

Guideline for redeeming Google Cloud Platform credits CS-502

Omar El Malki (CS-502 teaching team)
Inspired by a similar guideline by Silin Gao (CS-552 teaching team)

Redeeming the coupon (1)

CS-502 Student Coupon Retrieval Link:

<https://gcp.secure.force.com/GCPEDU?cid=P12BHM%2BG56zkA7NL5wx7As99o3%2BIs3HHv3EDpaMoVsU5c0cYHrGUKe%2BXxdkjYsJM/>

1. Open the link in your browser

2. Fill your name and EPFL email

Thank you for your interest in Google Cloud Platform Education Grants. Please fill out the form below to receive a coupon code for credit to use on Google Cloud Platform.

First Name

Omar

Last Name

El Malki

School Email

omar.elmalki

@epfl.ch

If you do not see your domain listed, please contact your course instructor: maria.brbic@epfl.ch

By clicking "Submit" below, you agree that we may share the following information with your educational institution and course instructor (maria.brbic@epfl.ch): (1) personal information that you provide to us on this form and (2) information regarding your use of the coupon and Google Cloud Platform products.

Submit

3. Submit

1. Verify your EPFL email

Redeeming the coupon (2)

Dear Omar,

Thank you for your interest in downloading a Google Cloud coupon code.
Please click on this [link](#) to verify your email address and a code will be sent to your email account.

Instructor Name: Maria Brbic

Email Address: maria.brbic@epfl.ch

School: Ecole polytechnique fédérale de Lausanne (EPFL)

Course/project: Deep Learning in Biomedicine

If you have any questions, please contact your course instructor as listed above.

Thanks,
Google Cloud Education Programs Team

Cloud Platform Education Grants

Use credits provided to you via the Google Cloud Platform Education Grants program to access Google Cloud Platform. Get what you need to build and run your apps, websites and services.

Email Verified

Your email has been verified and your Google Cloud Platform coupon code has been sent to your email address.

[Privacy Policy](#)

2. **Click** on the redeem link but do not validate anything yet. Make sure to open it in your browser under your **personal Google account**

Dear Omar,

Here is your Google Cloud Coupon Code: [REDACTED]

Click [\[here\]](#) to redeem.

Course/Project Information

Instructor Name: Maria Brbic

Email Address: maria.brbic@epfl.ch

School: Ecole polytechnique fédérale de Lausanne (EPFL)

Course/project: Deep Learning in Biomedicine

Activation Date: 9/27/2023

Redeem By: 1/27/2024

Coupon Valid Through: 9/27/2024

If you have any questions, please contact your course instructor as listed above.

Thanks,
Google Cloud Education Programs Team

Redeeming the coupon (3)

GCP credit application

Fill in the following information below to apply GCP credits to your account listed below.

First name *
Omar

Surname *
El Malki

Account email
[redacted]

Credits will be applied to this account. If you'd like to apply credits to a different account, specify your preference [here](#).

Coupon code *

Terms and conditions

The following terms and conditions apply to the credit you received for Google Cloud products (the "Credit(s)").

The Credit is subject to valid registration and acceptance of an account with Google Cloud and satisfaction of any applicable eligibility requirements including the Google Cloud Platform [Terms of Service](#). You will be responsible for all usage in excess of the Credit and you may not be notified once the Credit is exhausted. The Credit is non-transferable and may not be sold or bartered. The Credit is valid for a limited time only and expires on the date indicated when you receive the applicable Credit code or on such date as designated by Google (in which case the earlier date applies). You may not use the Credit to engage in mining cryptocurrency unless you have obtained Google's written consent, which consent may be revoked by Google in its sole discretion at any time. Google reserves the right to cancel the Credit or change these terms at any time. You are responsible for determining the applicable tax treatment of receiving the Credits and for paying all applicable taxes. Offer void where prohibited by law.

Except for graduate or work-study students participating in an event in their personal capacities, if you are a government employee, including an employee of a public university, public educational institution or state-owned enterprise, you may not use (and you are ineligible to receive) any Credits.

ACCEPT AND CONTINUE

* Indicates required

1. Open the link under your **personal account**

2. Fill coupon code

3. Confirm

Redeeming the coupon (4)

Start your free trial with \$300 in credit. Don't worry – you won't be charged if you run out of credit. [Learn more](#)

DISMISS START FREE

Google Cloud Search (/) for resources, docs, products and more Search

Billing Overview

Billing account
Billing Account for Education

BILLING ACCOUNT OVERVIEW

View report

Cost trend
1 September 2022 – 30 September 2023

Average monthly total cost
US\$0.00

Cost management

- Reports
- Cost table
- Cost breakdown
- Budgets & alerts
- Billing export

Cost optimisation

- FinOps hub
- Committed-use discounts (C...
- CUD analysis
- Pricing
- Cost estimation

Billing management

- Account management

Top projects
1 September 2022 – 30 September 2023

\$1

Credit successfully applied

Billing health checks

Take a look at your account health results to avoid common billing-related issues and adopt our best practice recommendations. [Learn more](#)

0 2 0

View all health checks

Credits

US\$50.00

Remaining credits
Out of US\$50.00

Remaining credits

Deep Learning in Biomedicine \$50.00

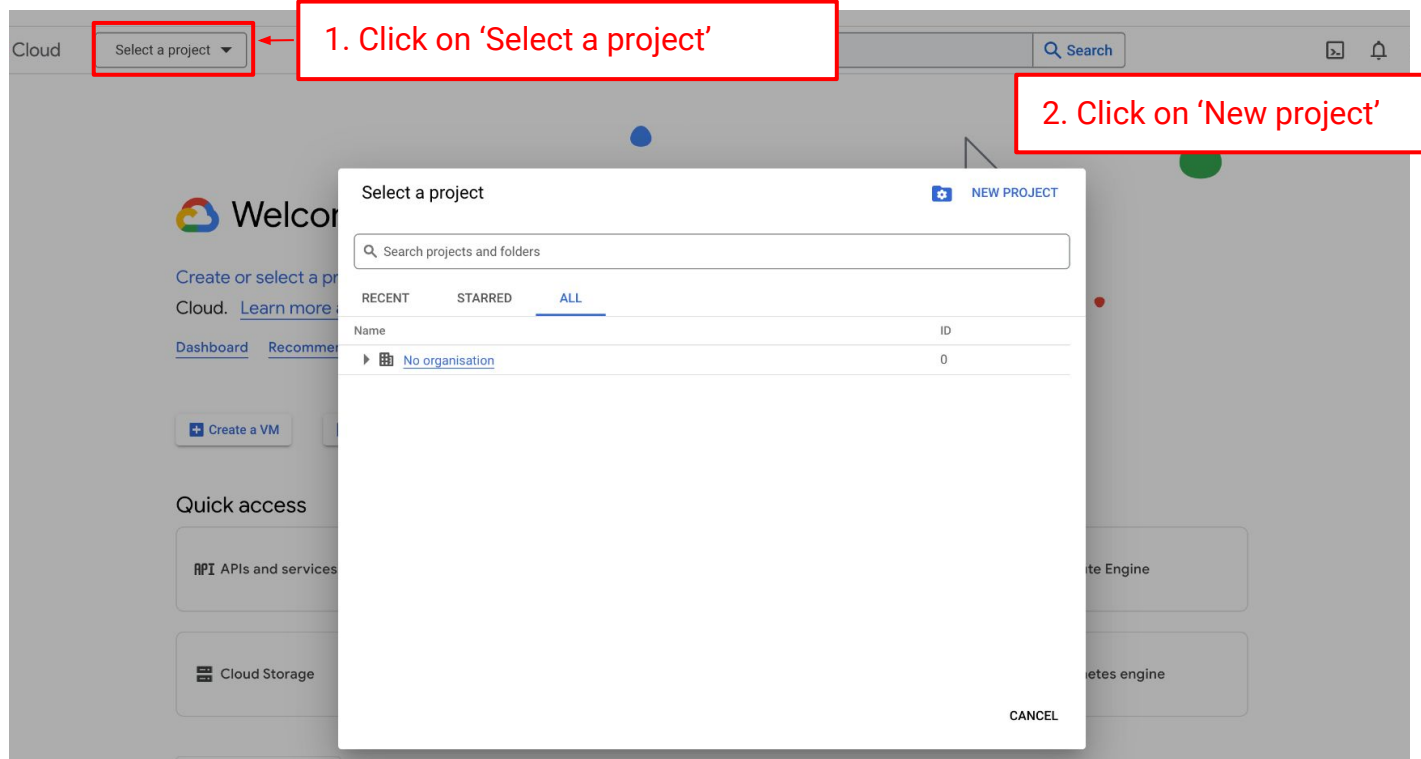
Credit details

Enjoy your free credits
on the Google Cloud
Platform !


Getting started with Google Cloud Platform

Creating a new project (1)

Access the console : <https://console.cloud.google.com/>




Creating a new project (2)

 Google Cloud

Search (/) for r

New Project

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

[MANAGE QUOTAS](#)

Project name *


dl-bio

1. Choose project name

?

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

Location *

 No organisation [BROWSE](#)

Parent organisation or folder

CREATE

CANCEL

2. Click on 'Create'

Creating a new project (3)

The screenshot shows the Google Cloud console interface. At the top, the 'Google Cloud' logo is on the left, and a search bar is on the right. Below the logo, there is a 'Select a project' dropdown menu. A red box highlights this dropdown, and a red arrow points to it from a text box that says '1. Click on 'Select a project''. Below the dropdown, the main content area shows a 'Welcome' message and a 'Create or select a project' link. A 'Select a project' dialog box is open in the foreground. It has a search bar labeled 'Search projects and folders' and three tabs: 'RECENT', 'STARRED', and 'ALL'. Under the 'RECENT' tab, there is a table with a header 'Name' and a row with a star icon, a project icon, and the text 'dl-bio'. A red box highlights this row, and a red arrow points to it from a text box that says '2. Select the project you just created'.

Google Cloud

Select a project

1. Click on 'Select a project'

Search projects and folders

NEW PROJECT

RECENT STARRED ALL

Name

☆ dl-bio


2. Select the project you just created

Create a VM

Quick access


API APIs and services

Enable GPUs (1)


 dl-bio

Search (/) for resources, docs, products and more

Search

 dl-bio


Product details

 **Welcome**

You're working in dl-bio

Project number: 238657690958 Project ID: dl-bio

[Recommendations](#)

 **Compute Engine API**

[Google Enterprise API](#)

Compute Engine

Click here

And then here

Create a VM

Run a query in BigQuery

CI

ENABLE

TRY THIS API

Quick access

APIs and services

IAM and admin

Billing

Compute Engine

Cloud Storage


BigQuery

VPC network

Kubernetes engine


View all products

Enable GPUs (2)

 dl-bio



Search (/) for resources, docs, products and more

Search



Welcome


You're working in [dl-bio](#)


Project number: 238657690958  Project ID: dl-bio 


[Dashboard](#) [Recommendations](#)


[+ Create a VM](#) [+ Run a query in BigQuery](#) [+ Create a GKE cluster](#) [+ Create a storage bucket](#)


Quick access


 **API** APIs and services


 **IAM and admin**


 **Billing**


 **Compute Engine**

 **Cloud Storage**

 **BigQuery**

 **VPC network**

 **Kubernetes engine**

 [View all products](#)

Enable GPUs (3)

Google Cloud

dl-bio

Search (/) for resources, docs, products and more

Search

IAM and admin

Policy troubleshooter

Policy analyser

Organisation policies

Service accounts

Workload Identity Federat...

Workforce identity federat...

Labels

Tags

Settings

Privacy and security

Identity-Aware Proxy

Roles

Audit logs

Essential contacts

Asset inventory

Quotas

Groups

API/Service details

DISABLE API

2. Click on 'Edit Quotas'

EDIT QUOTAS

Set up quota alerts

Get alerted if a quota is close to reaching its maximum. Click on ⋮ in a row to get started or click 'Learn more' to view documentation.

LEARN MORE

Current usage > 90%
0
[View quotas](#)

7-day peak usage > 90%
0
[View quotas](#)

All quotas
10,513

Filter Quota : GPUs (all regions) Enter property name or value

<input checked="" type="checkbox"/>	Quota	Dimensions (e.g. location)	Limit	Current usage percentage	Current usage
<input checked="" type="checkbox"/>	GPUs (all regions)		0	0%	0

1. Filter by typing Quota : GPUs (all regions) and select it

Enable GPUs (4)

Step 1/2

Quota changes

Expand each service card to change individual quotas.

Edit quota

Compute Engine API

Quota: GPUs (all regions)

Current limit: 0

Enter a new quota limit. A limit above 0 will require approval from your service provider.

New limit *

1

Request description *

Academic use for course project

Your description will be sent to your service provider and is used to evaluate your request for growth plans, regional growth plans, and regional growth plans.

DONE

NEXT

1. Increase limit from 0 to 1

2. Fill request description

3. Click on next

Step 2/2

Contact details

These details will be sent to the approvers while reviewing quota change request.

Name *

Omar El Malki

Email *

@gmail.com

Phone

SUBMIT REQUEST

BACK


4. Submit request (you may receive a verification email)

5. After a few minutes, the limit should have increased

Filter Quota : GPUs (all regions) Enter property name or value


	Service	Quota	Dimensions (e.g. location)	Limit	Current usage percentage	Current usage	
<input type="checkbox"/>	Compute Engine API	GPUs (all regions)		1	0%	0	

Create a Virtual Machine (VM) Instance (1)

 dl-bio

Search (/) for resources, docs, products and more


Search


 **Welcome**


You're working in **dl-bio**


Project number: 238657690958 Project ID: dl-bio

[Dashboard](#) [Recommendations](#)


 Create a VM


 Run a query in BigQuery


 Create a GKE cluster


 Create a storage bucket


Quick access


 APIs and services


 IAM and admin


 Billing


 Compute Engine

 Cloud Storage

 BigQuery

 VPC network

 Kubernetes engine

 View all products

Create a VM instance (2)

Name *
test-instance

MANAGE TAGS AND LABELS

Region *
europe-west1 (Belgium)

Region is permanent

Zone *
europe-west1-b

Zone is permanent

Machine configuration

Try the new H3 machine series, optimised for HPC.

TRY NOW

General purpose

Compute-optimised

NEW

Memory-optimised

✓ GPUs

Graphics processing units (GPUs) accelerate specific workloads on your instances such as machine learning and data processing. [Learn More](#)

GPU type
NVIDIA T4

Number of GPUs
1

☐ Enable Virtual Workstation (NVIDIA GRID)

Series	Description	vCPUs	Memory	Platform
N1	Balanced price and performance	1 - 96	1.8 – 624 GB	Intel Skylake

Machine type

Choose a machine type with preset amounts of vCPUs and memory that suit most workloads. Or, you can create a custom machine for your workload's particular needs. [Learn more](#)

PRESET CUSTOM

n1-standard-1 (1 vCPU, 3.75 GB memory)

CREATE

CANCEL

EQUIVALENT CODE

Monthly estimate

US\$208.05

That's about US\$0.29 hourly

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

Item	Monthly estimate
1 vCPU + 3.75 GB memory	US\$38.14
1 NVIDIA T4	US\$255.50
25 GB balanced persistent disk	US\$2.50
Use discount	-US\$88.09
Total	US\$208.05

[Compute Engine pricing](#)

LESS

1. This configuration should allow ~150 hours of GPU usage with your USD 50 credits.

You can use more powerful or a larger number of GPUs but it will reduce the usage time limit.

We do not provide extra credits.

2. Depending on the dataset you work with, you may need to increase the available memory to load it, this is how to do it. (You can increase it after creating the instance as well).

Machine type

Choose a machine type with preset amounts of vCPUs and memory that suit most workloads. Or, you can create a custom machine for your workload's particular needs. [Learn more](#)

PRESET CUSTOM

Creating a custom machine incurs additional costs

Cores
1

Memory
3.75

☒ Extend Memory


4 vCPU

(2 core)

32 GB

Create a VM instance (3)

Boot disk ?

Name	instance-2
Type	New balanced persistent disk
Size	10 GB
Licence type ?	Free
Image	 Debian GNU/Linux 11 (bullseye)



The selected image requires that you install an NVIDIA CUDA stack manually. To skip manual setup, click 'Switch image' below to use a GPU-optimised Debian OS image with CUDA support at no additional cost.

[SWITCH IMAGE](#)

[CHANGE](#)

1. Feel free to change the boot disk options to your preferences, it should not make any difference

The disk size can be increased later

2. This is the recommended setup we used to prepare the project

Operating system

Ubuntu

Version *

Ubuntu 20.04 LTS

x86/64, amd64 focal image built on 2023-09-18

Boot disk type *

Balanced persistent disk

[COMPARE DISK TYPES](#)

Size (GB) *

25

Provision between 10 and 65536 GB

[SHOW ADVANCED CONFIGURATION](#)

[SELECT](#)

[CANCEL](#)

Create a VM instance (4)

1. Sometimes, there may not be a GPU available in your region

2. Feel free to create another one in another region until you can successfully create an instance

The screenshot shows the Google Cloud Platform 'VM instances' page. A modal dialog is open, displaying an error message: 'A n1-standard-1 VM instance with 1 nvidia-tesla-t4 accelerator(s) is currently unavailable in the europe-west1-b zone. Alternatively, you can try your request again with a different VM hardware configuration or at a later time. For more information, see the troubleshooting documentation.' The dialog has a close button (X) and a 'LEARN MORE' link. Below the dialog, there are three cards: 'Explore Backup and DR', 'View billing report', and 'Monitor VMs'. The background shows the 'INSTANCES' tab with a table of VM instances.

In use by	Internal IP	External IP	Connect

The screenshot shows the Google Cloud Platform 'VM instances' page with a successful instance. The 'INSTANCES' tab is selected. The table below shows one instance with a green status icon.

Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
✓	instance-1	europe-central2-b			10.186.0.2 (nic0)	34.118.28.234 (nic0)	SSH

Below the table, there are three cards: 'Explore Backup and DR', 'View billing report', and 'Monitor VMs'.

3. Connect to your instance using SSH directly on the console

(optional) Follow this link to setup ssh from your local terminal

<https://cloud.google.com/compute/docs/connect/standard-ssh>

Create a VM instance (5)

The screenshot shows the Google Cloud Platform 'VM instances' page. At the top, there are tabs for 'INSTANCES', 'OBSERVABILITY', and 'INSTANCE SCHEDULES'. Below the tabs, the page title 'VM instances' is displayed. A filter bar with a funnel icon and the text 'Filter Enter property name or value' is present. A table lists VM instances with columns: checkbox, Status, Name, Zone, Recommendations, In use by, Internal IP, External IP, and Connect. One instance, 'instance-1', is listed with a green status icon, located in 'europe-central2-b' zone, with internal IP '10.186.0.2' and external IP '34.118.28.234'. To the right of the table, a context menu is open, showing options: 'Start/Resume', 'Stop', 'Suspend', 'Reset', 'Delete', 'View network details', 'Create new machine image', 'View logs', 'View monitoring', and a 'More' icon at the bottom. The 'Stop' and 'Delete' options are highlighted with red rectangular boxes. Below the table, a 'Related actions' section contains three cards: 'Explore Backup and DR' (with a 'NEW' badge), 'View billing report', and 'Monitor VMs'.

	Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
<input type="checkbox"/>	✓	instance-1	europe-central2-b			10.186.0.2 (nic0)	34.118.28.234 (nic0)	SSH

Related actions

- Explore Backup and DR** NEW
Back up your VMs and set up disaster recovery
- View billing report**
View and manage your Compute Engine billing
- Monitor VMs**
View outlier VMs across metrics like CPU and network

Context menu options:

- Start/Resume
- Stop**
- Suspend
- Reset
- Delete**
- View network details
- Create new machine image
- View logs
- View monitoring

IMPORTANT : make sure you delete or at least stop your instance when you are not using it, to save your credits

Setting up NVIDIA drivers and using your instance

- If you already used NVIDIA GPUs on a unix machine, you should be able to set up your VM easily
- If not, you can follow these suggested steps to install CUDA on your VM :
 - <https://docs.google.com/document/d/1VOyCTOin7JZadlxLMJ457mo7ihypHYT3U2IA83Ba5VY/edit>
- More information here:
<https://cloud.google.com/compute/docs/gpus/install-drivers-gpu>