.google.com/apt cloud-sdk/main amd64 Packages [260 kB]
Hit:9 http://us.archive.ubuntu.com/ubuntu jammy-backports InRelease
Fetched 458 kB in 1s (343 kB/s)
Reading package lists... Done
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Suggested packages:
google-cloud-cli-app-engine-java google-cloud-cli-app-engine-python google-cloud-cli-pubsub-emulator google-cloud-cli-bigtable-emulator google-cloud-cli-datastore-emulator kubectl
The following NEW packages will be installed:
google-cloud-cli
0 upgraded, 1 newly installed, 0 to remove and 15 not upgraded.
Need to get 130 MB of archives.
After this operation, 708 MB of additional disk space will be used.
Get:1 https://packages.cloud.google.com/apt cloud-sdk/main amd64 google-cloud-cli all 384.0.0-0 [130 MB]
Fetched 130 MB in 31s (4,208 kB/s)
Selecting previously unselected package google-cloud-cli.
(Reading database ... 380942 files and directories currently installed.)
Preparing to unpack .../google-cloud-cli_384.0.0-0_all.deb ...
Unpacking google-cloud-cli (384.0.0-0) ...
Setting up google-cloud-cli (384.0.0-0) ...
Processing triggers for man-db (2.10.2-1) ...
(base) beastmaster65@menace:~$

Workspaces
Applications
May 5 1:08 AM
beastmaster65@menace: ~
(base) beastmaster65@menace:~$ gcloud init
Welcome! This command will take you through the configuration of gcloud.
Your current configuration has been set to: [default]
You can skip diagnostics next time by using the following flag:
gcloud init --skip-diagnostics
Network diagnostic detects and fixes local network connection issues.
Checking network connection...done.
Reachability Check passed.
Network diagnostic passed (1/1 checks passed).
You must log in to continue. Would you like to log in (Y/n)?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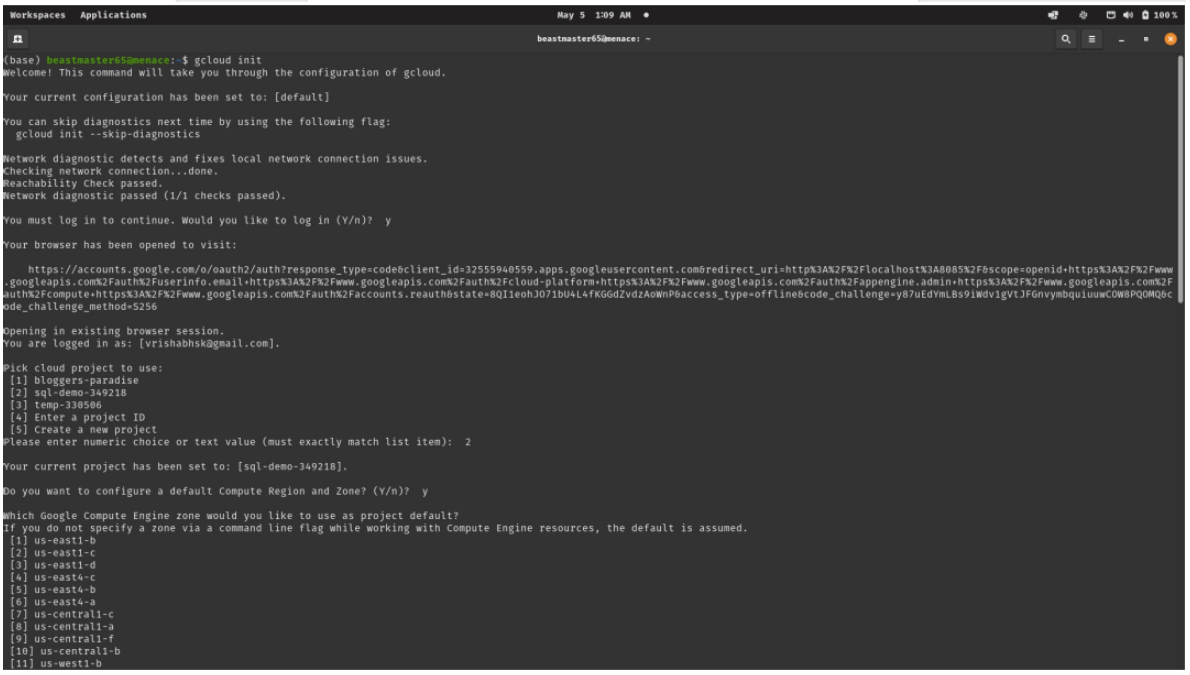
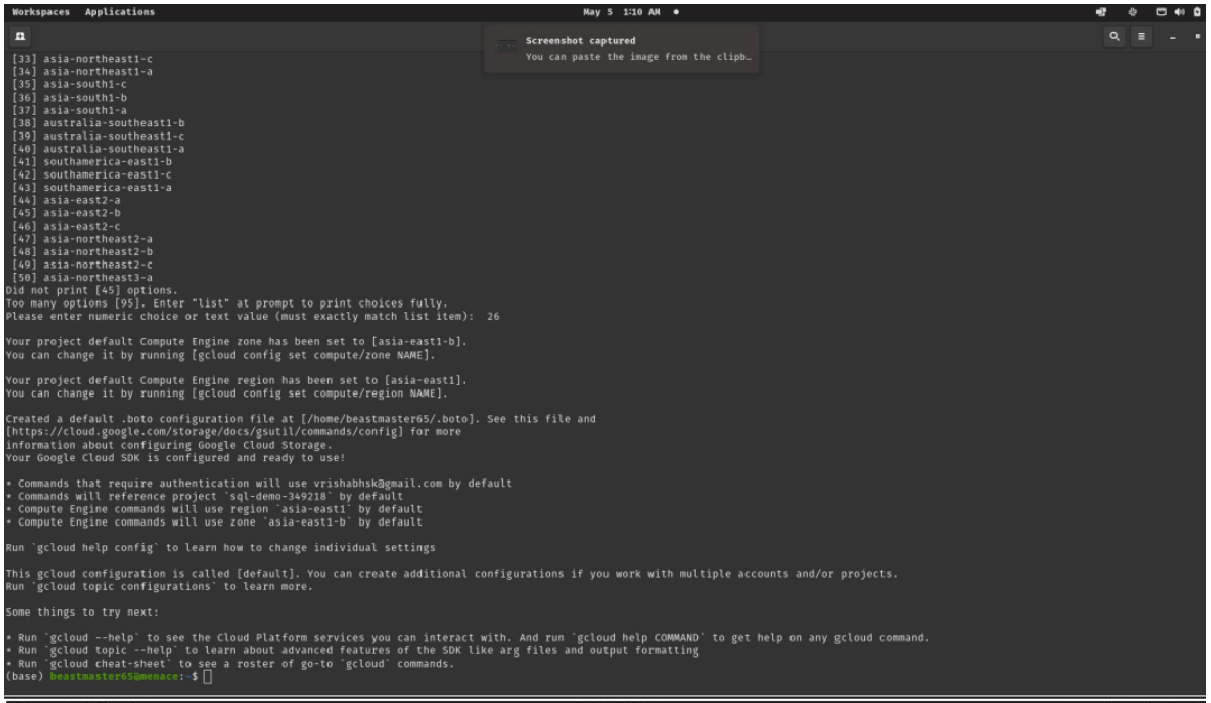
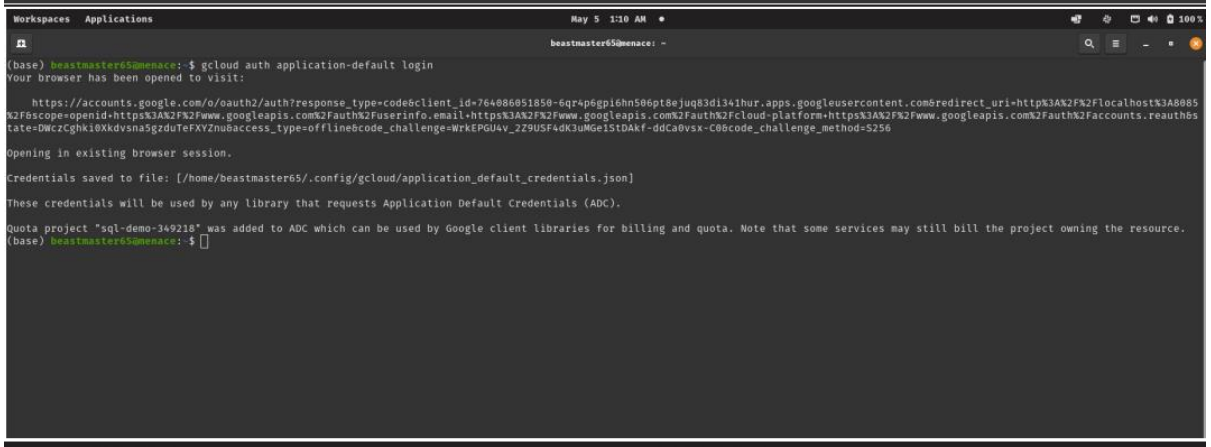
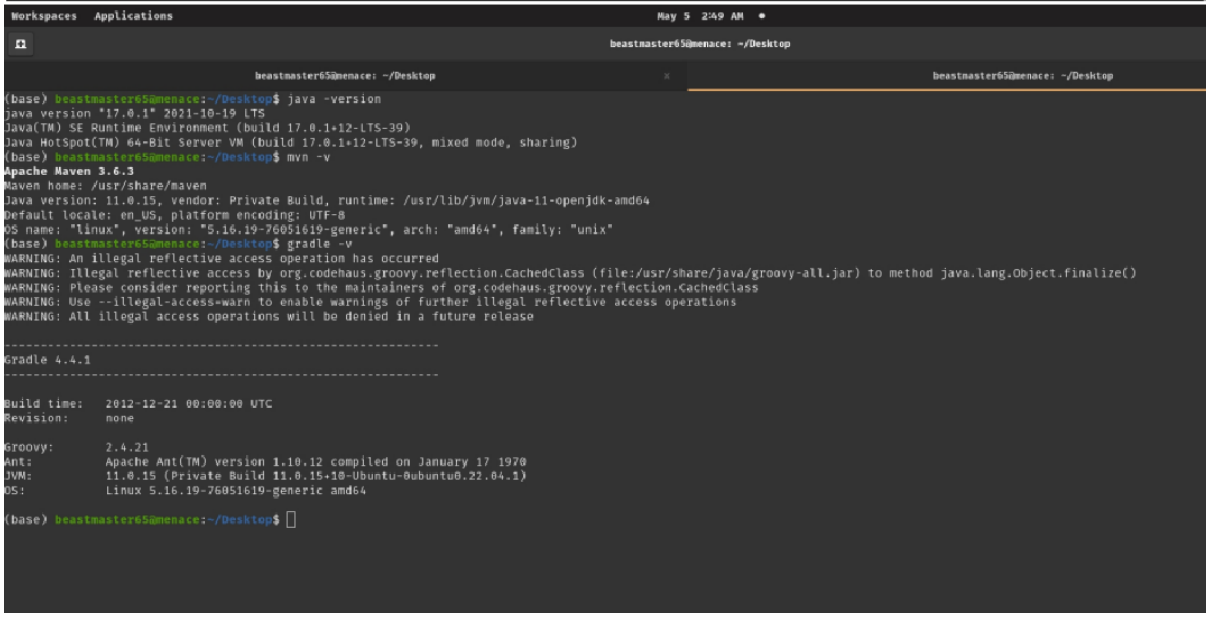
All how-to guides
Installing the gcloud CLI
Setting up the gcloud CLI
Managing gcloud CLI components
Scripting gcloud CLI commands
Enabling accessibility features
Using gcloud interactive shell
Uninstalling the gcloud CLI
Cloud SDK > Documentation > Guides
Was this helpful?
You are now authenticated with the gcloud CLI!
Send feedback
The authentication flow has completed successfully. You may close this window, or check out the resources below.
Information about command-line tools and client libraries
To learn more about Google Cloud CLI commands, see the gcloud CLI guide.
To learn more about the command-line tools for App Engine, Compute Engine, Cloud Storage, BigQuery, Cloud SQL, and Cloud DNS (which are all bundled with the gcloud CLI), see Accessing services with the gcloud CLI.
If you're a client application developer and want to find out more about accessing Google Cloud services with a programming language or framework, see Client Libraries Explained.
Tutorials
Here are some links to help you get started with Google Cloud services:
Build and deploy a web service to Cloud Run.
To get started, follow the walkthrough in Cloud Shell Editor.
Launch large compute clusters on Compute Engine.
To get started, follow a Compute Engine quickstart.
Store vast amounts of data on Cloud Storage.
To get started, follow the gsutil tool quickstart.
On this page
Information about command-line tools and client libraries
Tutorials
Feedback

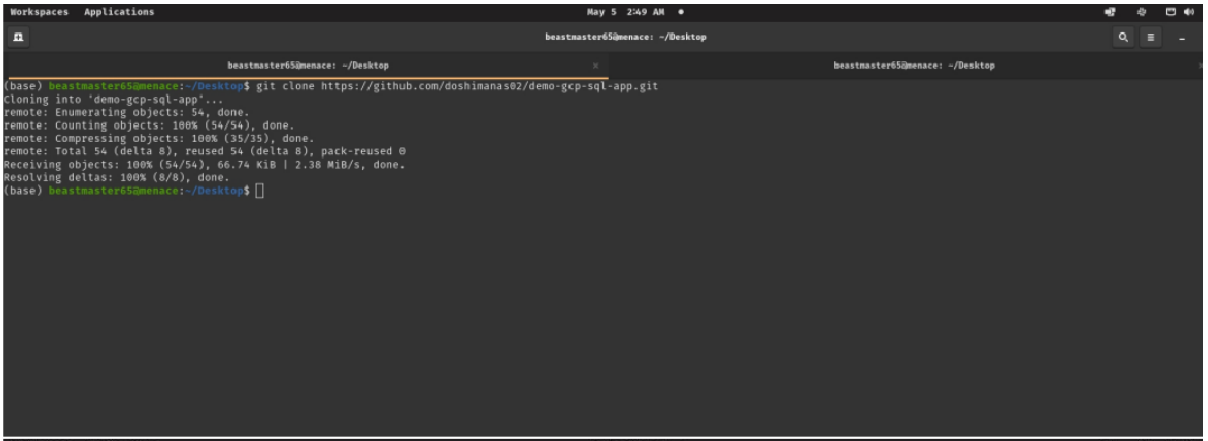

Workspaces
Applications
May 5 1:09 AM
100%
beastmaster65@menace: ~
(base) beastmaster65@menace:~$ gcloud init
Welcome! This command will take you through the configuration of gcloud.
Your current configuration has been set to: [default]
You can skip diagnostics next time by using the following flag:
gcloud init --skip-diagnostics
Network diagnostic detects and fixes local network connection issues.
Checking network connection...done.
Reachability Check passed.
Network diagnostic passed (1/1 checks passed).
You must log in to continue. Would you like to log in (Y/n)? y
Your browser has been opened to visit:
https://accounts.google.com/o/oauth2/auth?response_type=code&client_id=32555940559.apps.googleusercontent.com&redirect_uri=http%3A%2F%2Flocalhost%3A8085%2F&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%2Fcompute+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Faccounts.reauth&state=8QI1eohJO71bU4L4fKGGdZvdzAoWnP&access_type=offline&code_challenge=y87uEdYmLBs9iWdv1gVtJFGnvymbquiuuwCOW8PQOMQ&code_challenge_method=S256
Opening in existing browser session.
You are logged in as: [vrishabhsk@gmail.com].
Pick cloud project to use:
[1] bloggers-paradise
[2] sql-demo-349218
[3] temp-330506
[4] Enter a project ID
[5] Create a new project
Please enter numeric choice or text value (must exactly match list item): 2
Your current project has been set to: [sql-demo-349218].
Do you want to configure a default Compute Region and Zone? (Y/n)? y
Which Google Compute Engine zone would you like to use as project default?
If you do not specify a zone via a command line flag while working with Compute Engine resources, the default is assumed.
[1] us-east1-b
[2] us-east1-c
[3] us-east1-d
[4] us-east4-c
[5] us-east4-b
[6] us-east4-a
[7] us-central1-c
[8] us-central1-a
[9] us-central1-f
[10] us-central1-b
[11] us-west1-b

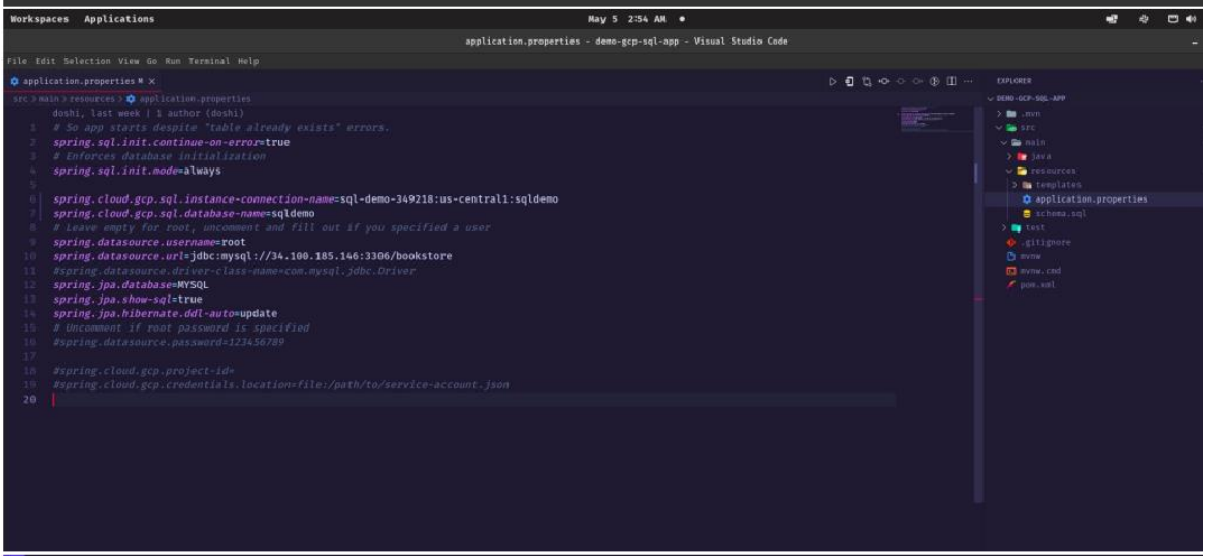

Workspaces Applications
May 5 1:10 AM
Screenshot captured
You can paste the image from the clipb…
[33] asia-northeast1-c
[34] asia-northeast1-a
[35] asia-south1-c
[36] asia-south1-b
[37] asia-south1-a
[38] australia-southeast1-b
[39] australia-southeast1-c
[40] australia-southeast1-a
[41] southamerica-east1-b
[42] southamerica-east1-c
[43] southamerica-east1-a
[44] asia-east2-a
[45] asia-east2-b
[46] asia-east2-c
[47] asia-northeast2-a
[48] asia-northeast2-b
[49] asia-northeast2-c
[50] asia-northeast3-a
Did not print [45] options.
Too many options [95]. Enter "list" at prompt to print choices fully.
Please enter numeric choice or text value (must exactly match list item): 26
Your project default Compute Engine zone has been set to [asia-east1-b].
You can change it by running [gcloud config set compute/zone NAME].
Your project default Compute Engine region has been set to [asia-east1].
You can change it by running [gcloud config set compute/region NAME].
Created a default .boto configuration file at [/home/beastmaster65/.boto]. See this file and
[https://cloud.google.com/storage/docs/gsutil/commands/config] for more
information about configuring Google Cloud Storage.
Your Google Cloud SDK is configured and ready to use!
* Commands that require authentication will use vrishabhsk@gmail.com by default
* Commands will reference project `sql-demo-349218` by default
* Compute Engine commands will use region `asia-east1` by default
* Compute Engine commands will use zone `asia-east1-b` by default
Run `gcloud help config` to learn how to change individual settings
This gcloud configuration is called [default]. You can create additional configurations if you work with multiple accounts and/or projects.
Run `gcloud topic configurations` to learn more.
Some things to try next:
* Run `gcloud --help` to see the Cloud Platform services you can interact with. And run `gcloud help COMMAND` to get help on any gcloud command.
* Run `gcloud topic --help` to learn about advanced features of the SDK like arg files and output formatting
* Run `gcloud cheat-sheet` to see a roster of go-to `gcloud` commands.
(base) beastmaster65@menace:~$

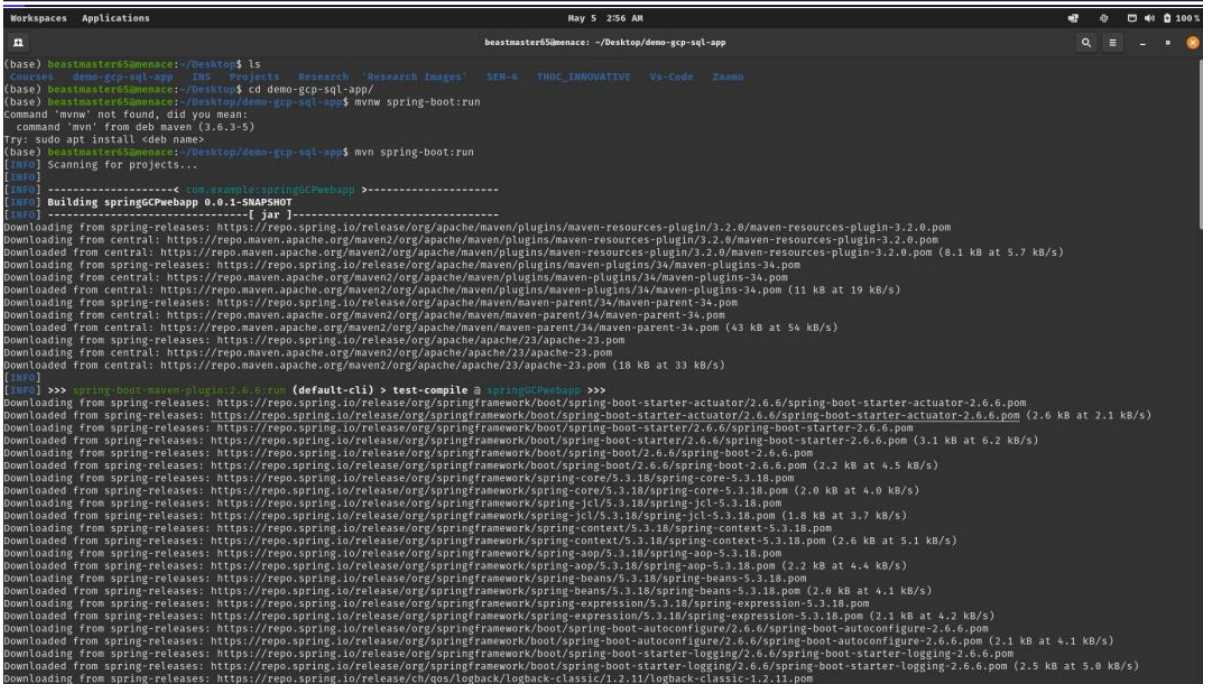

Workspaces Applications
May 5 1:10 AM
100%
beastmaster65@menace: ~
(base) beastmaster65@menace:~$ gcloud auth application-default login
Your browser has been opened to visit:
https://accounts.google.com/o/oauth2/auth?response_type=code&client_id=764086051850-6qr4p6gpi6hn506pt8ejuq83di341hur.apps.googleusercontent.com&redirect_uri=http%3A%2F%2Flocalhost%3A8085%2F&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%2Faccounts.reauth&state=DWczCghki0XkdvsnaSgzduTeFXYZnu&access_type=offline&code_challenge=WrkEPGU4v_2Z9USF4dK3uMGe1StDAkf-ddCa0vsx-C0&code_challenge_method=S256
Opening in existing browser session.
Credentials saved to file: [/home/beastmaster65/.config/gcloud/application_default_credentials.json]
These credentials will be used by any library that requests Application Default Credentials (ADC).
Quota project "sql-demo-349218" was added to ADC which can be used by Google client libraries for billing and quota. Note that some services may still bill the project owning the resource.
(base) beastmaster65@menace:~$


Workspaces Applications
May 5 2:49 AM
beastmaster65@menace: ~/Desktop
beastmaster65@menace: ~/Desktop
beastmaster65@menace: ~/Desktop
(base) beastmaster65@menace:~/Desktop$ java -version
java version "17.0.1" 2021-10-19 LTS
Java(TM) SE Runtime Environment (build 17.0.1+12-LTS-39)
Java HotSpot(TM) 64-Bit Server VM (build 17.0.1+12-LTS-39, mixed mode, sharing)
(base) beastmaster65@menace:~/Desktop$ mvn -v
Apache Maven 3.6.3
Maven home: /usr/share/maven
Java version: 11.0.15, vendor: Private Build, runtime: /usr/lib/jvm/java-11-openjdk-amd64
Default locale: en_US, platform encoding: UTF-8
OS name: "linux", version: "5.16.19-76051619-generic", arch: "amd64", family: "unix"
(base) beastmaster65@menace:~/Desktop$ gradle -v
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by org.codehaus.groovy.reflection.CachedClass (file:/usr/share/java/groovy-all.jar) to method java.lang.Object.finalize()
WARNING: Please consider reporting this to the maintainers of org.codehaus.groovy.reflection.CachedClass
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
----
Gradle 4.4.1

Build time: 2012-12-21 00:00:00 UTC
Revision: none
Groovy: 2.4.21
Ant: Apache Ant(TM) version 1.10.12 compiled on January 17 1970
JVM: 11.0.15 (Private Build 11.0.15+10-Ubuntu-0ubuntu0.22.04.1)
OS: Linux 5.16.19-76051619-generic amd64
(base) beastmaster65@menace:~/Desktop$


Workspaces Applications
May 5 2:49 AM
beastmaster65@menace: ~/Desktop
beastmaster65@menace: ~/Desktop
beastmaster65@menace: ~/Desktop
(base) beastmaster65@menace:~/Desktop$ git clone https://github.com/doshimanas02/demo-gcp-sql-app.git
cloning into 'demo-gcp-sql-app'...
remote: Enumerating objects: 54, done.
remote: Counting objects: 100% (54/54), done.
remote: Compressing objects: 100% (35/35), done.
remote: Total 54 (delta 8), reused 54 (delta 8), pack-reused 0
Receiving objects: 100% (54/54), 66.74 KiB | 2.38 MiB/s, done.
Resolving deltas: 100% (8/8), done.
(base) beastmaster65@menace:~/Desktop$


Workspaces Applications
May 5 2:54 AM
application.properties - demo-gcp-sql-app - Visual Studio Code
File Edit Selection View Go Run Terminal Help
application.properties
src > main > resources > application.properties
doshi, last week | 1 author (doshi)
So app starts despite "table already exists" errors.
spring.sql.init.continue-on-error=true
# Enforces database initialization
spring.sql.init.mode=always
spring.cloud.gcp.sql.instance-connection-name=sql-demo-349218:us-central1:sqldemo
spring.cloud.gcp.sql.database-name=sqldemo
# Leave empty for root, uncomment and fill out if you specified a user
spring.datasource.username=root
spring.datasource.url=jdbc:mysql://34.100.185.146:3306/bookstore
#spring.datasource.driver-class-name=com.mysql.jdbc.Driver
spring.jpa.database=MYSQL
spring.jpa.show-sql=true
spring.jpa.hibernate.ddl-auto=update
Uncomment if root password is specified
#spring.datasource.password=123456789
#spring.cloud.gcp.project-id=
#spring.cloud.gcp.credentials.location=file:/path/to/service-account.json
EXPLORER
DEMO-GCP-SQL-APP
.mvn
src
main
java
resources
templates
application.properties
schema.sql
test
.gitignore
mvnw
mvnw.cmd
pom.xml


Workspaces Applications
May 5 2:56 AM
beastmaster65@menace: ~/Desktop/demo-gcp-sql-app
(base) beastmaster65@menace:~/Desktop$ ls
Courses demo-gcp-sql-app INS Projects Research 'Research Images' SEM-6 THOC_INNOVATIVE Vs-Code Zaamo
(base) beastmaster65@menace:~/Desktop$ cd demo-gcp-sql-app/
(base) beastmaster65@menace:~/Desktop/demo-gcp-sql-app$ mvnw spring-boot:run
Command 'mvnw' not found, did you mean:
command 'mvn' from deb maven (3.6.3-5)
Try: sudo apt install <deb name>
(base) beastmaster65@menace:~/Desktop/demo-gcp-sql-app$ mvn spring-boot:run
[INFO] Scanning for projects...
[INFO]
[INFO] ----------------------< com.example:springGCPwebapp >----------------------
[INFO] Building springGCPwebapp 0.0.1-SNAPSHOT
[INFO] --------------------------------[jar]---------------------------------
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/boot/spring-boot-starter-actuator/2.6.6/spring-boot-starter-actuator-2.6.6.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/boot/spring-boot-starter-actuator/2.6.6/spring-boot-starter-actuator-2.6.6.pom (2.6 kB at 2.1 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/boot/spring-boot-starter/2.6.6/spring-boot-starter-2.6.6.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/boot/spring-boot-starter/2.6.6/spring-boot-starter-2.6.6.pom (3.1 kB at 6.2 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/boot/spring-boot/2.6.6/spring-boot-2.6.6.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/boot/spring-boot/2.6.6/spring-boot-2.6.6.pom (2.2 kB at 4.5 kB/s)
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Downloading from spring-releases: https://repo.spring.io/release/org/springframework/spring-jcl/5.3.18/spring-jcl-5.3.18.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/spring-jcl/5.3.18/spring-jcl-5.3.18.pom (1.8 kB at 3.7 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/spring-context/5.3.18/spring-context-5.3.18.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/spring-context/5.3.18/spring-context-5.3.18.pom (2.6 kB at 5.1 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/spring-aop/5.3.18/spring-aop-5.3.18.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/spring-aop/5.3.18/spring-aop-5.3.18.pom (2.2 kB at 4.4 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/spring-beans/5.3.18/spring-beans-5.3.18.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/spring-beans/5.3.18/spring-beans-5.3.18.pom (2.0 kB at 4.1 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/spring-expression/5.3.18/spring-expression-5.3.18.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/spring-expression/5.3.18/spring-expression-5.3.18.pom (2.1 kB at 4.2 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/boot/spring-boot-autoconfigure/2.6.6/spring-boot-autoconfigure-2.6.6.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/boot/spring-boot-autoconfigure/2.6.6/spring-boot-autoconfigure-2.6.6.pom (2.1 kB at 4.1 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/boot/spring-boot-starter-logging/2.6.6/spring-boot-starter-logging-2.6.6.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/boot/spring-boot-starter-logging/2.6.6/spring-boot-starter-logging-2.6.6.pom (2.5 kB at 5.0 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/ch/qos/logback/logback-classic/1.2.11/logback-classic-1.2.11.pom
[INFO] >>> spring-boot-maven-plugin:2.6.6:run (default-cli) > test-compile @ springGCPwebapp >>>
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/spring-jcl/5.3.18/spring-jcl-5.3.18.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/spring-jcl/5.3.18/spring-jcl-5.3.18.pom (1.8 kB at 3.7 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/spring-context/5.3.18/spring-context-5.3.18.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/spring-context/5.3.18/spring-context-5.3.18.pom (2.6 kB at 5.1 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/spring-aop/5.3.18/spring-aop-5.3.18.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/spring-aop/5.3.18/spring-aop-5.3.18.pom (2.2 kB at 4.4 kB/s)
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Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/spring-beans/5.3.18/spring-beans-5.3.18.pom (2.0 kB at 4.1 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/spring-expression/5.3.18/spring-expression-5.3.18.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/spring-expression/5.3.18/spring-expression-5.3.18.pom (2.1 kB at 4.2 kB/s)
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Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/boot/spring-boot-autoconfigure/2.6.6/spring-boot-autoconfigure-2.6.6.pom (2.1 kB at 4.1 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/org/springframework/boot/spring-boot-starter-logging/2.6.6/spring-boot-starter-logging-2.6.6.pom
Downloaded from spring-releases: https://repo.spring.io/release/org/springframework/boot/spring-boot-starter-logging/2.6.6/spring-boot-starter-logging-2.6.6.pom (2.5 kB at 5.0 kB/s)
Downloading from spring-releases: https://repo.spring.io/release/ch/qos/logback/logback-classic/1.2.11/logback-classic-1.2.11.pom

Demo Spring Web App with GCP Cloud SQL Integration
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Add Book
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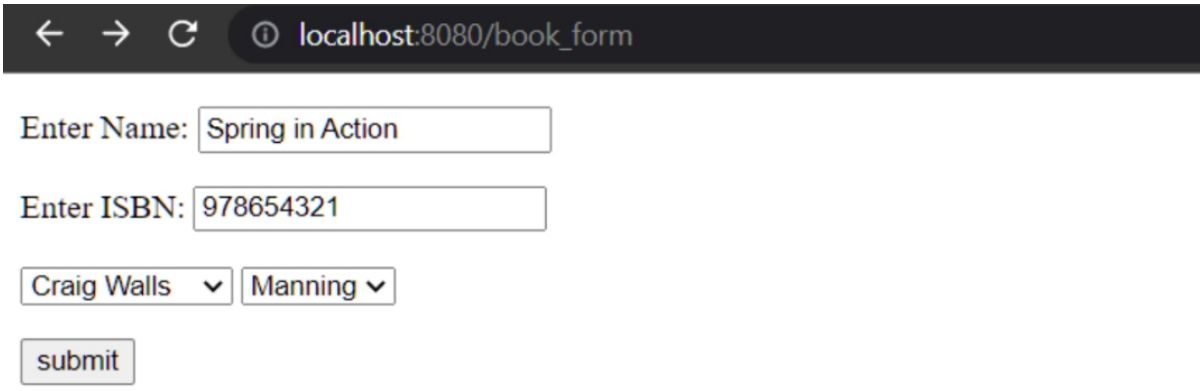
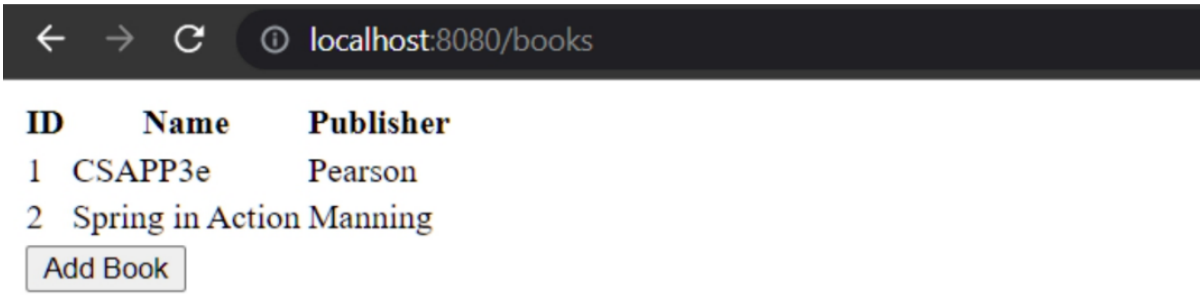
Show Publishers
Show Books


localhost:8080/book_form
Enter Name: Spring in Action
Enter ISBN: 978654321
Craig Walls
Manning
submit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1 CSAPP3e Pearson
2 Spring in Action Manning
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