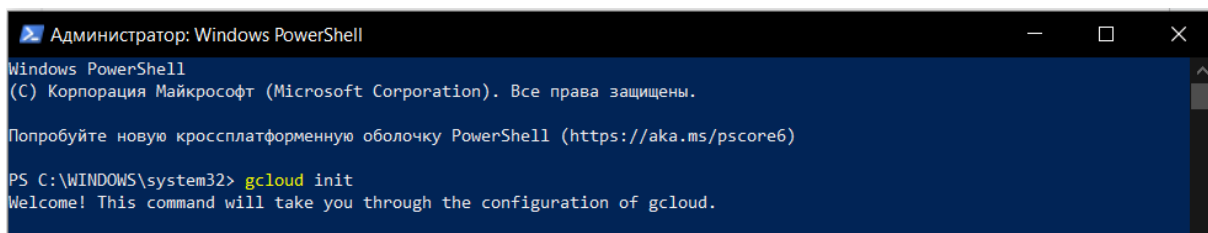The Google Cloud CLI works on Windows 8.1 and later and Windows Server 2012 and later.

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/rapi

& $env:Temp\GoogleCloudSDKInstaller.exe
```

Installing Google Cloud CLI installer

Type "gcloud init" and authenticate your account

Choose project

Name	ID	Billing account ↑
My First Project	civic-meridian-435815-u4	My Billing Account
My First Project	i-woodland-435815-e8	My Billing Account

Before setting region and zone Activate Billing Account on your project
Then choose convenient region and zone

What command did you use to authenticate with your Google account? gcloud init
How did you set the default project? In website
What information does the gcloud info command provide? ~All information~

```
Google Cloud SDK [492.0.0]

Platform: [Windows, x86_64] uname_result(system='Windows', node='DESKTOP-E916VFJ', release='10', version='10.0.19045', machine='AMD64')
Locale: ('Russian_Kazakhstan', '1251')
Python Version: [3.11.9 (tags/v3.11.9:de54cf5, Apr  2 2024, 10:12:12) [MSC v.1938 64 bit (AMD64)]]
Python Location: [C:\Users\aliha\AppData\Local\Google\Cloud SDK\google-cloud-sdk\platform\bundledpython\python.exe]
OpenSSL: [OpenSSL 3.0.13 30 Jan 2024]
Requests Version: [2.25.1]
urllib3 Version: [1.26.9]
Default CA certs file: [C:\Users\aliha\AppData\Local\Google\Cloud SDK\google-cloud-sdk\lib\third_party\certifi\cacert.pem]
Site Packages: [Disabled]

Installation Root: [C:\Users\aliha\AppData\Local\Google\Cloud SDK\google-cloud-sdk]
Installed Components:
  beta: [2024.09.06]
  bq: [2.1.8]
  core: [2024.09.06]
  gcloud-crc32c: [1.0.0]
  gsutil: [5.30]
System PATH: [C:\Users\aliha\AppData\Local\Google\Cloud SDK\google-cloud-sdk\bin\sdk;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wbem;C:\WINDOWS\System32\WindowsPowerShell\v1.0\;C:\WINDOWS\System32\OpenSSH\;C:\Program Files (x86)\
NVIDIA Corporation\PhysX\Common;C:\Program Files\NVIDIA Corporation\NVIDIA NvDLISR;C:\Program Files\dotnet\;C:\Users\aliha\AppData\Local\Programs\Python\Launcher\;C:\Users\aliha\AppData\Local\Microsoft\WindowsApps;C:\Users\aliha\AppData\
Local\Google\Cloud SDK\google-cloud-sdk\bin]
Python PATH: [C:\Users\aliha\AppData\Local\Google\Cloud SDK\google-cloud-sdk\lib\third_party;C:\Users\aliha\AppData\Local\Google\Cloud SDK\google-cloud-sdk\lib;C:\Users\aliha\AppData\Local\Google\Cloud SDK\google-cloud-sdk\platform\bundl
edpython\python311.zip;C:\Users\aliha\AppData\Local\Google\Cloud SDK\google-cloud-sdk\platform\bundledpython\DLLs;C:\Users\aliha\AppData\Local\Google\Cloud SDK\google-cloud-sdk\platform\bundledpython\Lib;C:\Users\aliha\AppData\Local\Goog
le\Cloud SDK\google-cloud-sdk\platform\bundledpython]
Cloud SDK on PATH: [True]
Kubectl on PATH: [False]

Installation Properties: [C:\Users\aliha\AppData\Local\Google\Cloud SDK\google-cloud-sdk\properties]
User Config Directory: [C:\Users\aliha\AppData\Roaming\gcloud]
Active Configuration Name: [default]
Active Configuration Path: [C:\Users\aliha\AppData\Roaming\gcloud\configurations\config_default]

Account: [alihanmurat11@gmail.com]
Project: [i-woodland-435815-e8]
Universe Domain: [googleapis.com]

Current Properties:
  [accessibility]
    screen_reader: [False] (property file)
  [core]
    account: [alihanmurat11@gmail.com] (property file)
    disable_usage_reporting: [True] (property file)
    project: [i-woodland-435815-e8] (property file)

Logs Directory: [C:\Users\aliha\AppData\Roaming\gcloud\logs]
Last Log File: [C:\Users\aliha\AppData\Roaming\gcloud\logs\2024.09.16\21.59.39.475521.log]

git: [NOT AVAILABLE]
ssh: [OpenSSH_for_Windows_8.1p1, LibreSSL 3.0.2]
```

```
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to i-woodland-435815-e8.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ gcloud config list
[accessibility]
screen_reader = True
[component_manager]
disable_update_check = True
[compute]
gce_metadata_read_timeout_sec = 30
[core]
account = alihanmurat11@gmail.com
disable_usage_reporting = False
project = i-woodland-435815-e8
[metrics]
environment = devshell
```

```
Your active configuration is: [cloudshell-11001]
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ mkdir gcp-intro
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ cd gcp-intro
alihanmurat11@cloudshell:~/gcp-intro (i-woodland-435815-e8)$ touch READ.md
alihanmurat11@cloudshell:~/gcp-intro (i-woodland-435815-e8)$ edit READ.md
alihanmurat11@cloudshell:~/gcp-intro (i-woodland-435815-e8)$ 
```

What is the default home directory in Cloud Shell? /home/username
What tools are pre-installed in Cloud Shell? Programming Languages, SQLs, gcloud, kubectl
How can you open the built-in code editor in Cloud Shell? edit <name>

```
C:\Users\aliha\AppData\Local\Google\Cloud SDK>gcloud projects list
PROJECT_ID              NAME              PROJECT_NUMBER
civic-meridian-435815-u4  My First Project  593046861230
i-woodland-435815-e8      My First Project  102521120853

C:\Users\aliha\AppData\Local\Google\Cloud SDK>gcloud projects create my-first-gcp-project-123123 --name="My First GCP Project"
Create in progress for [https://cloudresourcemanager.googleapis.com/v1/projects/my-first-gcp-project-123123].
Waiting for [operations/cp.9030786417613902144] to finish...done.
Enabling service [cloudapis.googleapis.com] on project [my-first-gcp-project-123123]...
Operation "operations/acat.p2-655497289337-fcd70715-d753-40e0-8c21-ca3e83d3edc6" finished successfully.

C:\Users\aliha\AppData\Local\Google\Cloud SDK>gcloud config set project my-first-gcp-project-123123
Updated property [core/project].

C:\Users\aliha\AppData\Local\Google\Cloud SDK>gcloud projects describe my-first-gcp-project-123123
createTime: '2024-09-16T20:48:20.214195Z'
lifecycleState: ACTIVE
name: My First GCP Project
projectId: my-first-gcp-project-123123
projectNumber: '655497289337'

C:\Users\aliha\AppData\Local\Google\Cloud SDK>gcloud projects delete my-first-gcp-project-123123
Your project will be deleted.

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

Deleted [https://cloudresourcemanager.googleapis.com/v1/projects/my-first-gcp-project-123123].

You can undo this operation for a limited period by running the command below.
    $ gcloud projects undelete my-first-gcp-project-123123

See https://cloud.google.com/resource-manager/docs/creating-managing-projects for information on shutting down projects.

C:\Users\aliha\AppData\Local\Google\Cloud SDK>
```

How do you list all projects associated with your account? gcloud projects list
What command is used to set a default project? gcloud config set project PROJECT_ID
How do you describe project metadata? gcloud projects describe PROJECT_ID

```
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to i-woodland-435815-e8.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ pwd
/home/alihanmurat11
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ mkdir myproject
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ mkdir myproject/src
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ mkdir myproject/tests
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ mkdir myproject/docs
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ tree myproject
-bash: tree: command not found
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ cd myproject/src
alihanmurat11@cloudshell:~/myproject/src (i-woodland-435815-e8)$ touch main.py
alihanmurat11@cloudshell:~/myproject/src (i-woodland-435815-e8)$ nano main.py
alihanmurat11@cloudshell:~/myproject/src (i-woodland-435815-e8)$ cd ..
alihanmurat11@cloudshell:~/myproject (i-woodland-435815-e8)$ cd tests
alihanmurat11@cloudshell:~/myproject/src (i-woodland-435815-e8)$ touch main.py
alihanmurat11@cloudshell:~/myproject/src (i-woodland-435815-e8)$ nano main.py
alihanmurat11@cloudshell:~/myproject/src (i-woodland-435815-e8)$ cd ..
alihanmurat11@cloudshell:~/myproject (i-woodland-435815-e8)$ cd tests
alihanmurat11@cloudshell:~/myproject/tests (i-woodland-435815-e8)$ touch testmain.py
alihanmurat11@cloudshell:~/myproject/tests (i-woodland-435815-e8)$ nano testmain.py
alihanmurat11@cloudshell:~/myproject/tests (i-woodland-435815-e8)$ cd ..
alihanmurat11@cloudshell:~/myproject (i-woodland-435815-e8)$ cd docs
alihanmurat11@cloudshell:~/myproject/docs (i-woodland-435815-e8)$ touch READ.me
alihanmurat11@cloudshell:~/myproject/docs (i-woodland-435815-e8)$ nano READ.me
alihanmurat11@cloudshell:~/myproject/docs (i-woodland-435815-e8)$ cd ..
alihanmurat11@cloudshell:~/myproject (i-woodland-435815-e8)$ cat myproject/src/main.py
cat: myproject/src/main.py: No such file or directory
alihanmurat11@cloudshell:~/myproject (i-woodland-435815-e8)$ cat myproject
cat: myproject: No such file or directory
alihanmurat11@cloudshell:~/myproject (i-woodland-435815-e8)$ cd myproject/src
```

```
alihanmurat11@cloudshell:~/myproject (i-woodland-435815-e8)$ cd src
alihanmurat11@cloudshell:~/myproject/src (i-woodland-435815-e8)$ ^C
alihanmurat11@cloudshell:~/myproject/src (i-woodland-435815-e8)$ cat myproject/src/main.py
cat: myproject/src/main.py: No such file or directory
alihanmurat11@cloudshell:~/myproject/src (i-woodland-435815-e8)$ cat main.py
print("Helo, World!")

alihanmurat11@cloudshell:~/myproject/src (i-woodland-435815-e8)$ cd ..
alihanmurat11@cloudshell:~/myproject (i-woodland-435815-e8)$ cd tests
alihanmurat11@cloudshell:~/myproject/tests (i-woodland-435815-e8)$ cat testmain.py
print("Hello, World!")

alihanmurat11@cloudshell:~/myproject/tests (i-woodland-435815-e8)$ cd ..
alihanmurat11@cloudshell:~/myproject (i-woodland-435815-e8)$ cd docs
alihanmurat11@cloudshell:~/myproject/docs (i-woodland-435815-e8)$ cat READ.me
Hello, World! Test File
alihanmurat11@cloudshell:~/myproject/docs (i-woodland-435815-e8)$ cd ..
alihanmurat11@cloudshell:~/myproject (i-woodland-435815-e8)$ rm myproject/src/main.py
rm: cannot remove 'myproject/src/main.py': No such file or directory
alihanmurat11@cloudshell:~/myproject (i-woodland-435815-e8)$ cd ..
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ rm myproject/src/main.py
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ gcloud compute project-info add-metadata \
   --metadata google-compute-default-region=me-central1,google-compute-default-zone=me-central1-a
Updated [https://www.googleapis.com/compute/v1/projects/i-woodland-435815-e8].
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ gsutil mb -l me-central1 gs://My_Project/
Creating gs://My_Project/...
BadRequestException: 400 Invalid bucket name: 'My_Project'
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ gsutil mb -l me-central1 gs://my-project-bucket-123/
Creating gs://my-project-bucket-123/...
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ gsutil cp myproject/docs/README.md gs://my-project-bucket-123/
CommandException: No URLs matched: myproject/docs/README.md
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ gsutil cp myproject/docs/READ.me gs://my-project-bucket-123/
Copying file://myproject/docs/READ.me [Content-Type=application/x-troff-me]...
- [1 files][   24.0 B/   24.0 B]
Operation completed over 1 objects/24.0 B.
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$ gsutil ls gs://my-project-bucket-123/
gs://my-project-bucket-123/READ.me
alihanmurat11@cloudshell:~ (i-woodland-435815-e8)$
```

What command did you use to create the directory structure? mkdir
How did you upload a file to a Cloud Storage bucket? gsutil cp myproject/docs/README.md
gs://bucket-name/
How can you list the contents of a Cloud Storage bucket? gsutil ls gs://bucket-name/

```
alihanmurat11@cloudshell:~ (my-new-project-123-123)$ mkdir  gcp-intro
alihanmurat11@cloudshell:~ (my-new-project-123-123)$ cd gcp-intro
alihanmurat11@cloudshell:~/gcp-intro (my-new-project-123-123)$ nano setup.sh
alihanmurat11@cloudshell:~/gcp-intro (my-new-project-123-123)$ chmod +x setup.sh
alihanmurat11@cloudshell:~/gcp-intro (my-new-project-123-123)$ ./setup.sh
./setup.sh: line 2: myproject/text.txt: No such file or directory
WARNING: [alihanmurat11@gmail.com] does not have permission to access projects instance [my-project-cloud-shell123] (or it may not exist): The caller does not have permission. This command is au
thenticated as alihanmurat11@gmail.com which is the active account specified by the [core/account] property
Are you sure you wish to set property [core/project] to my-project-cloud-shell123?

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

Updated property [core/project].
alihanmurat11@cloudshell:~/gcp-intro (my-project-cloud-shell123)$ nano setup.sh
alihanmurat11@cloudshell:~/gcp-intro (my-project-cloud-shell123)$ ./setup.sh
WARNING: [alihanmurat11@gmail.com] does not have permission to access projects instance [my-project-cloud-shell123] (or it may not exist): The caller does not have permission. This command is au
thenticated as alihanmurat11@gmail.com which is the active account specified by the [core/account] property
Are you sure you wish to set property [core/project] to my-project-cloud-shell123?

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

Updated property [core/project].
alihanmurat11@cloudshell:~/gcp-intro (my-project-cloud-shell123)$ ./setup.sh
WARNING: [alihanmurat11@gmail.com] does not have permission to access projects instance [my-project-cloud-shell123] (or it may not exist): The caller does not have permission. This command is au
thenticated as alihanmurat11@gmail.com which is the active account specified by the [core/account] property
Are you sure you wish to set property [core/project] to my-project-cloud-shell123?

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

Updated property [core/project].
alihanmurat11@cloudshell:~/gcp-intro (my-project-cloud-shell123)$ ls -l myproject_123123/
total 4
-rw-rw-r-- 1 alihanmurat11 alihanmurat11 21 Sep 16 21:31 text.txt
alihanmurat11@cloudshell:~/gcp-intro (my-project-cloud-shell123)$ cat myproject_123123/text.txt
This is a text file.
alihanmurat11@cloudshell:~/gcp-intro (my-project-cloud-shell123)$ gcloud config get-value project
Your active configuration is: [cloudshell-12086]
my-project-cloud-shell123
alihanmurat11@cloudshell:~/gcp-intro (my-project-cloud-shell123)$
```

What command did you use to make the script executable? chmod +x setup.sh

How did you ensure the script was executed correctly? ./setup.sh

                                               ls -l project_name

What steps did your script automate? mkdir myproject_123123

                                 echo "Text" > myproject_123123/text.txt

                                 cloud config set project PROJECT_ID