

## Practical-4 To Demonstrate Platform as a Service using Googleapp Engine/ IBM BlueMix/ tSuru

Name: Anshika Sharma

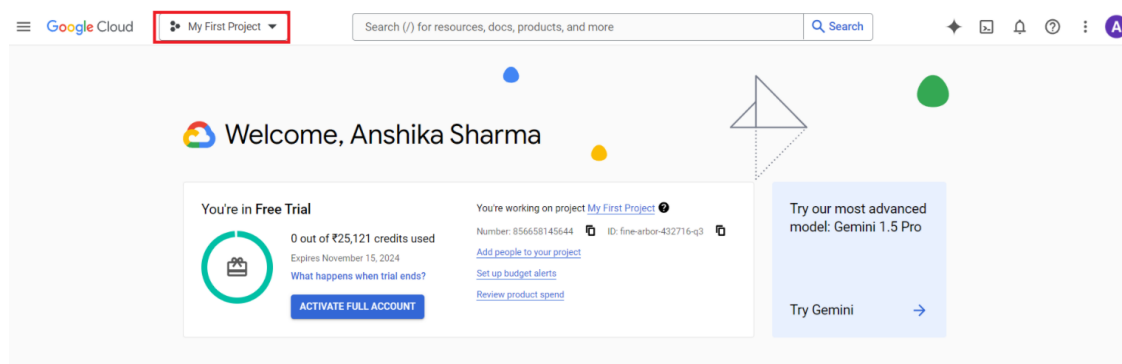
SAP ID: 86062300034

Roll No: A061

1. Firstly, Create an account with Google Cloud Platform.

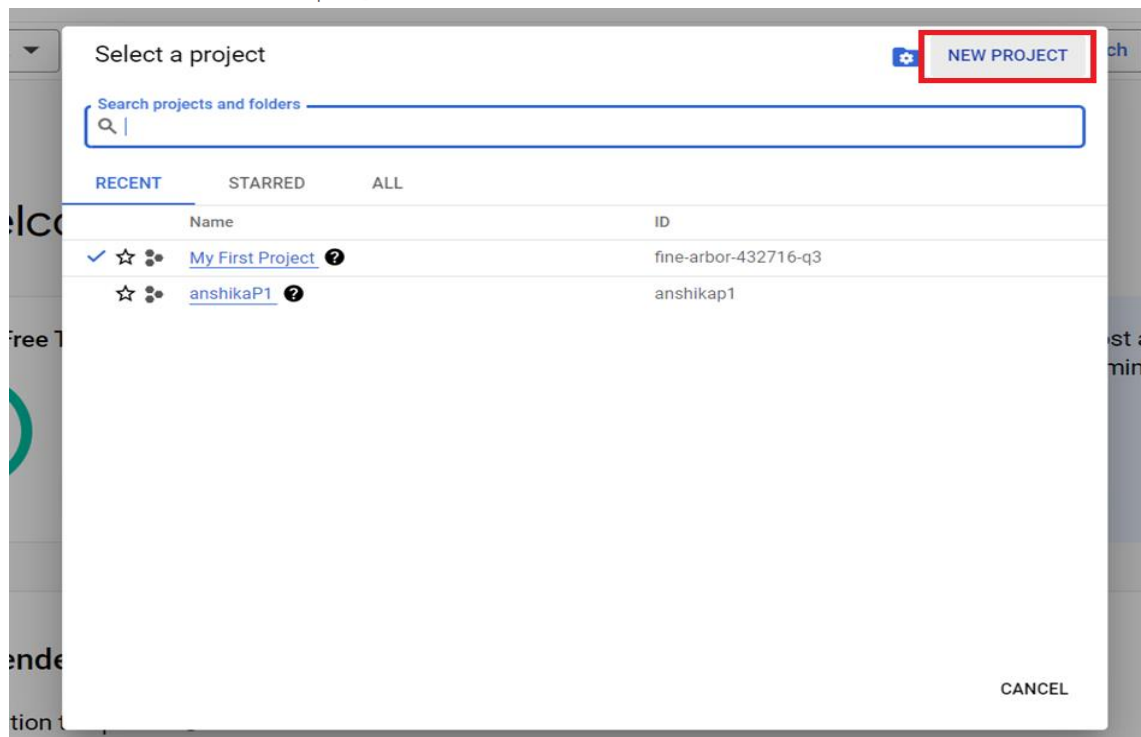
After being signed up, a page like below appears.

Click on My First Project and then NEW PROJECT.




Recommended based on your interest in Web, Mobile, Game, Storage

Pre-built solution templates




2. Provide Project name, this part will be unique. Location can be No organization


## New Project

 You have 10 projects remaining in your quota. Request an increase or delete projects. [Learn more](#)

[MANAGE QUOTAS](#)

**Project name \***  
anshikaP1 

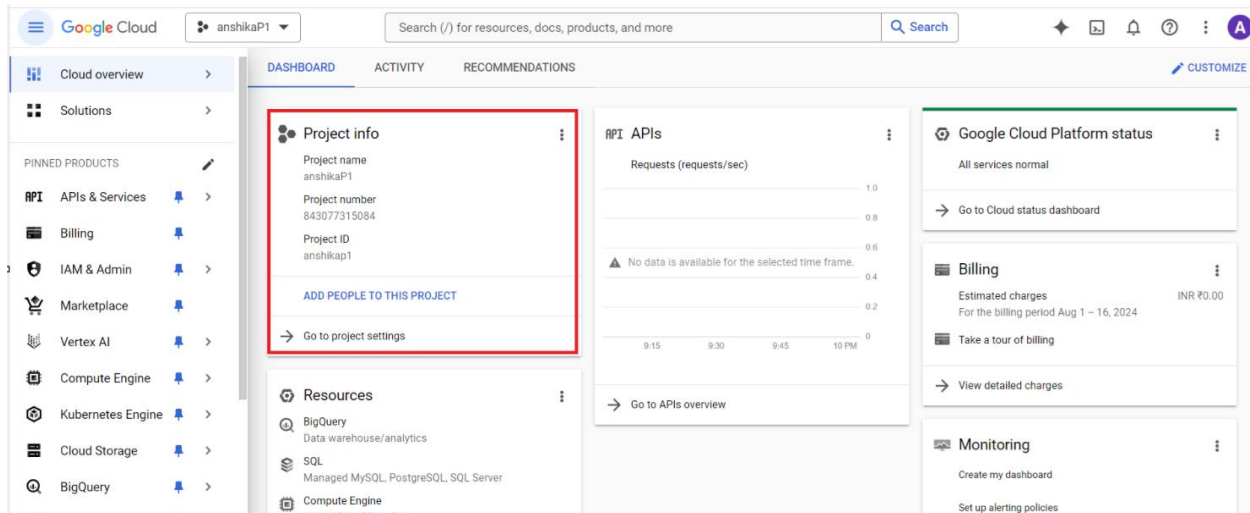
Project ID: anshikap1-432716. It cannot be changed later. [EDIT](#)

**Location \***  
 No organization [BROWSE](#)

Parent organization or folder

[CREATE](#) [CANCEL](#)

3. After Google cloud creates new project as per name specified in previous step, it opens up project home, showing dashboard. Highlighted part will be unique.

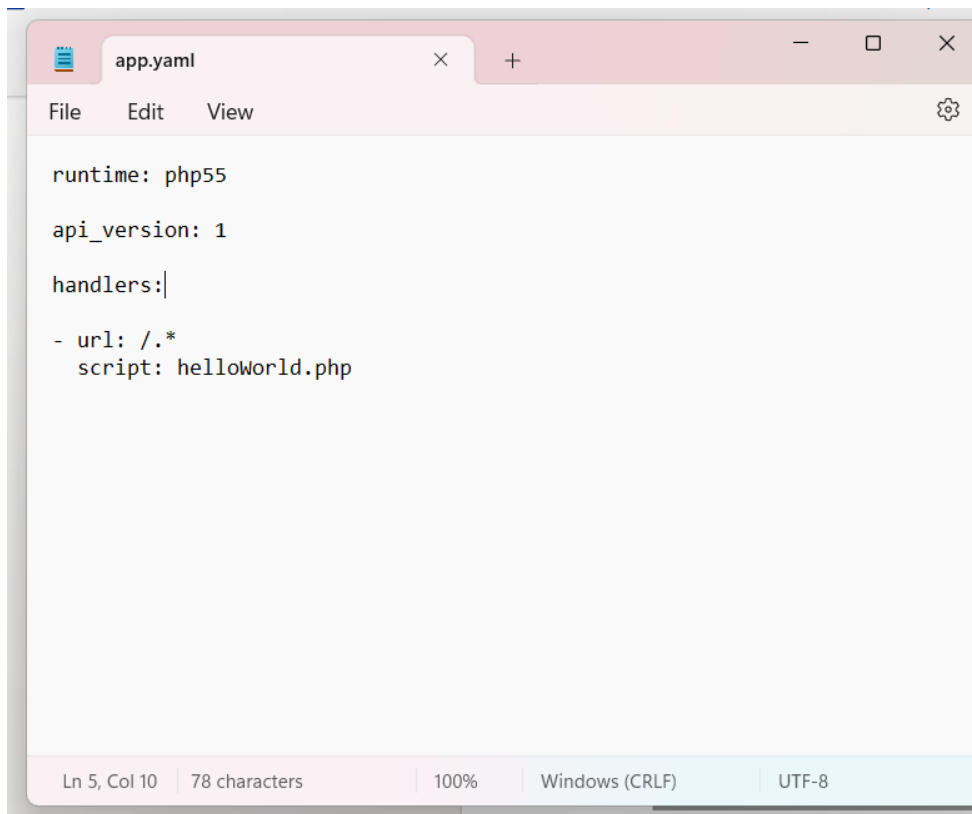


The screenshot shows the Google Cloud project dashboard for the project 'anshikaP1'. The 'Project info' section is highlighted with a red box, displaying the following information:

- Project name: anshikaP1
- Project number: 843077315084
- Project ID: anshikap1

Below the project info, there is a link to 'Go to project settings'. The dashboard also includes sections for 'APIs', 'Google Cloud Platform status', 'Billing', and 'Monitoring'.

4. Create a new configuration file app.yaml. yaml file contains information about your app's code, such as the runtime and the latest version identifier. Each service in your app has its own app.yaml file, which acts as a descriptor for its deployment.

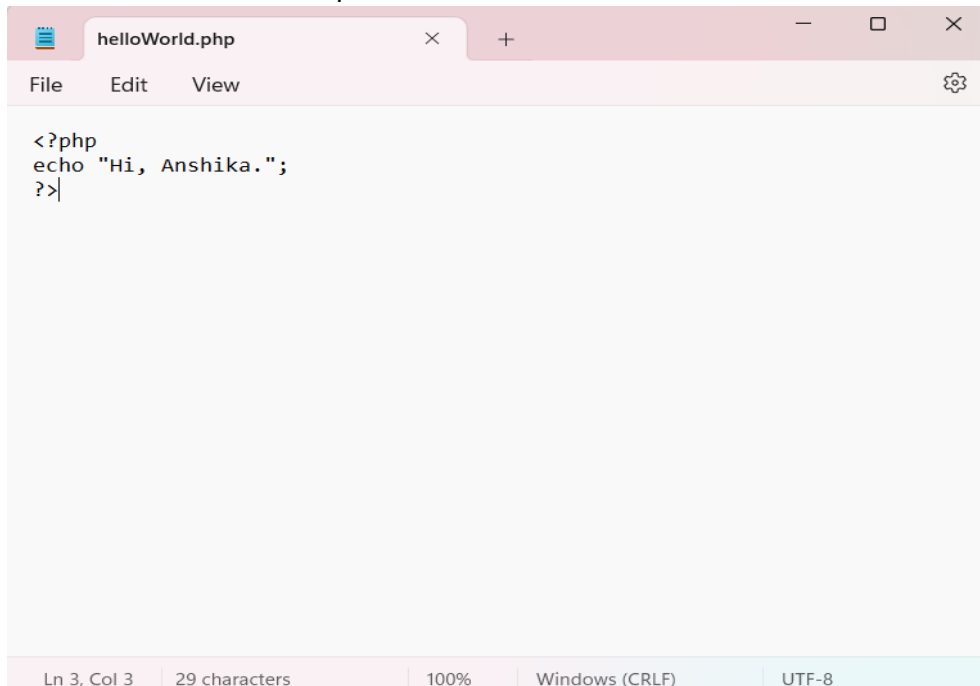


A screenshot of a code editor window titled 'app.yaml'. The editor has a menu bar with 'File', 'Edit', and 'View'. The code content is as follows:

```
runtime: php55
api_version: 1
handlers:|
- url: /*
  script: helloWorld.php
```

The status bar at the bottom shows 'Ln 5, Col 10', '78 characters', '100%', 'Windows (CRLF)', and 'UTF-8'.

5. Create a PHP code to upload and run.



A screenshot of a code editor window titled 'helloWorld.php'. The editor has a menu bar with 'File', 'Edit', and 'View'. The code content is as follows:

```
<?php
echo "Hi, Anshika.";
?>
```

The status bar at the bottom shows 'Ln 3, Col 3', '29 characters', '100%', 'Windows (CRLF)', and 'UTF-8'.

6. In order to deploy and run the PHP code on Google cloud platform download latest Google Cloud SDK and install it.

Google Cloud Documentation Technology areas Cross-product tools Related sites

Cloud SDK Guides Reference Support Resources

Filter

- gcloud CLI
- Product overview
- gcloud CLI overview
- gcloud CLI cheat sheet

Quickstart

- Install the Google Cloud CLI

How-to guides

- 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

Linux Debian/Ubuntu Red Hat/Fedora/CentOS macOS Windows Chromebook

The Google Cloud CLI works on Windows 8.1 and later and Windows Server 2012 and later.

1. Download the **Google Cloud CLI installer**.

Alternatively, open a PowerShell terminal and run the following PowerShell commands:

```
(New-Object Net.WebClient).DownloadFile("https://dl.google.com/dl/cloudsdk/channels/rapid/downloads/google-cloud-cli-488.0.0-windows.exe")  
& $env:Temp\GoogleCloudSDKInstaller.exe
```

2. Launch the installer and follow the prompts. The installer is signed by Google LLC.

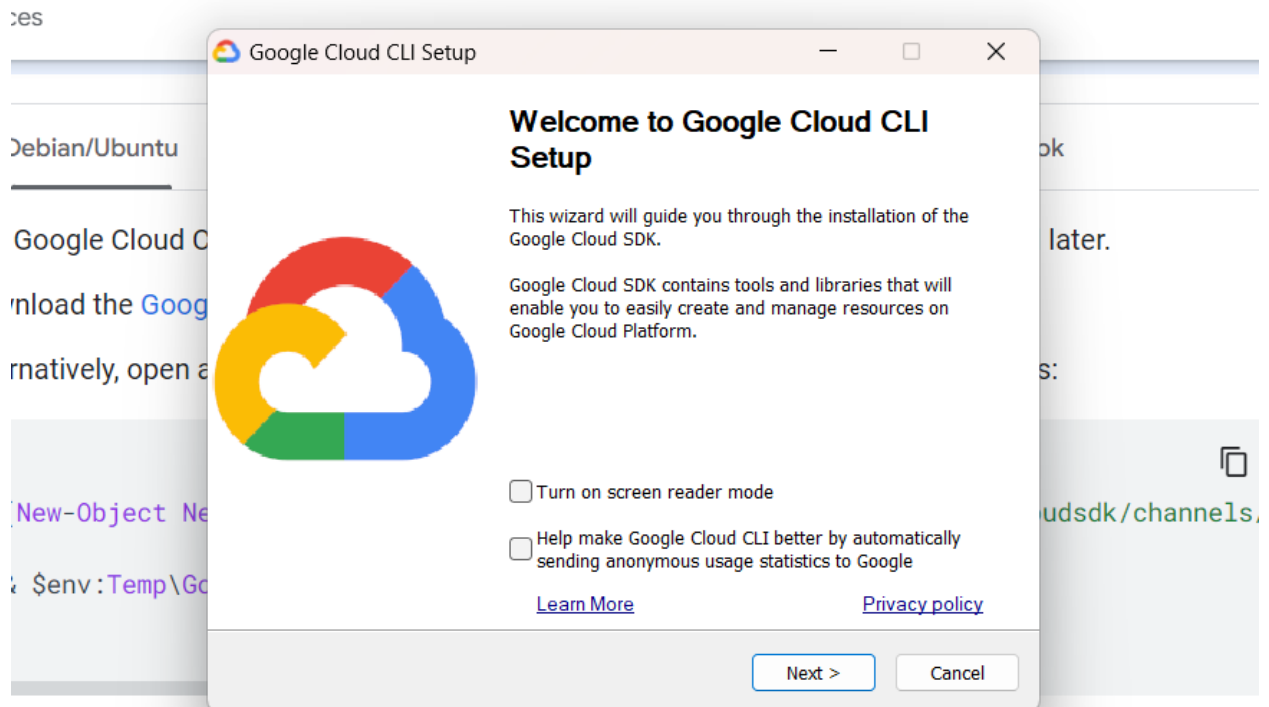
If you're using a screen reader, check the **Turn on screen reader mode** checkbox. This option configures gcloud to use status trackers instead of unicode spinners, display progress as a percentage, and flatten tables. For more information, see the [Accessibility features guide](#).

3. Google Cloud CLI requires Python; supported versions are Python 3.8 to 3.12. By default, the Windows version of Google Cloud CLI comes bundled with Python 3. To use Google Cloud CLI your operating system must be able to run a supported version of Python.

On this page

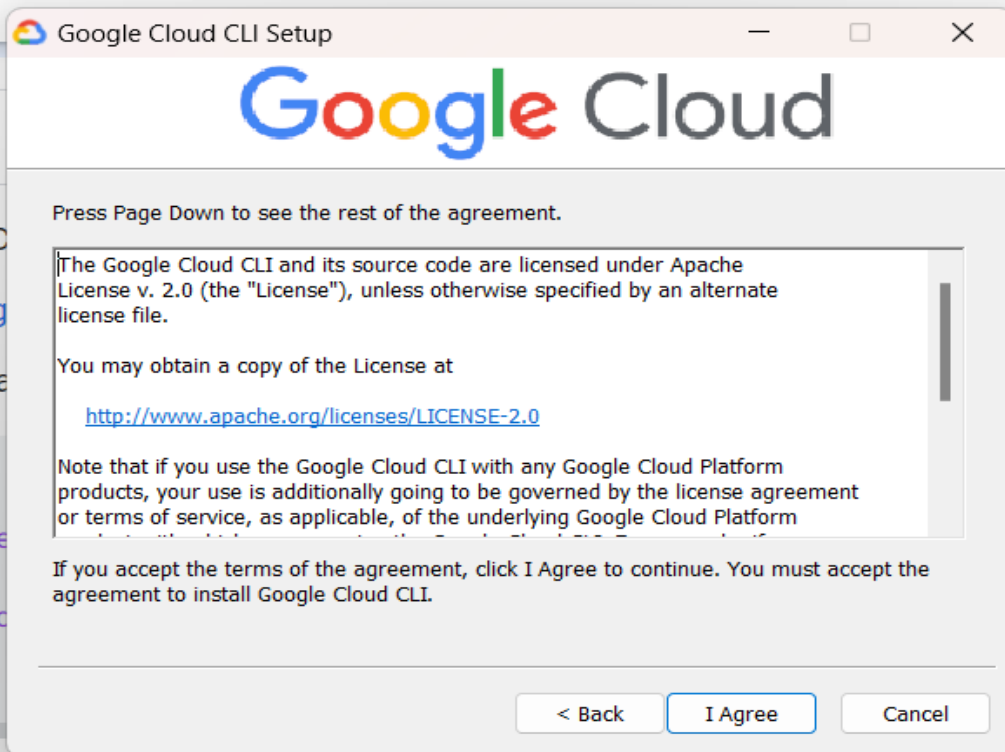
- Before you begin
- Installing the latest gcloud CLI version (488.0.0)
- Optional: Install the latest Cloud Client Libraries
- Initializing the gcloud CLI
- Running core commands
- Clean up
- What's next

7. After installation of PHP, open Google cloud SDK installer. It will take some time to download and install SDK from Google Server. At end of installation check Start Google Cloud SDK Shell and Run 'gcloud init' to configure the Cloud SDK.

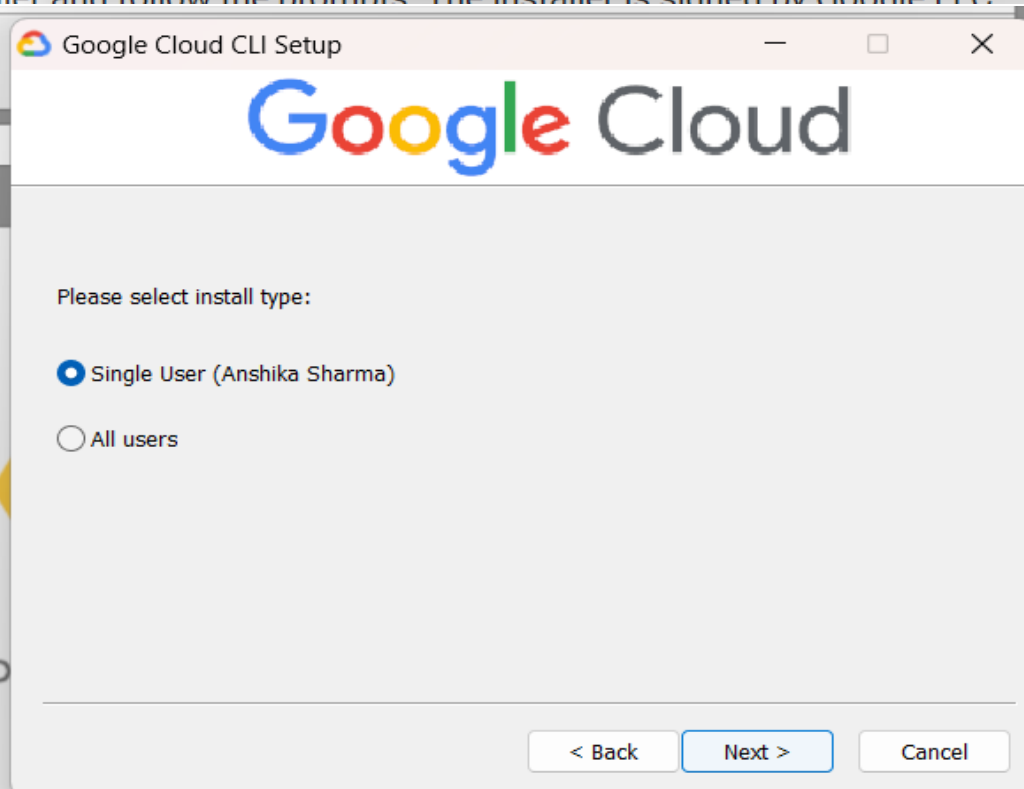


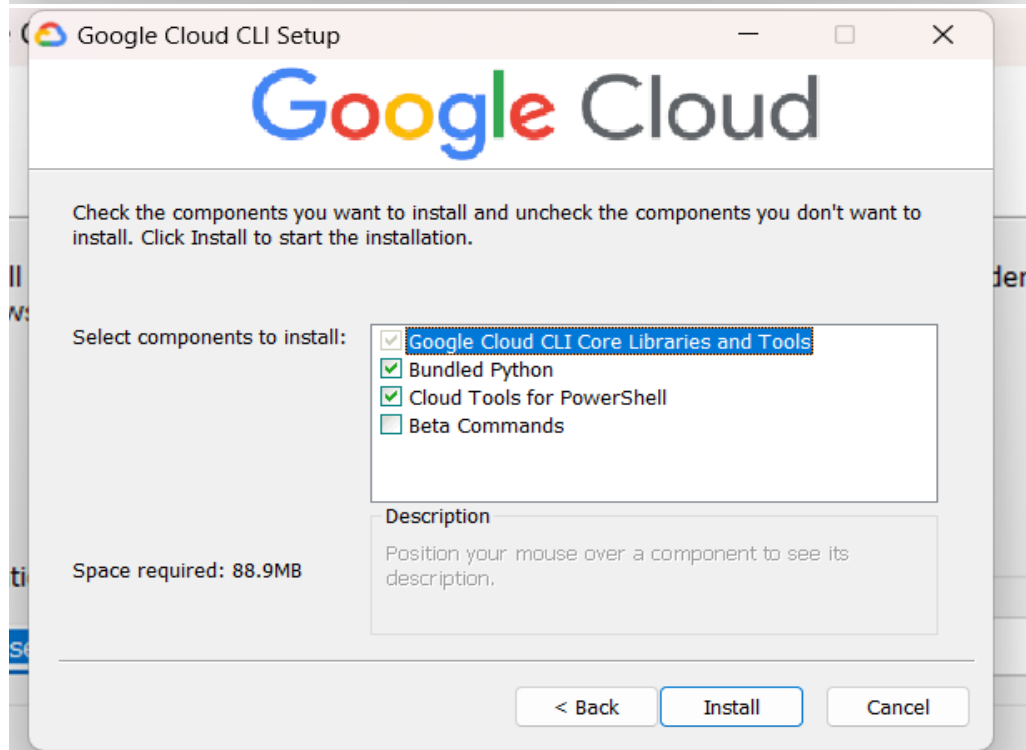
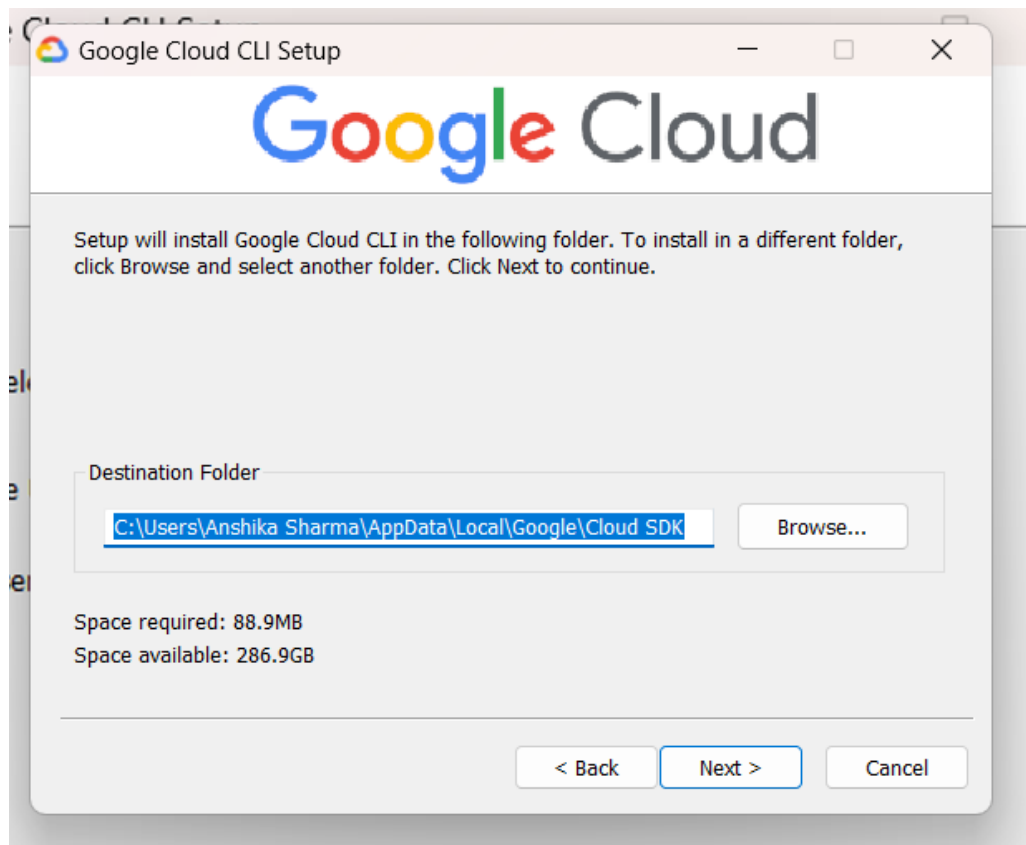
Launch the installer and follow the prompts. The installer is signed by Google LLC.

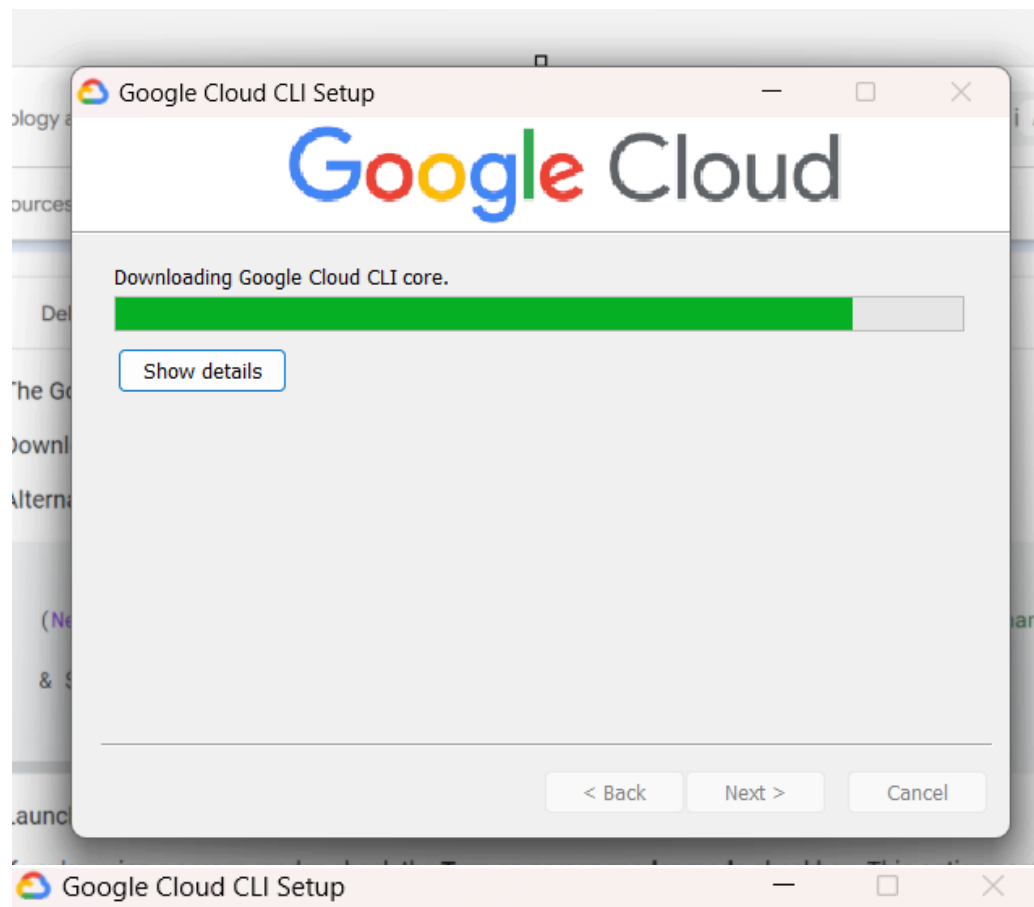
If you're using a screen reader, check the **Turn on screen reader mode** checkbox. This option configures gcloud to use status trackers instead of unicode spinners, display progress as a percentage, and flatten



aller and follow the prompts. The installer is signed by Google LLC.







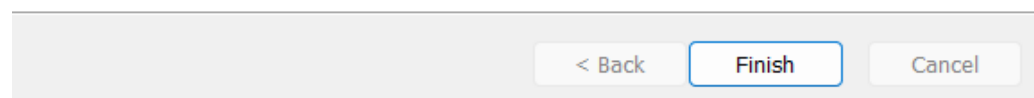
## Completing Google Cloud CLI Setup

Google Cloud CLI has been installed on your computer.

Click Finish to close Setup.



- ☒ Create Start Menu shortcut
- ☒ Create Desktop shortcut
- ☒ Start Google Cloud SDK Shell
- ☒ Run 'gcloud init' to configure the Google Cloud CLI



8. Previous step will open up command prompt with gcloud init command running automatically. It will ask you to login using Google account on which you have joined Google Cloud Platform. After successful login web browser page of cloud.google.com will show You are now authenticated with Google Cloud SDK.

```
C:\WINDOWS\SYSTEM32\cmd
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 sign in to continue. Would you like to sign in (Y/n)?
```

```
C:\WINDOWS\SYSTEM32\cmd
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 sign in to continue. Would you like to sign 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%2Fsqlservice.login+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcompute+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Faccounts.reauth&state=mdbOP9HRQjDYrYysvIBh7tmOww40AX&access_type=offline&code_challenge=ipv-KfH0rYohRFgT1Ef0hucszR24deiCNVEBdr89Lxg&code_challenge_method=S256
|
```




## 9. Sign in to Google Cloud SDK

Sign in with Google



### Sign in to Google Cloud SDK

 anshika271101@gmail.com

Cancel

Continue


English (United States)

Help


Privacy

Terms

Sign in with Google



### Google Cloud SDK wants to access your Google Account

 anshika271101@gmail.com

This will allow **Google Cloud SDK** to:

- See, edit, configure, and delete your Google Cloud data and see the email address for your Google Account. ⓘ
- View and sign in to your Google Cloud SQL instances ⓘ
- View and manage your Google Compute Engine resources ⓘ
- View and manage your applications deployed on Google App Engine ⓘ

**Make sure you trust Google Cloud SDK**

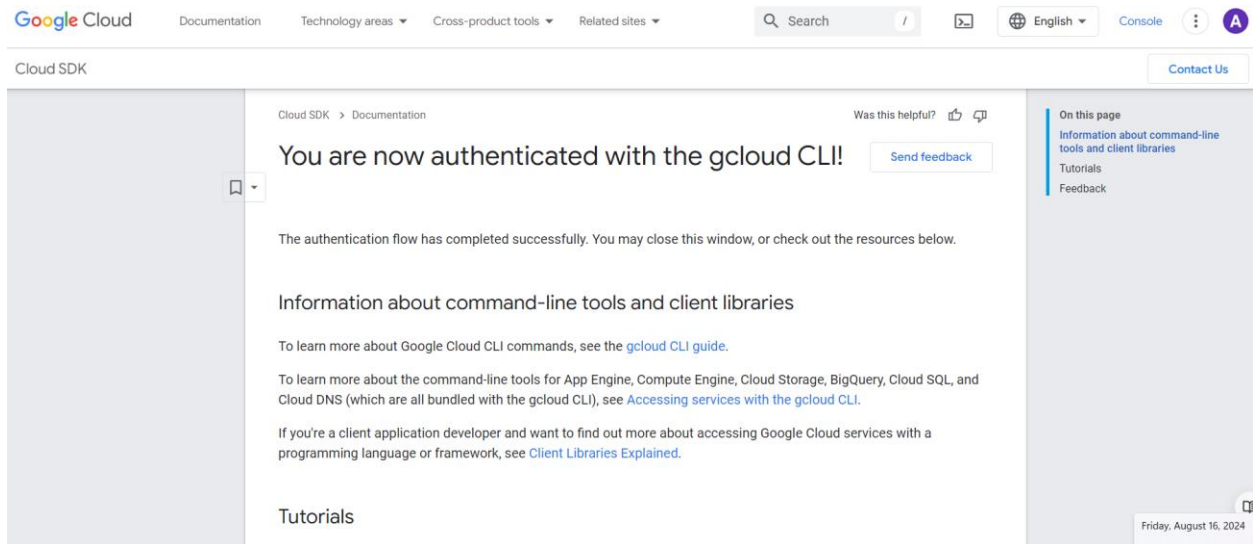
You may be sharing sensitive info with this site or app. Learn about how Google Cloud SDK will handle your data by reviewing its terms of service and privacy policies. You can always see or remove access in your [Google Account](#).

[Learn about the risks](#)

Cancel

Allow

## 10. You are now authenticated with Google Cloud CLI



## 11. In command prompt, running in background will ask you to select project you want to deploy and run. Enter appropriate number and hit enter.

```
C:\WINDOWS\SYSTEM32\cmd.exe
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 sign in to continue. Would you like to sign 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%2Fsqlservice.login+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcompute+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Faccounts.reauth&state=mdbOP9HRQjDYrYysvIBh7tm0ww40AX&access_type=offline&code_challenge=ipv-KfH0rYohRFgT1Ef0hucszR24deiCNVEBdr89Lxg&code_challenge_method=S256

You are signed in as: [anshika271101@gmail.com].

Pick cloud project to use:
[1] anshikap1
[2] fine-arbor-432716-q3
[3] Enter a project ID
[4] Create a new project
Please enter numeric choice or text value (must exactly match list item): |
```

```
C:\WINDOWS\SYSTEM32\cmd.exe
[4] Create a new project
Please enter numeric choice or text value (must exactly match list item): 1

Your current project has been set to: [anshikap1].

Not setting default zone/region (this feature makes it easier to use
[gcloud compute] by setting an appropriate default value for the
--zone and --region flag).
See https://cloud.google.com/compute/docs/gcloud-compute section on how to set
default compute region and zone manually. If you would like [gcloud init] to be
able to do this for you the next time you run it, make sure the
Compute Engine API is enabled for your project on the
https://console.developers.google.com/apis page.

Error creating a default .boto configuration file. Please run [gsutil config -n] if you would like to create this file.
The Google Cloud CLI is configured and ready to use!

* Commands that require authentication will use anshika271101@gmail.com by default
* Commands will reference project 'anshikap1' 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 CLI like arg files and output formatting
```

12. Change directory to folder where PHP and YAML file is residing.

```
C:\Users\Anshika Sharma\AppData\Local\Google\Cloud SDK>dir
Volume in drive C is Windows-SSD
Volume Serial Number is BCA3-1502

Directory of C:\Users\Anshika Sharma\AppData\Local\Google\Cloud SDK

08/16/2024  11:11 PM    <DIR>          .
08/16/2024  10:45 PM    <DIR>          ..
08/16/2024  10:28 PM             85 app.yaml
08/16/2024  10:46 PM            281 cloud_env.bat
08/16/2024  10:47 PM    <DIR>          google-cloud-sdk
08/16/2024  10:32 PM             31 helloWorld.php
08/16/2024  10:51 PM              1 install_mode
06/12/2024  12:00 AM          1,150 supercloud-16x16.ico
08/16/2024  10:51 PM          63,591 uninstaller.exe
               6 File(s)          65,139 bytes
               3 Dir(s)  306,784,690,176 bytes free

C:\Users\Anshika Sharma\AppData\Local\Google\Cloud SDK>
```

13. Type `gcloud app deploy` and select region of Google Data Center where you want to deploy your app, press 6 and press Enter for `asia-south1`, i.e. Mumbai. Press Y to continue with deployment. Result will show URL to launch your GoogleApp. Alternatively you can type `gcloud app browse` to open your App in browser. Further you can make change in PHP code, or add

more PHP code and repeat step 13.

```
C:\WINDOWS\SYSTEM32\cmd x + v
C:\Users\Anshika Sharma\AppData\Local\Google\Cloud SDK>gcloud app deploy
You are creating an app for project [anshikap1].
WARNING: Creating an App Engine application for a project is irreversible and the region
cannot be changed. More information about regions is at
<https://cloud.google.com/appengine/docs/locations>.

Please choose the region where you want your App Engine application located:

[1] asia-east1 (supports standard and flexible)
[2] asia-east2 (supports standard and flexible and search_api)
[3] asia-northeast1 (supports standard and flexible and search_api)
[4] asia-northeast2 (supports standard and flexible and search_api)
[5] asia-northeast3 (supports standard and flexible and search_api)
[6] asia-south1 (supports standard and flexible and search_api)
[7] asia-southeast1 (supports standard and flexible)
[8] asia-southeast2 (supports standard and flexible and search_api)
[9] australia-southeast1 (supports standard and flexible and search_api)
[10] europe-central2 (supports standard and flexible)
[11] europe-west (supports standard and flexible and search_api)
[12] europe-west2 (supports standard and flexible and search_api)
[13] europe-west3 (supports standard and flexible and search_api)
[14] europe-west6 (supports standard and flexible and search_api)
[15] northamerica-northeast1 (supports standard and flexible and search_api)
[16] southamerica-east1 (supports standard and flexible and search_api)
[17] us-central (supports standard and flexible and search_api)
[18] us-east1 (supports standard and flexible and search_api)
[19] us-east4 (supports standard and flexible and search_api)
[20] us-west1 (supports standard and flexible)
[21] us-west2 (supports standard and flexible and search_api)
```

14. Your 2 files will get uploaded to Google Cloud Storage.