Practical 9

Cloud Computing

2CSDE67

Mistry Unnat

20BCE515

Date

May 6, 2022

Department of Computer Science and Engineering

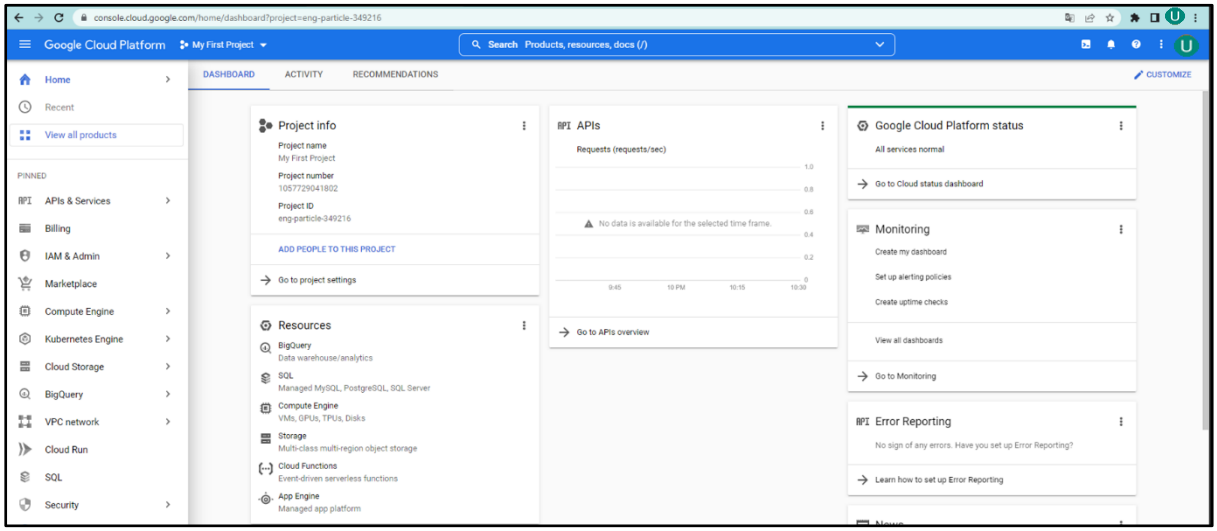
Institute of Technology

Nirma University

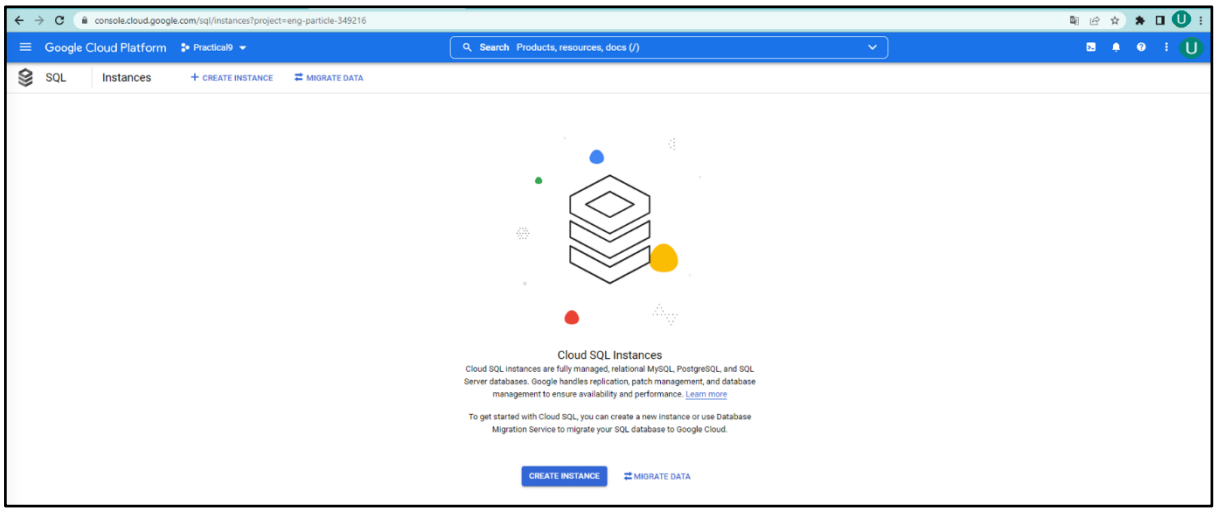
Ahmedabad

Aim: Google Cloud Platform and SQL integration

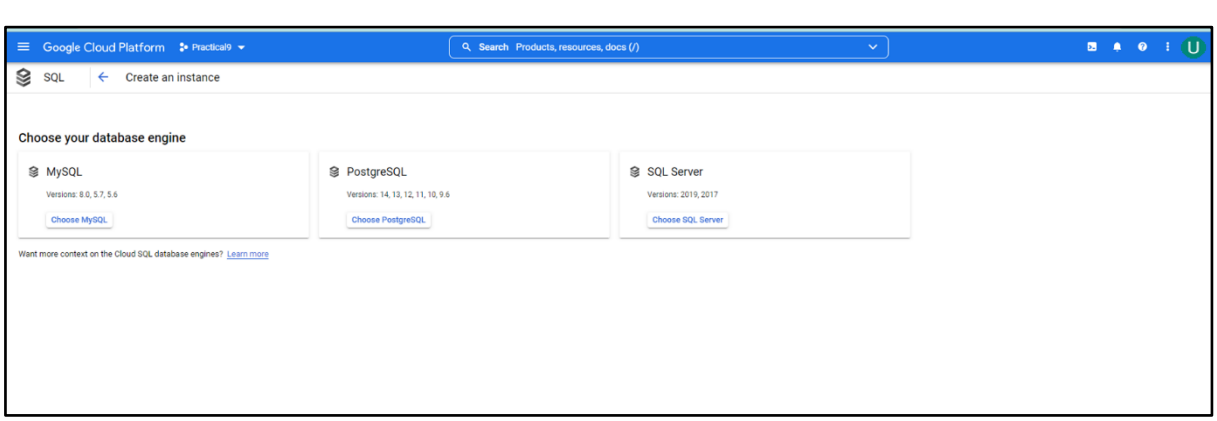
1. After creating a google cloud platform engine create a new project.



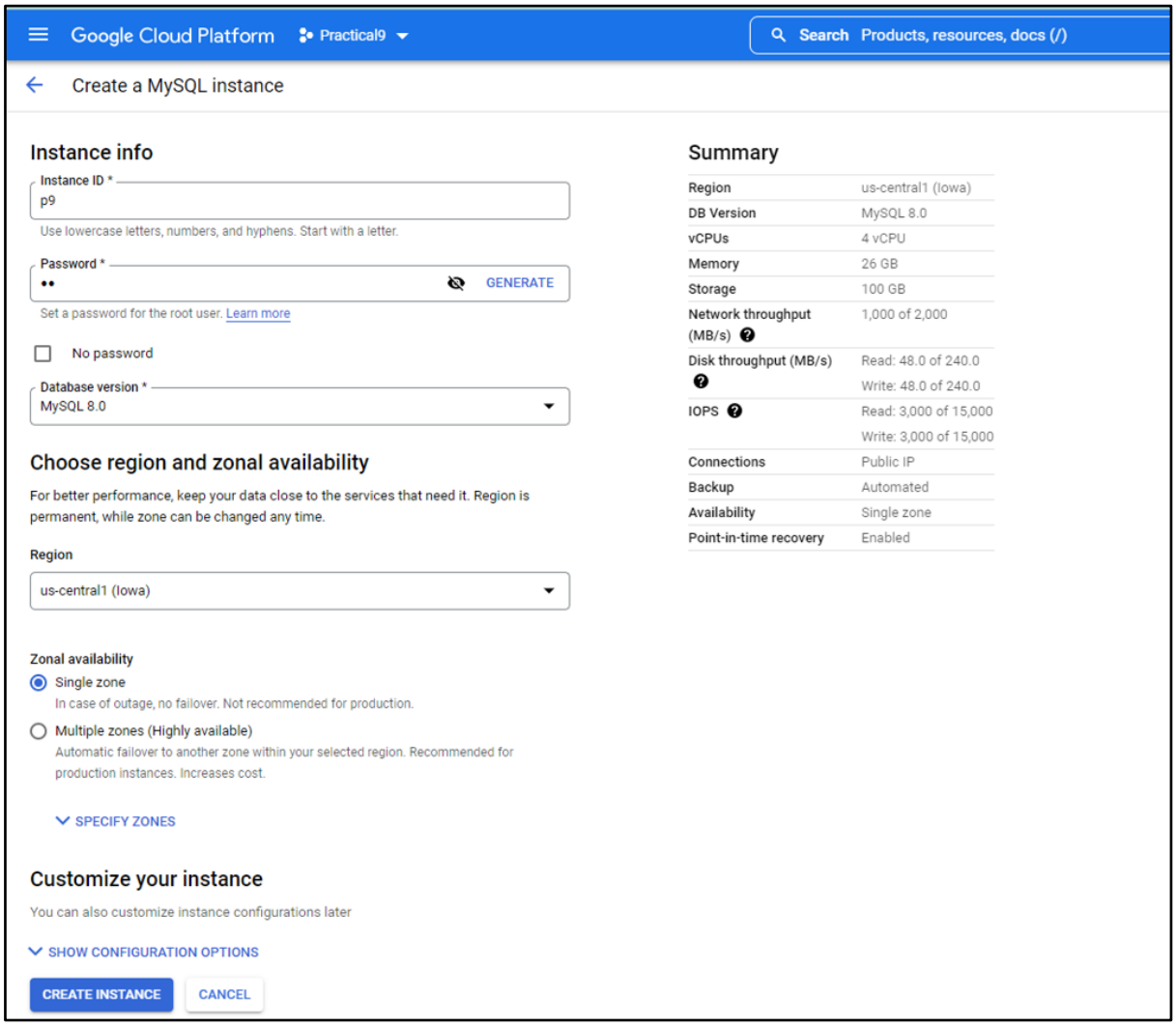
2. Now navigate from sql from sidebar



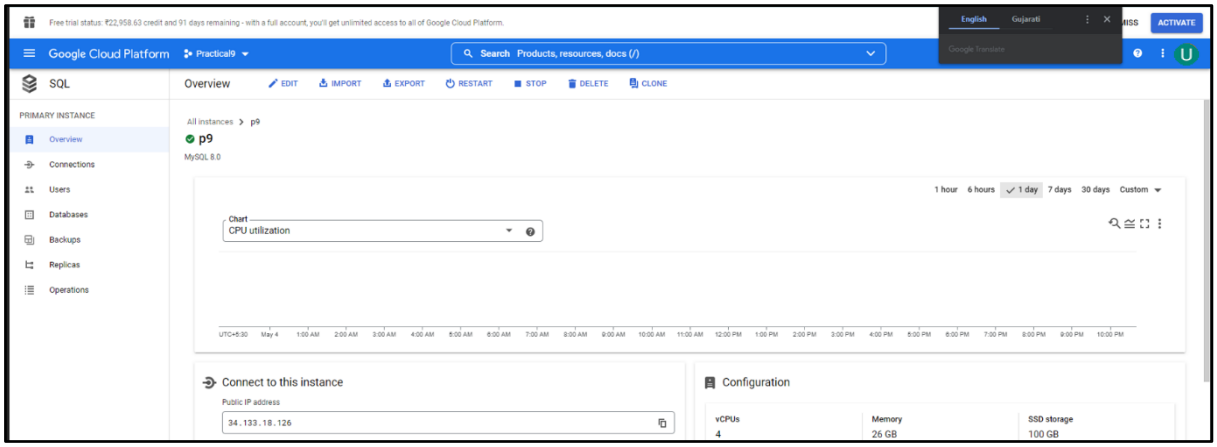
3. Select MySQL database engine and enable Compute Engine API



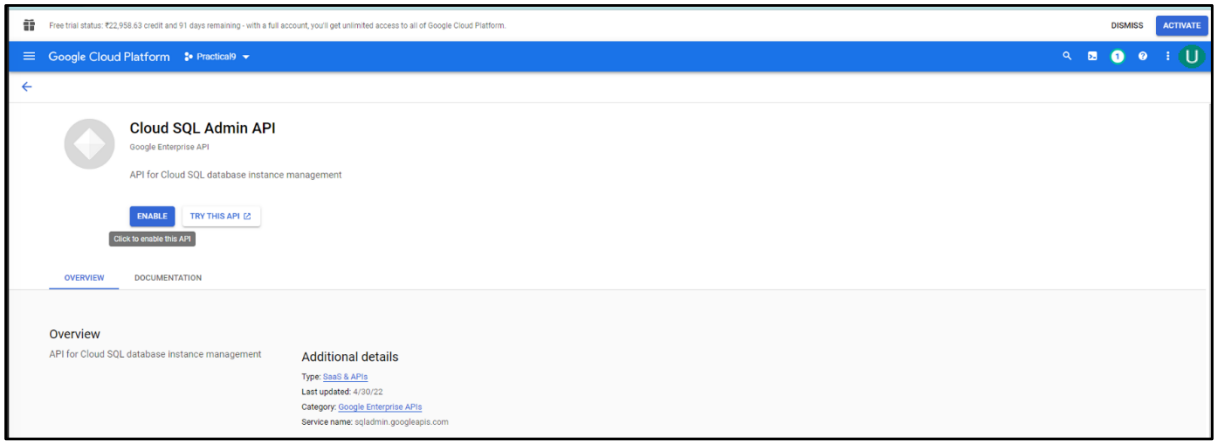
4. Configure MySQL instance as per requirement. Enter instance ID and password. Leave all other values default.



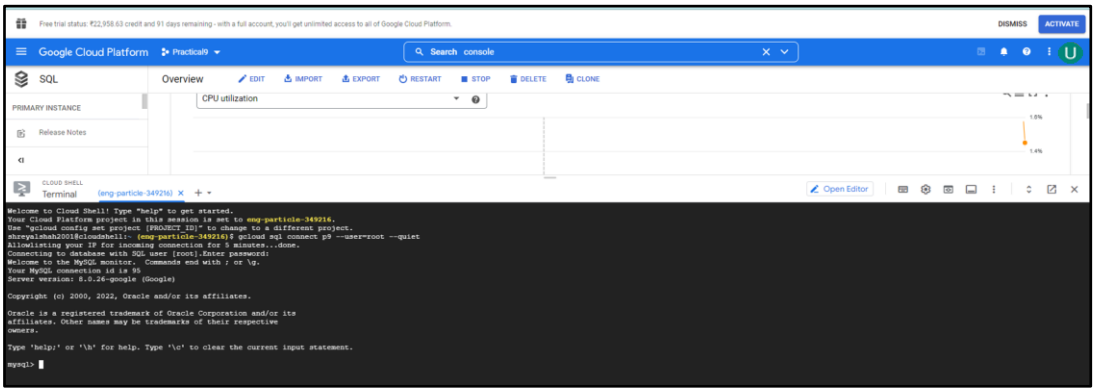
5. Now Instance gets created.



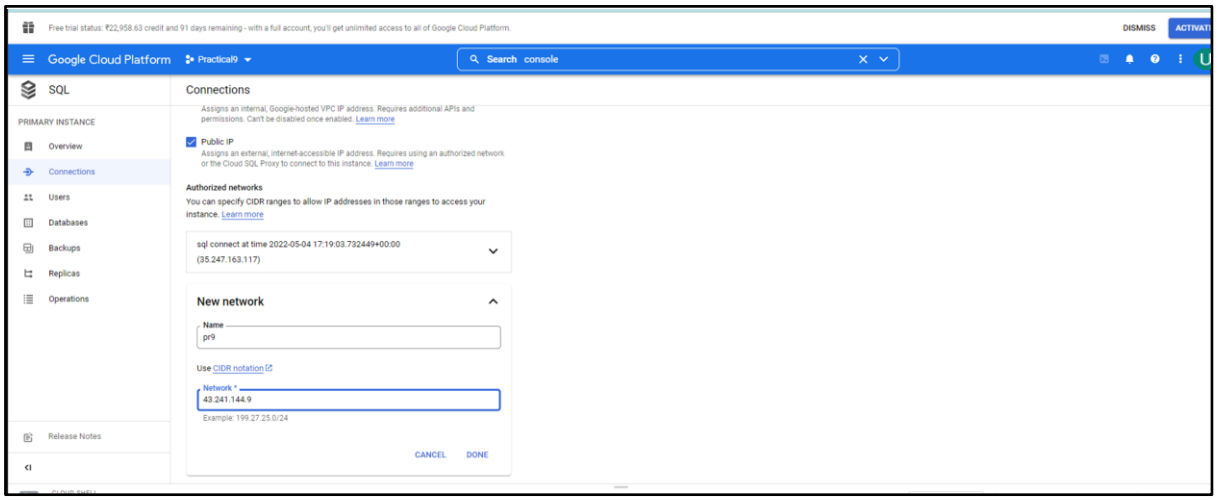
6. To access database and perform CRUD operations, we need to enable the API. Navigate to APIs and Services -> Enabled APIs and Services and search for "Cloud SQL Admin". Enable the API



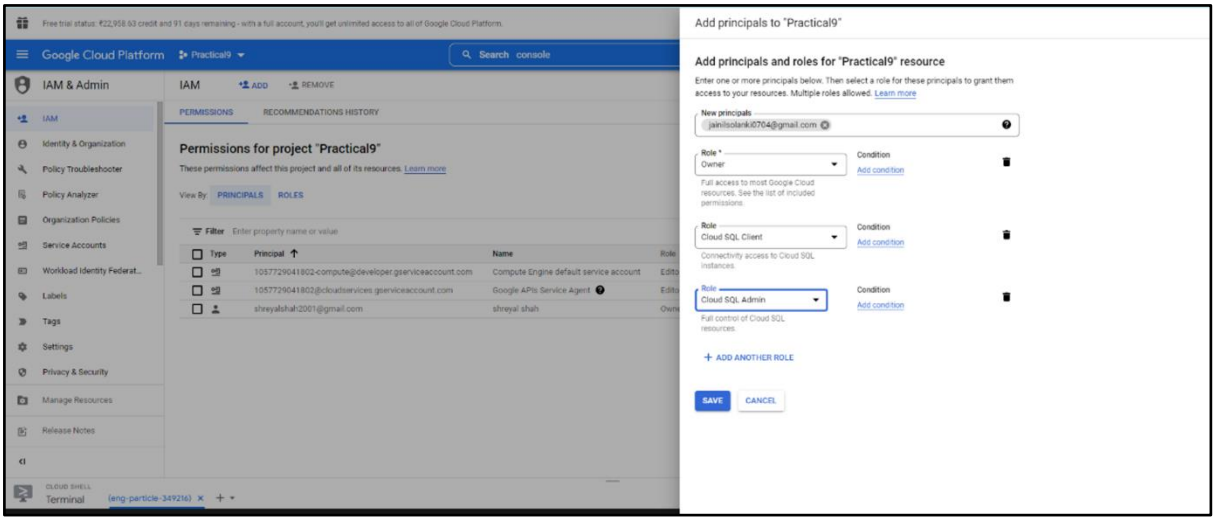
7. Now we can access MySQL service from the console. Go back to SQL tab and open console. Log in with the following command: cloud sql connect <instance_name> --user=root –quiet



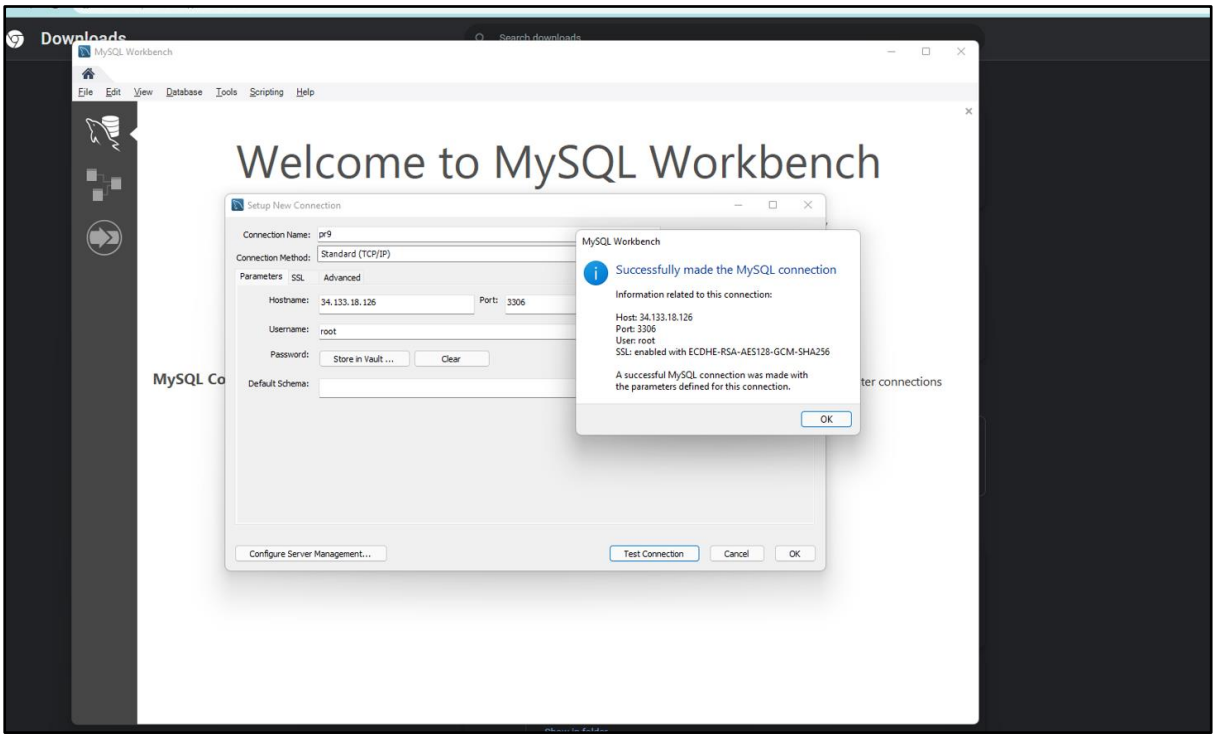
8. To access cloud instance from public IP, we need to add our own public IP to instance ACL. Go to SQL tab -> Connections and add a new network to authorized networks. Enter your own local IP in the prompt and click Save.

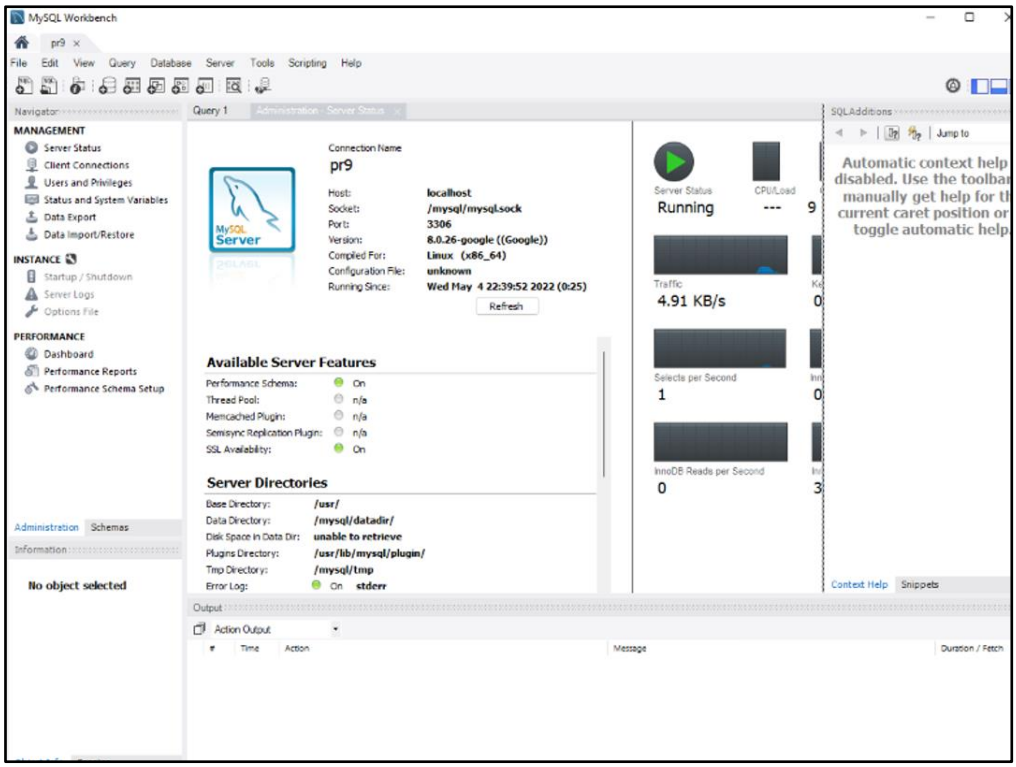


9. Go to IAM -> Permissions tab. Add a new principal and add 3 roles: Owner, Cloud SQL Admin and Cloud SQL client.

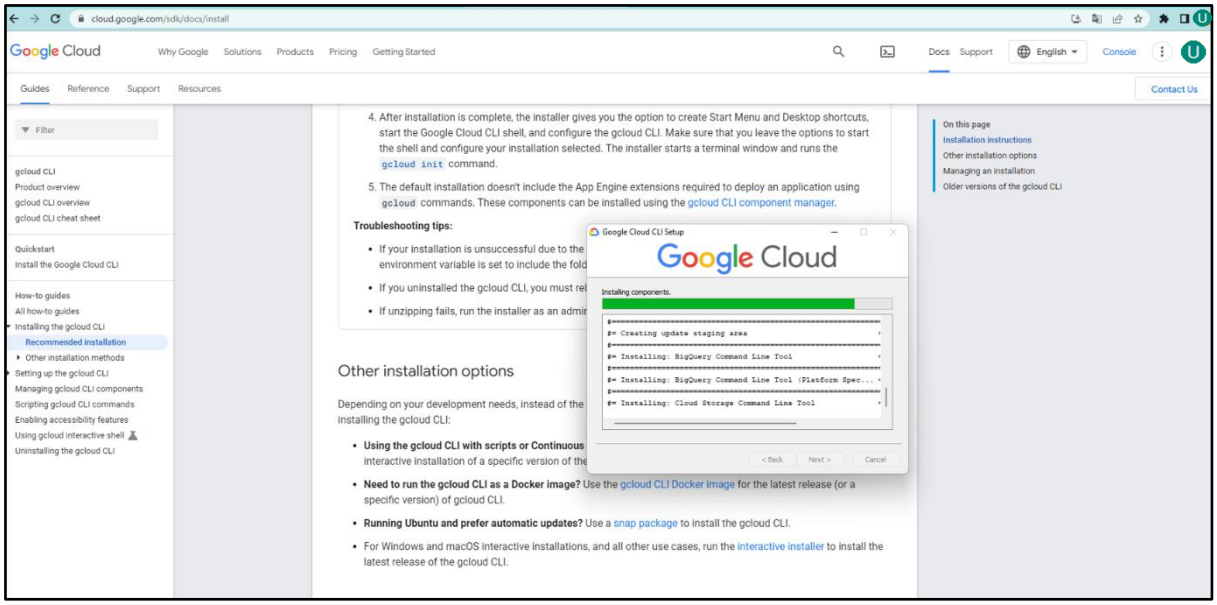


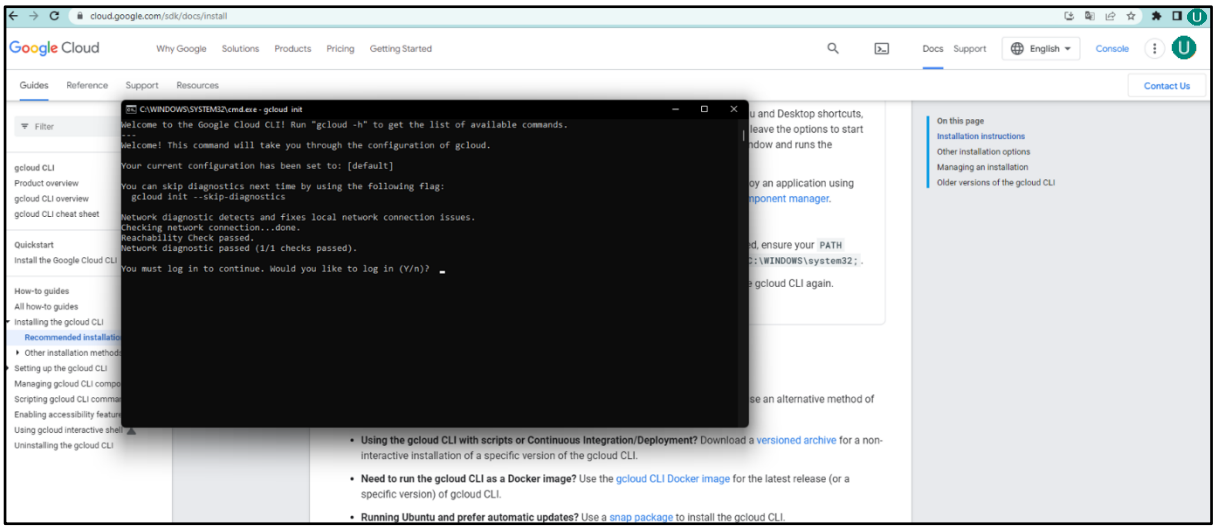
10. Enter the copied public IP in MySQL workbench connection prompt. Click connect and enter password when prompted.

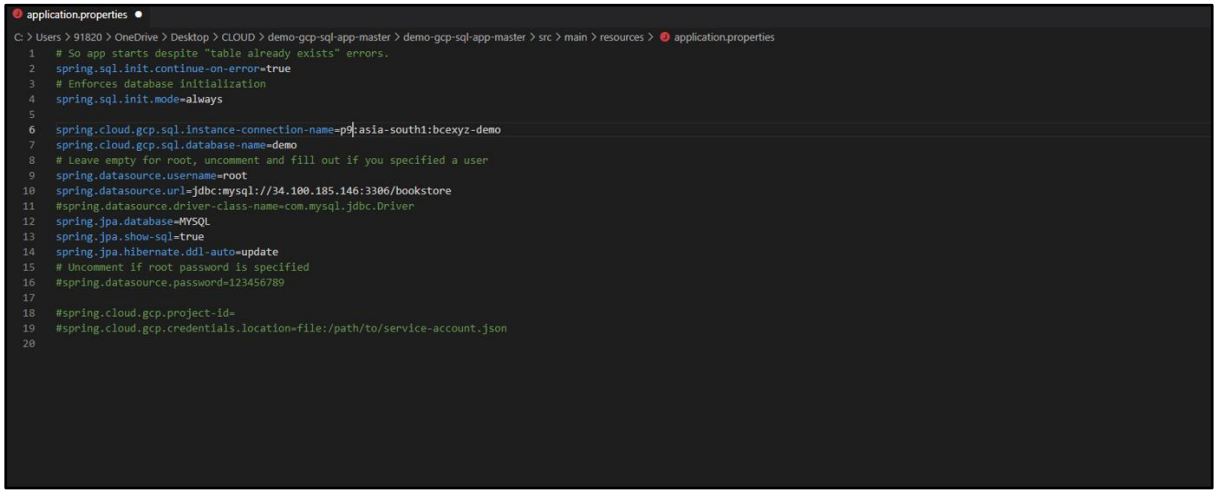


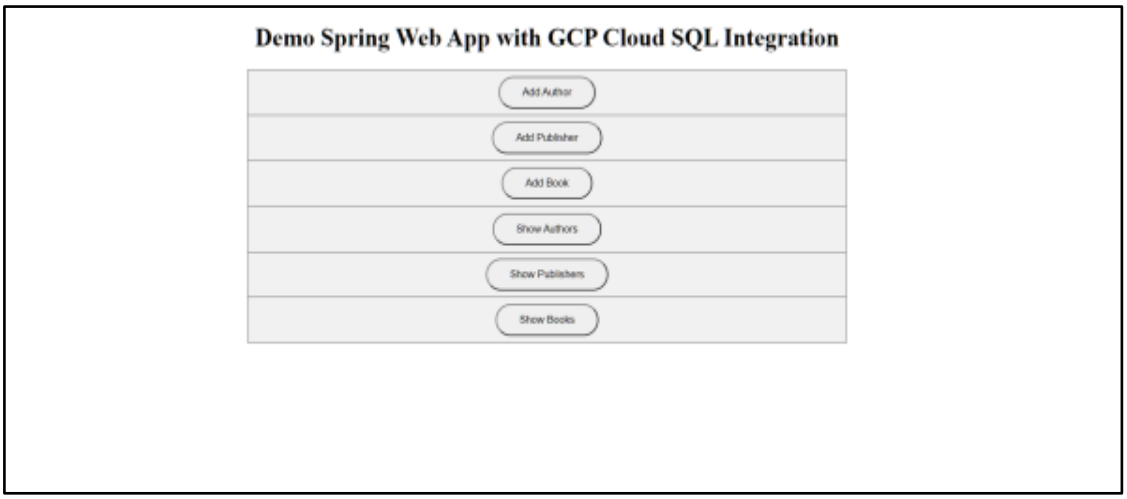


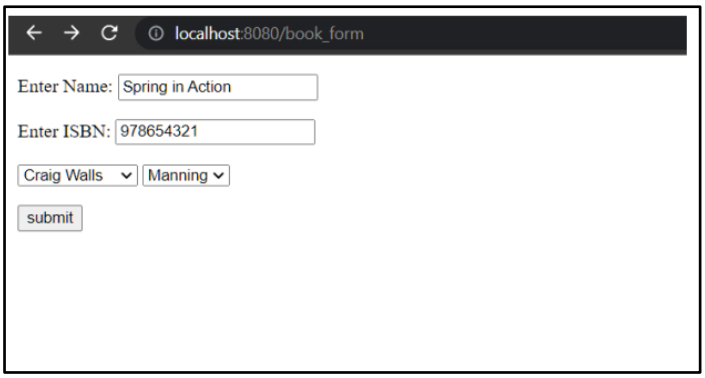
11. We need Cloud CLI SDK for authentication of our apps with the Google Cloud Platform. Install Google Cloud CLI SDK

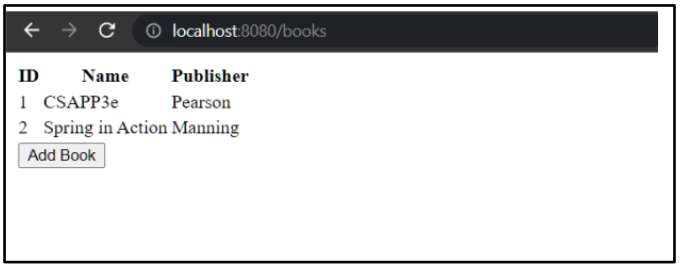



cloud.google.com/sdk/docs/install
Google Cloud
Why Google
Solutions
Products
Pricing
Getting Started
Docs
Support
English
Console
Guides
Reference
Support
Resources
Contact Us
C:\WINDOWS\SYSTEM32\cmd.exe - gcloud init
Welcome to the Google Cloud CLI! Run "gcloud -h" to get the list of available commands.
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)?
On this page
Installation instructions
Other installation options
Managing an installation
Older versions of the gcloud CLI
Using the gcloud CLI with scripts or Continuous Integration/Deployment? Download a versioned archive for a non-interactive installation of a specific version of the gcloud CLI.
Need to run the gcloud CLI as a Docker image? Use the gcloud CLI Docker image for the latest release (or a specific version) of gcloud CLI.
Running Ubuntu and prefer automatic updates? Use a snap package to install the gcloud CLI.


application.properties
C: > Users > 91820 > OneDrive > Desktop > CLOUD > demo-gcp-sql-app-master > demo-gcp-sql-app-master > src > main > resources > application.properties
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=p9:asia-south1:bcexyz-demo
spring.cloud.gcp.sql.database-name=demo
# 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


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


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


localhost:8080/books
ID Name Publisher
1 CSAPP3e Pearson
2 Spring in Action Manning
Add Book

END