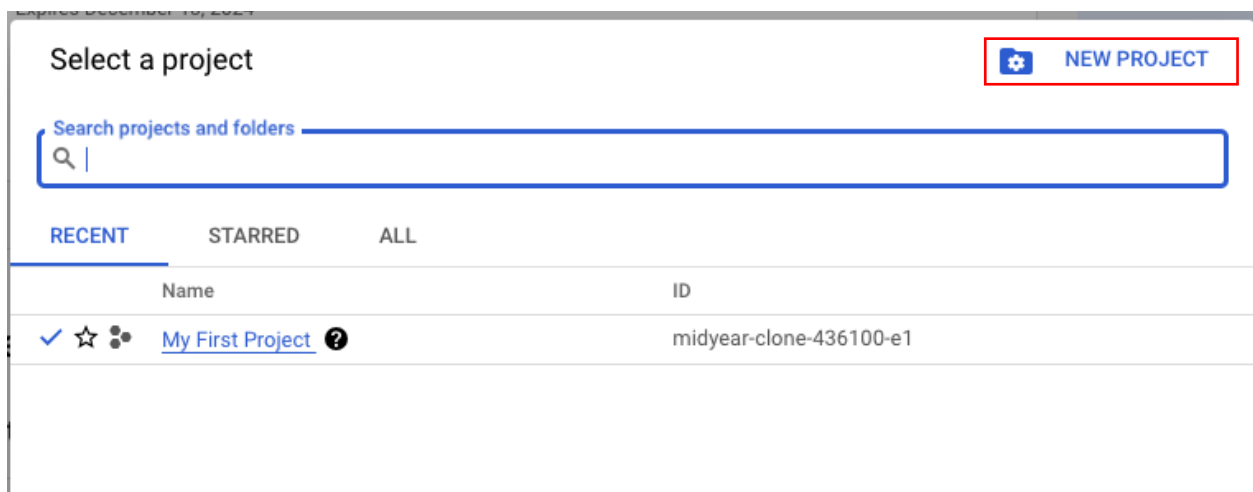
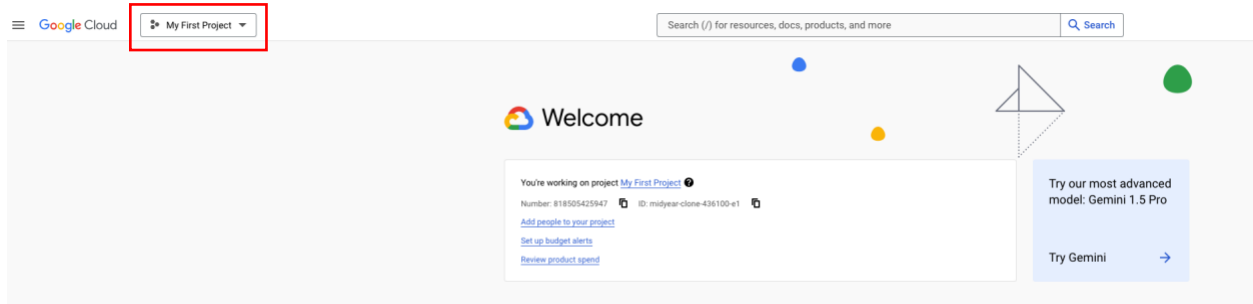


How to use GCP

1. Create a google account
2. Start a new project



New Project



You have 11 projects remaining in your quota. Request an increase or delete projects. [Learn more](#)

[MANAGE QUOTAS](#)

Project name *
Amex-default-predict



Project ID: amex-default-predict-436100. It cannot be changed later. [EDIT](#)

Location *
No organization

[BROWSE](#)

Parent organization or folder

CREATE

CANCEL

Click top left corner to select a project.

In the pop up window, click NEW PROJECT.

Give a project name and click CREATE.

Click top left corner to select the project you just created.

3. Upload data to Cloud Storage

Products



Create a VM
Compute Engine



Train and host ML
models
Vertex AI



Create a database
Cloud SQL



Analyze and manage
data
BigQuery



Create a storage bucket
Cloud Storage



Run containerized apps
Cloud Run



Create a containerized
app
Kubernetes Engine



Embed maps
Google Maps Platform




Convert text to speech
Text-to-Speech API



Convert speech to text
Speech-to-Text API

i Review the soft delete settings on your buckets. Billing for soft deleted objects will begin on September 1st.

SecurityNew






Introducing the folder browser and folder permissions (using Managed Folders)

The object browser is now enhanced with a folder browser allowing you to easily manage and browse through folders inside your buckets. Using the folder browser you can edit the access for your folders, allowing you to manage access (including object listing) to folders and the objects inside them, without granting access to your whole bucket.

[LEARN MORE](#)

X

 Filter Filter buckets

| <input type="checkbox"/> | Name  | Created | Location type | Location | Default storage class  | Last modified | Public access  |
|--------------------------|--|---------|---------------|----------|---|---------------|---|
|--------------------------|--|---------|---------------|----------|---|---------------|---|

No rows to display

• Get Started

Pick a globally unique, permanent name. [Naming guidelines](#)

amex-data-bucket

Tip: Don't include any sensitive information

Optimize storage for data-intensive workloads



Labels (optional)



[CONTINUE](#)

• Choose where to store your data

Location: us (multiple regions in United States)

Location type: Multi-region

• Choose a storage class for your data

Default storage class: Standard

• Choose how to control access to objects

Public access prevention: On

Access control: Uniform

• Choose how to protect object data

Soft delete policy: Default

Object versioning: Disabled

Bucket retention policy: Disabled

Object retention: Disabled

Encryption type: Google-managed

[CREATE](#)

[CANCEL](#)

Good to know

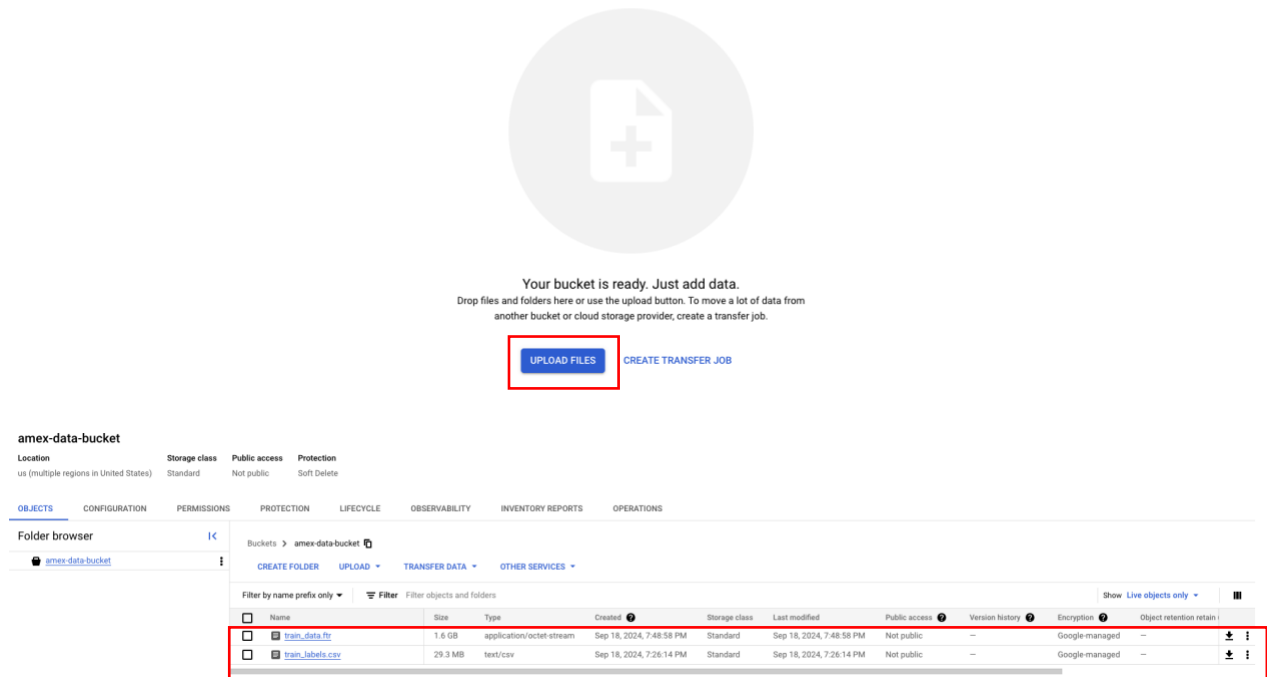
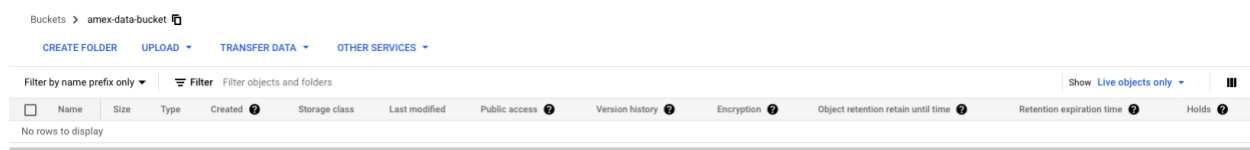
Location pricing

Storage rates vary depending on the storage class of your data and location of your bucket. [Pricing details](#)

Current configuration: Multi-region / Standard

| Item | Cost |
|--|------------------------|
| us (multiple regions in United States) | \$0.026 per GB-month |
| With default replication | \$0.020 per GB written |

ESTIMATE YOUR MONTHLY COST



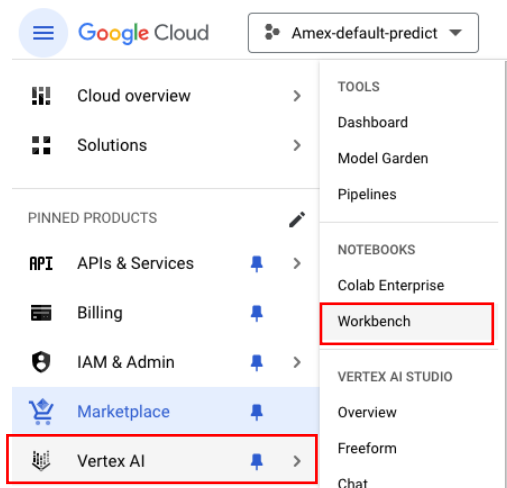
Click Create a storage bucket.

Top left corner to click CREATE.

Give your bucket a name, click CREATE.

Click UPLOAD FILES to upload your data.

4. Create a Jupyter Notebook using Workbench





Notebooks API

[Google Enterprise API](#)

Notebooks API is used to manage notebook resources in Google Cloud.

ENABLE

TRY THIS API [↗](#)

OVERVIEW

DOCUMENTATION

RELATED PRODUCTS

Workbench

[+ CREATE NEW](#)

[REFRESH](#)

INSTANCES

EXECUTIONS

SCHEDULES

View:

INSTANCES

USER-MANAGED NOTEBOOKS

MANAGED NOTEBOOKS

Workbench Instances have JupyterLab 3 pre-installed and are configured with GPU-enabled machine learning frameworks. [Learn more](#) [↗](#)

Filter



Instance name [↑](#)

Zone

Auto upgrade

Version

Machine Type

New instance



Name *

instance-20240918-222433

Must start with a letter followed by up to 47 lowercase letters, numbers, or hyphens (-) and cannot end with a hyphen

Region *

us-central1 (Iowa)



Zone *

us-central1-a



☐ Attach 1 NVIDIA T4 GPU

☒ Enable Dataproc Serverless Interactive Sessions

Enable access to Dataproc Spark kernels

☒ Network in this project

☐ Shared network

Network

default



Subnetwork *

default(10.128.0.0/20)



Instance properties

Machine type

e2-standard-4

Data disk

100 GB Balanced persistent disk

Permission

Compute Engine default service account

Estimated cost [?](#)

\$145.20 monthly, \$0.20 hourly

ADVANCED OPTIONS

CANCEL

CREATE

Create instance

- Details
- Environment
- Machine type**
- Disks
- Networking
- IAM and security
- System health

Machine type

☒ General purpose ☐ GPUs

Machine types for common workloads, optimized for cost and flexibility

| Series | Description | vCPUs | Memory |
|-------------------------------------|--------------------------------|---------|--------------|
| <input checked="" type="radio"/> E2 | Low cost, day-to-day computing | 2 - 32 | 4 - 128 GB |
| <input type="radio"/> N2 | Balanced price & performance | 2 - 128 | 4 - 864 GB |
| <input type="radio"/> N2D | Balanced price & performance | 2 - 224 | 4 - 896 GB |
| <input type="radio"/> N1 | Balanced price & performance | 2 - 32 | 7.5 - 208 GB |

Pricing summary

\$145.20 monthly estimate

That's about \$0.199 hourly

Pay for what you use: No upfront costs and per second billing

Networking cost also applies. [Learn more](#)

[DETAILS](#)

Machine type

Standard

- e2-standard-2
2 vCPU (1 core), 8 GB memory
- e2-standard-4
4 vCPU (2 core), 16 GB memory**
- e2-standard-8
8 vCPU (4 core), 32 GB memory
- e2-standard-16
16 vCPU (8 core), 64 GB memory**
- e2-standard-32

level malware. Not supported for instances with GPUs.

☒ Virtual Trusted Platform Module (vTPM)

Validates guest VM pre-boot and boot integrity, and offers key generation and protection.

☒ Integrity monitoring

Monitors and verifies runtime boot integrity using Stackdriver. Requires vTPM.

Idle shutdown

☒ Enable Idle Shutdown

Time of inactivity before shutdown (Minutes) *

180

Range: 10 minutes to 1 day (1,440 minutes)

[BACK](#)

[CONTINUE](#)

Workbench [CREATE NEW](#) [REFRESH](#) [LEARN](#)

[INSTANCES](#) [EXECUTIONS](#) [SCHEDULES](#)

View: [INSTANCES](#) [USER-MANAGED NOTEBOOKS](#) [MANAGED NOTEBOOKS](#)

Workbench Instances have JupyterLab 3 pre-installed and are configured with GPU-enabled machine learning frameworks. [Learn more](#)

Filter

| Instance name | Zone | Auto upgrade | Version | Machine Type | GPUs | Owner | Created | Labels |
|--|---------------|--------------|---------|--|------|---|--------------------------|---|
| instance-20240918-225830 | us-central1-a | — | M134 | Efficient Instance: 8 vCPUs, 32 GB RAM | None | 430789530248-compute@developer.gservicesaccount.com | Sep 18, 2024 10:58:48 PM | consumerp...:amer-defa... consumerp...:4307895302... notebooks...:workbench... resource-n...:instance-2... |

Click left top corner hamburger icon, select Vertex AI, select Workbench.

Click ENABLE to turn on Notebooks.

Click CREATE NEW, and then click ADVANCED OPTIONS to select machine types.

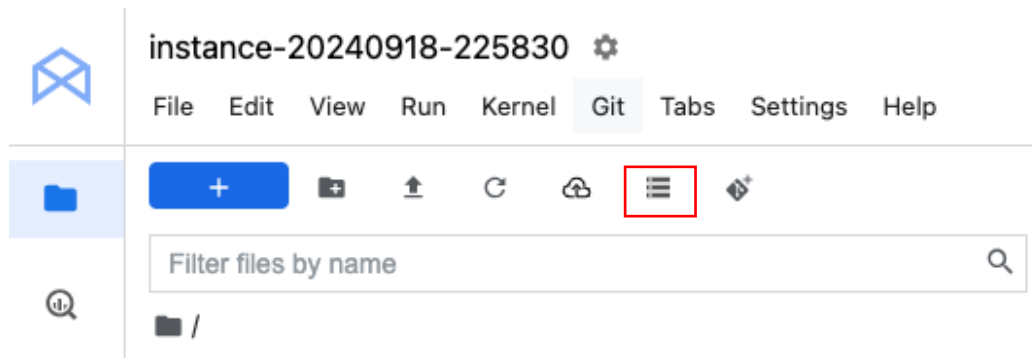
Select a machine type with higher specs. For example, e2-standard-16 with 64 GB memory.

Click CREATE to start creating.

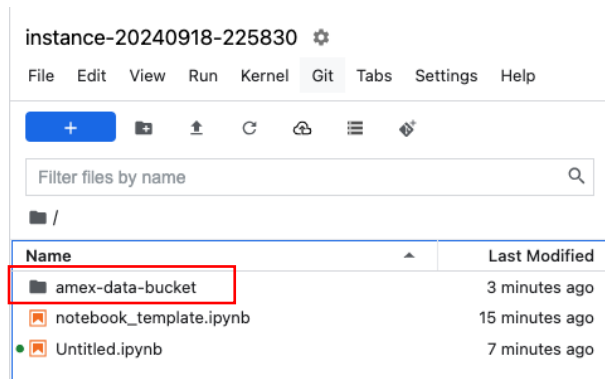
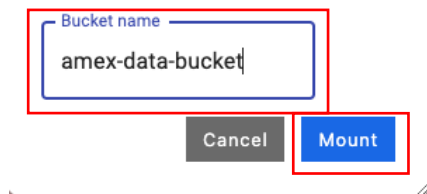
Click OPEN JUPYTERLAB to start coding.

Delete the instance if you don't use it.

5. Mount bucket to Jupyterlab



Mount a bucket



In jupyterlab, click the left top corner hamburger icon.

Copy your bucket name, click Mount.

The bucket will show as a folder in your Jupyterlab.