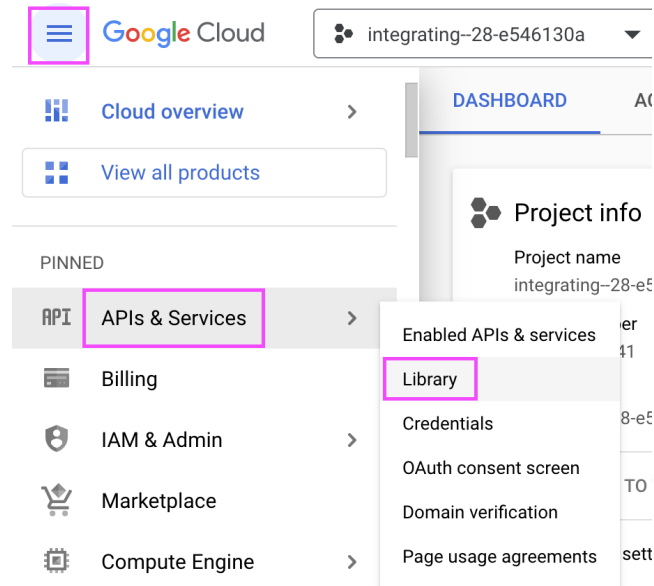


1. Enable the necessary APIs for: Cloud Source Repositories API, Cloud Functions, Cloud Build

a. “Navigation menu”; “APIs & Services”, “Library”



b. Type each service into the search bar individually, and click to “enable” each API



“source repo”

1 result



Cloud Source Repositories API
Google Enterprise API ⓘ
Access source code repositories hosted by Google.



Cloud Source Repositories API

[Google Enterprise API](#)

Access source code repositories hosted by Google.

ENABLE

[TRY THIS API](#)

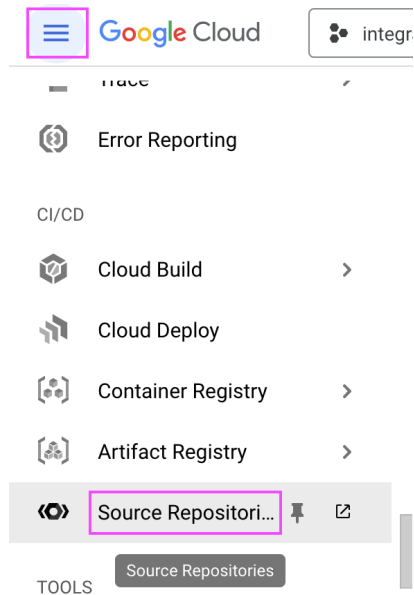
Click to enable this API

[OVERVIEW](#)

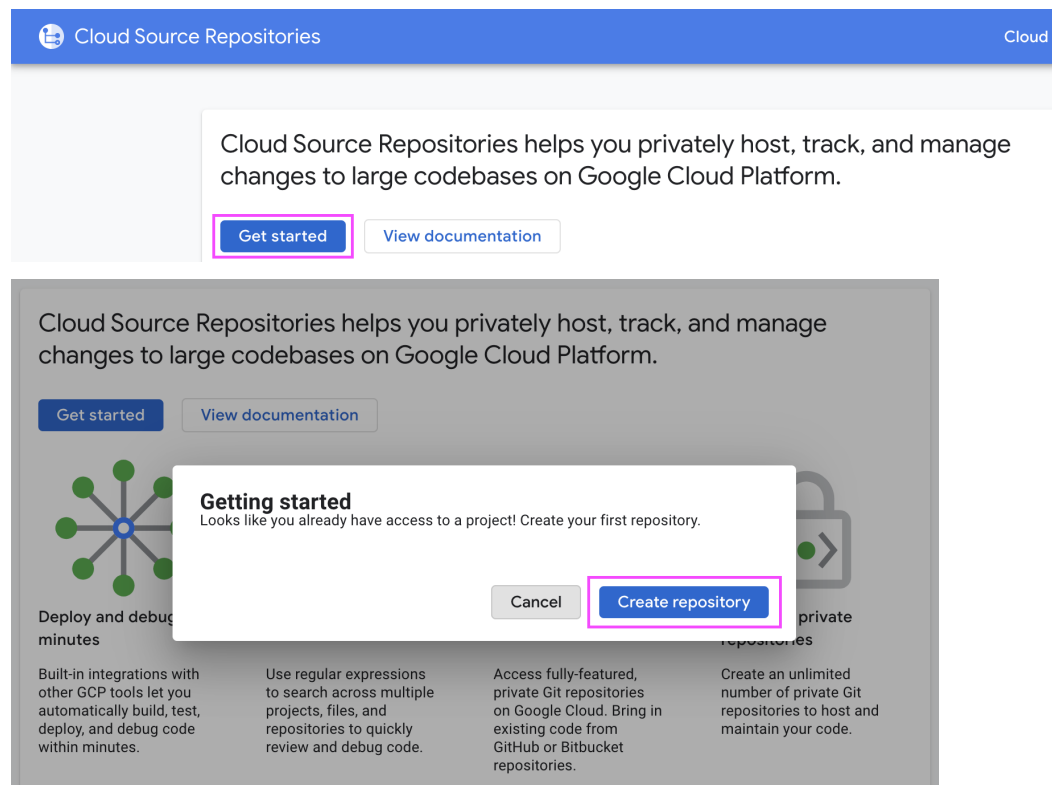
[PRICING](#)

[DOCUMENTATION](#)

2. Set up the source repository that will store our code
 - a. “Navigation menu”; “Source Repositories” (opens in new tab)



- b. “Get started”; “Create repository”



- c. “Create new repository”; “Continue”

Add a repository

Select one of the following options to continue:

- ☒ **Create new repository**
Choose this option to create an empty repository.
- ☐ **Connect external repository**
Choose this option to mirror a repository from a hosted service, such as GitHub or Bitbucket.

Cancel

Continue

- d. Assign “Repository name” and choose the “Project”. Since we are integrating Cloud Functions and the repository, we will select the project starting with “integrating”; “Create”

Cloud Source Repositories

Create new repository

Repository name *
integrationFR

Project *
Type or select a project ID

OR Create project

custom-images-251316 (custom-images)

custom-images-staging (custom-images-staging)

integrating--28-e546130a (integrating--28-e546130a)

pricing

Cancel Create

- e. An alert will show stating “your repository is currently empty”
3. Populate the repository using Cloud Shell

- a. In our open Google Cloud tab, “Activate Cloud Shell”, in the upper right hand corner; “Continue” upon startup

Google Cloud integrating--28-e546130a Search for resources, docs, products, and... Search

Activate Cloud Shell

Welcome

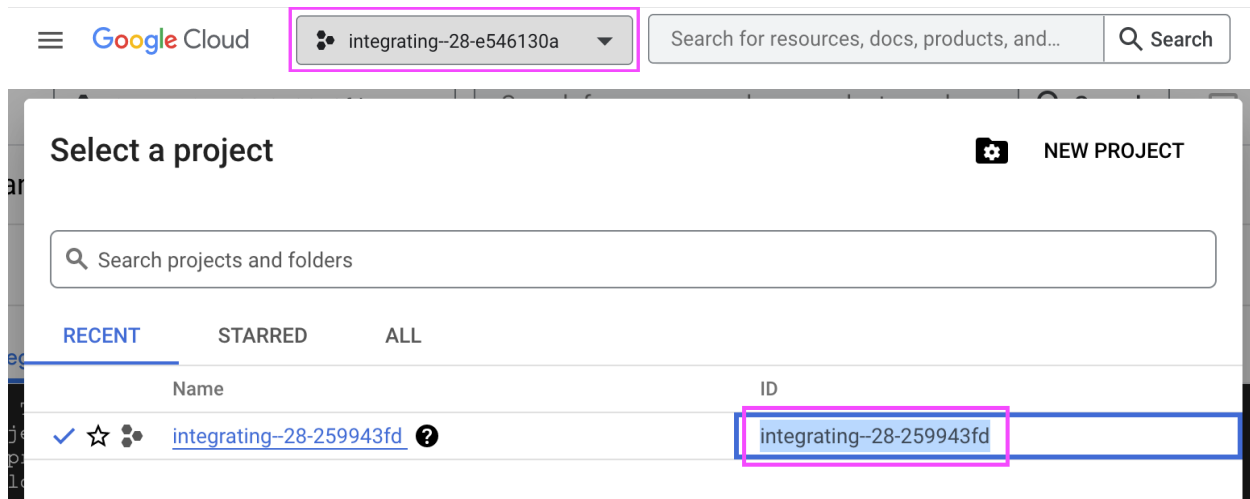
You're working in integrating--28-e546130a

Project number: 187237745841 Project ID: integrating--28-e546130a

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

Create a VM Run a query in BigQuery Create a GKE cluster Create a storage bucket

- b. To use commands on this project, copy the project ID, located on the “Select a Project” page, and in Cloud Shell type the following command, followed by enter:



- i. `gcloud config set project integrating--28-259943fd`
- c. “Authorize”
- d. Clone the repository we created into the Cloud Shell using the following command, followed by enter:
- i. `gcloud source repos clone integrationFR`

The screenshot shows a Cloud Shell terminal window. The title bar indicates the project is 'integrating--28-259943fd'. The terminal output shows the following commands and their results:

```
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to integrating--28-259943fd.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ gcloud config set project integrating--28-259943fd
Updated property [core/project].
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ gcloud source repos clone integrationFR
Cloning into '/home/cloud_user_p_7a44e7fd/integrationFR'...
warning: You appear to have cloned an empty repository.
Project [integrating--28-259943fd] repository [integrationFR] was cloned to [/home/cloud_user_p_7a44e7fd/integrationFR].
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $
```

- e. Bring the repository in from GitHub
- i. `git clone`
`https://github.com/linuxacademy/content-gcpro-developer`

```
CLOUD SHELL
Terminal (integrating--28-259943fd) x + v Open Editor

Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to integrating--28-259943fd.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ gcloud config set project integrating--28-259943fd
Updated property [core/project].
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ gcloud source repos clone integrationFR
Cloning into '/home/cloud_user_p_7a44e7fd/integrationFR'...
warning: You appear to have cloned an empty repository.
Project [integrating--28-259943fd] repository [integrationFR] was cloned to [/home/cloud_user_p_7a44e7fd/integrationFR].
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ git clone https://github.com/linuxacademy/content-gcpro-developer
Cloning into 'content-gcpro-developer'...
remote: Enumerating objects: 383, done.
remote: Counting objects: 100% (157/157), done.
remote: Compressing objects: 100% (69/69), done.
remote: Total 383 (delta 84), reused 152 (delta 79), pack-reused 226
Receiving objects: 100% (383/383), 1.38 MiB | 8.19 MiB/s, done.
Resolving deltas: 100% (169/169), done.
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $
```

- f. Copy the GitHub files just brought in, to the source repository
 - i. `cp content-gcpro-developer/cloud-functions-lab/* integrationFR`

```
CLOUD SHELL
Terminal (integrating--28-259943fd) x + v Open Editor

Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to integrating--28-259943fd.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ gcloud config set project integrating--28-259943fd
Updated property [core/project].
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ gcloud source repos clone integrationFR
Cloning into '/home/cloud_user_p_7a44e7fd/integrationFR'...
warning: You appear to have cloned an empty repository.
Project [integrating--28-259943fd] repository [integrationFR] was cloned to [/home/cloud_user_p_7a44e7fd/integrationFR].
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ git clone https://github.com/linuxacademy/content-gcpro-developer
Cloning into 'content-gcpro-developer'...
remote: Enumerating objects: 383, done.
remote: Counting objects: 100% (157/157), done.
remote: Compressing objects: 100% (69/69), done.
remote: Total 383 (delta 84), reused 152 (delta 79), pack-reused 226
Receiving objects: 100% (383/383), 1.38 MiB | 8.19 MiB/s, done.
Resolving deltas: 100% (169/169), done.
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ cp content-gcpro-developer/cloud-functions-lab/* integrationFR
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $
```

- 4. Open the GitHub file using the following command followed by enter
 - a. `cd integrationFR`

```
CLOUD SHELL
Terminal (integrating--28-259943fd) x + v Open Editor

Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to integrating--28-259943fd.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ gcloud config set project integrating--28-259943fd
Updated property [core/project].
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ gcloud source repos clone integrationFR
Cloning into '/home/cloud_user_p_7a44e7fd/integrationFR'...
warning: You appear to have cloned an empty repository.
Project [integrating--28-259943fd] repository [integrationFR] was cloned to [/home/cloud_user_p_7a44e7fd/integrationFR].
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ git clone https://github.com/linuxacademy/content-gcpro-developer
Cloning into 'content-gcpro-developer'...
remote: Enumerating objects: 383, done.
remote: Counting objects: 100% (157/157), done.
remote: Compressing objects: 100% (69/69), done.
remote: Total 383 (delta 84), reused 152 (delta 79), pack-reused 226
Receiving objects: 100% (383/383), 1.38 MiB | 8.19 MiB/s, done.
Resolving deltas: 100% (169/169), done.
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ cp content-gcpro-developer/cloud-functions-lab/* integrationFR
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ cd integrationFR
cloud_user_p_7a44e7fd@cloudshell:~/integrationFR (integrating--28-259943fd) $
```

- 5. Configure two Git variables so the files can be worked with
 - a. `git config user.name "Elisha Waller"`
 - b. `git config user.email "ewallertech@gmail.com"`

```
Cloud Shell
Terminal (integrating--28-259943fd) x +
Open Editor

Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to integrating--28-259943fd.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ gcloud config set project integrating--28-259943fd
Updated property [core/project].
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ gcloud source repos clone integrationFR
Cloning into '/home/cloud_user_p_7a44e7fd/integrationFR'...
warning: You appear to have cloned an empty repository.
Project [integrating--28-259943fd] repository [integrationFR] was cloned to [/home/cloud_user_p_7a44e7fd/integrationFR].
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ git clone https://github.com/linuxacademy/content-gcp-developer
Cloning into 'content-gcp-developer'...
remote: Enumerating objects: 383, done.
remote: Counting objects: 100% (157/157), done.
remote: Compressing objects: 100% (69/69), done.
remote: Total 383 (delta 84), reused 152 (delta 79), pack-reused 226
Receiving objects: 100% (383/383), 1.38 MiB | 8.19 MiB/s, done.
Resolving deltas: 100% (169/169), done.
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ cp content-gcp-developer/cloud-functions-lab/* integrationFR
cloud_user_p_7a44e7fd@cloudshell:~/integrationFR (integrating--28-259943fd) $ cd integrationFR
cloud_user_p_7a44e7fd@cloudshell:~/integrationFR (integrating--28-259943fd) $ git config user.name "Elisha Waller"
cloud_user_p_7a44e7fd@cloudshell:~/integrationFR (integrating--28-259943fd) $ git config user.email "ewallertech@gmail.com"
cloud_user_p_7a44e7fd@cloudshell:~/integrationFR (integrating--28-259943fd) $
```

6. Commit the files to our main repositories with the following three commands; enter after each command

- git add .
- git commit -m "Initial commit"
- git push origin master

```
Cloud Shell
Terminal (integrating--28-259943fd) x +
Open Editor

Cloning into 'content-gcp-developer'...
remote: Enumerating objects: 383, done.
remote: Counting objects: 100% (157/157), done.
remote: Compressing objects: 100% (69/69), done.
remote: Total 383 (delta 84), reused 152 (delta 79), pack-reused 226
Receiving objects: 100% (383/383), 1.38 MiB | 8.19 MiB/s, done.
Resolving deltas: 100% (169/169), done.
cloud_user_p_7a44e7fd@cloudshell:~ (integrating--28-259943fd) $ cp content-gcp-developer/cloud-functions-lab/* integrationFR
cloud_user_p_7a44e7fd@cloudshell:~/integrationFR (integrating--28-259943fd) $ cd integrationFR
cloud_user_p_7a44e7fd@cloudshell:~/integrationFR (integrating--28-259943fd) $ git config user.name "Elisha Waller"
cloud_user_p_7a44e7fd@cloudshell:~/integrationFR (integrating--28-259943fd) $ git config user.email "ewallertech@gmail.com"
cloud_user_p_7a44e7fd@cloudshell:~/integrationFR (integrating--28-259943fd) $ git add .
cloud_user_p_7a44e7fd@cloudshell:~/integrationFR (integrating--28-259943fd) $ git commit -m "Initial commit"
[master (root-commit) 215f7cb] Initial commit
3 files changed, 14 insertions(+)
create mode 100644 README.md
create mode 100644 main.py
create mode 100644 requirements.txt
cloud_user_p_7a44e7fd@cloudshell:~/integrationFR (integrating--28-259943fd) $ git push origin master
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 2 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (5/5), 635 bytes | 635.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0
To https://source.developers.google.com/p/integrating--28-259943fd/r/integrationFR
 * [new branch] master -> master
cloud_user_p_7a44e7fd@cloudshell:~/integrationFR (integrating--28-259943fd) $
```

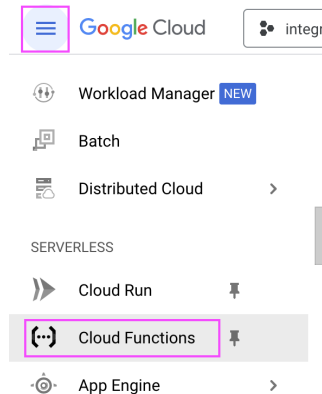
7. Revisit the open Cloud Source Repositories tab; refresh the page; and now, our three files are included within the repository

The screenshot shows the Cloud Source Repositories web interface. The top navigation bar includes 'Cloud Source Repositories', a search bar, and a 'Cloud Console' link. The main content area is for the repository 'integrationFR' on the 'master' branch. On the left, the 'Files' tab is active, showing a list of files: 'Repository root', 'README.md', 'main.py', and 'requirements.txt'. The 'main.py' and 'requirements.txt' files are highlighted with a pink box. The right pane shows the 'cloud-functions' directory with a list of files: 'README.md', 'main.py', and 'requirements.txt'. Below this, the 'History' tab is active, showing a table of commits. The first commit is highlighted with a pink box, showing the commit ID '215f7cb', author 'Elisha', commit date '2022-10-17 14:56', and description 'Initial commit'.

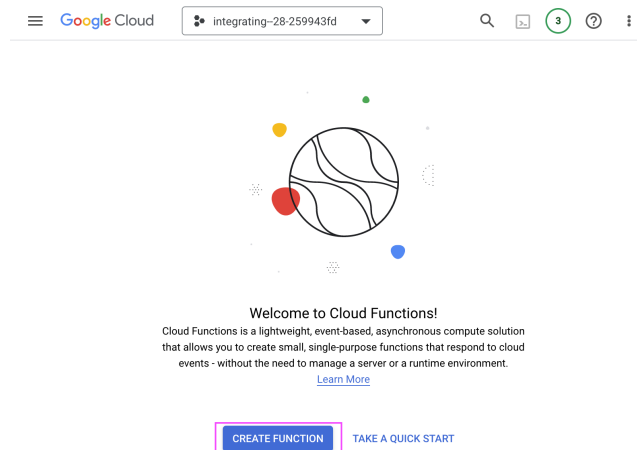
ID	Author	Commit Date	Description
215f7cb	Elisha	2022-10-17 14:56	Initial commit

8. Create a Cloud Function

a. “Navigation menu”; “Cloud Functions”

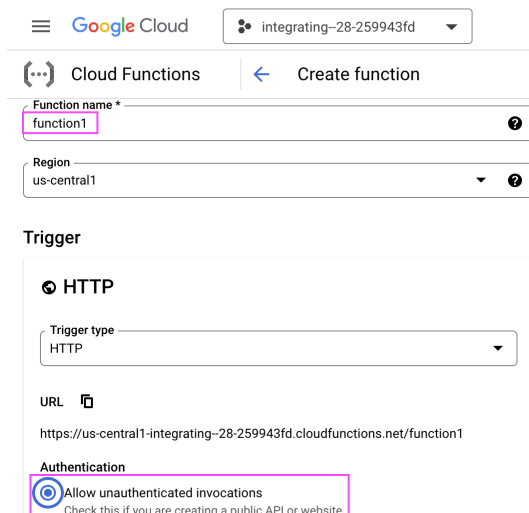


b. “Create Function”



c. Assign function a “Function name”; ex: function1

d. Under “Authentication”, select “Allow unauthenticated invocations”; “Save”; “Next”



- e. Assign a “Runtime”; ex: “Python 3.9”
- f. For “Source code” choose “Cloud Source repository”
- g. “Entry point”; ex: greetings_http
- h. “Repository”; ex: integrationFR
- i. “Deploy”

Cloud Functions Create function

Configuration — 2 Code

Runtime: Python 3.9

Source code: Cloud Source repository

Entry point *: greetings_http

Repository *: integrationFR

Branch / tag: Branch (selected), Tag

Branch name *: master

Directory with source code *: /

PREVIOUS DEPLOY CANCEL

9. Test the Cloud Function to make sure it's working

- a. Click on the function's name

Environment	Name	Last deployed	Region	Trigger	Runtime	Memory allocated	Executed function	Authentication
1st gen	function1	Oct 17, 2022, 3:13:45 PM	us-central1	HTTP	Python 3.9	256 MB	greetings_http	Allow unauthenticated

- b. “Trigger”

- c. Click on the trigger link

Cloud Functions Function details

function1 1st gen

Version: Version 1, deployed at Oct 17, 2022, 3:13:45 P...

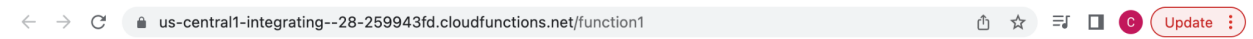
METRICS DETAILS SOURCE VARIABLES TRIGGER PERMISSIONS LOGS TESTING

HTTP

Trigger URL: https://us-central1-integrating-28-259943fd.cloudfunctions.net/function1

Require HTTPS

d. Web page opens with default message



Greetings from Linux Academy, my friend!

Via Source Control Repo

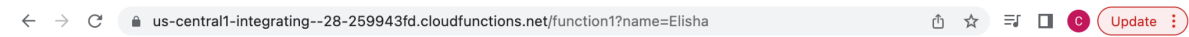
e. Type "?name=Elisha" at end of URL in search bar; enter



Greetings from Linux Academy, my friend!

Via Source Control Repo

f. Web page now displays the name entered in default message



Greetings from Linux Academy, Elisha!

Via Source Control Repo

g. In the Cloud Functions tab click on "Testing"

h. Under the "Configure Triggering Event" section, type inside of brackets: {"name": "Elisha Waller"}

i. "Test the Function"

Google Cloud integrating--28-259943fd Search for resources, docs, products, and... Search

Cloud Functions Function details EDIT DELETE COPY LEARN

function1 1st gen Version 1, deployed at Oct 17, 2022, 3:13:45 P...

METRICS DETAILS SOURCE VARIABLES TRIGGER PERMISSIONS LOGS TESTING

Configure Triggering Event

Press Alt+F1 for Accessibility Options.

1 {"name": "Elisha Waller"}

Test Command TEST IN CLOUD SHELL

```
curl -m 70 -X POST https://us-central1-integrating--28-259943fd.c... Ifu
-H "Authorization: bearer $(gcloud auth print-identity-token)" \
-H "Content-Type: application/json" \
-d '{"name": "Elisha Waller"}'
```

TEST THE FUNCTION

j. "Output" section shows the completed greeting

console.cloud.google.com/functions/details/us-central1/function1?env=gen1&project=integrating--28-259943... Update

Google Cloud integrating--28-259943fd Search for resources, docs, products, and... Search

Cloud Functions Function details EDIT DELETE COPY LEARN

function1 1st gen Version 1, deployed at Oct 17, 2022, 3:13:45 P...

METRICS DETAILS SOURCE VARIABLES TRIGGER PERMISSIONS LOGS TESTING

TEST THE FUNCTION

Testing in the Cloud Console has a 5 minute timeout. Note that this is different from the limit set in the function configuration.

Output Complete

```
$ <h1 style="margin:20px auto;width:800px;">Greetings from Linux Academy, Elisha Waller!</h1><h2>Via Source Control Repo</h2>
```