

Exercise: Create a function in Cloud Functions for Event Driven Processing

In this exercise, you will:

- Navigate to the Cloud Functions Console Page
- Click Create Function
- Specify configuration details of a function
- Choose a supported language
- Deploy example code
- Verify the function is deployed.

Start by navigating to the Cloud Functions console page shown in Figure 1.

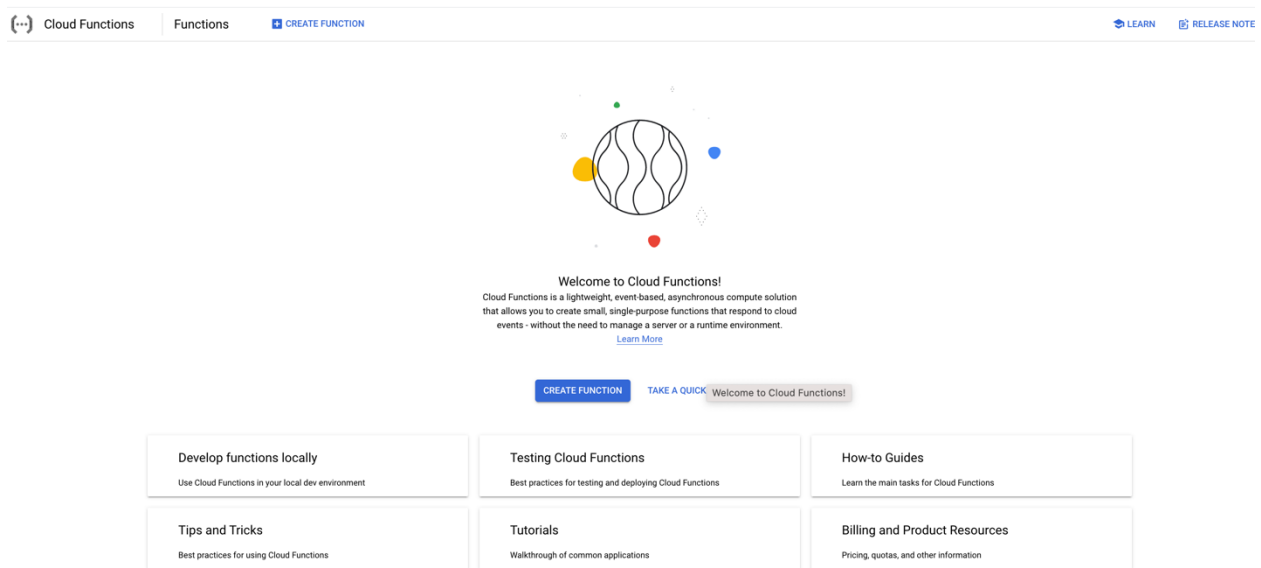


Figure 1. Cloud Functions console page

Click on Create Function to open a page like that shown in Figure 2.

Cloud Functions

Create function

1 Configuration

2 Code

Basics

Environment

1st gen

Function name *

function-1

Region

us-central1

Trigger

HTTP

Trigger type

HTTP

URL

https://us-central1-radiant-anchor-373718.cloudfunctions.net/function-1

Authentication

☐ Allow unauthenticated invocations

Check this if you are creating a public API or website.

☒ Require authentication

Manage authorized users with Cloud IAM.

☒ Require HTTPS

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Try the new Cloud Functions 2nd gen!

This next-generation of our Function-as-a-Service product comes with an advanced feature set giving you powerful infrastructure, advanced control over performance and scalability, more control around the function's runtime, more available regions, and triggers from over 90+ event sources via Cloud Audit Logs. [Learn more](#)

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Figure 2. The first part of the Cloud Function specification.

Choose 1st gen environment, a function name, and choose a region. Remember the region, you will create a Cloud Storage bucket in that region later.

Open the drop-down list of Trigger types. (See Figure 3). Choose Cloud Storage.

Trigger

⚙ HTTP

Trigger type

- HTTP
- Cloud Pub/Sub
- Cloud Storage
- Cloud Firestore
- Google Analytics for Firebase PREVIEW
- Firebase Authentication PREVIEW
- Firebase Realtime Database PREVIEW
- Firebase Remote Config PREVIEW

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Figure 3. List of Cloud Function trigger types.

After choosing Cloud Storage, the parameters in the Triggers configuration will change to those shown in Figure 4.

Trigger

☰ Cloud Storage

Trigger type
Cloud Storage ▼

Event type *
On (finalizing/creating) file in the selected bucket ▼ ?

Bucket * BROWSE

☐ Retry on failure ?

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Figure 4. Cloud Storage trigger type configuration options.

Choose event type On (finalizing/creating) file in the selected bucket. Then click on Browse to browse buckets. This will display a pop-up such as in Figure 5.

Select bucket

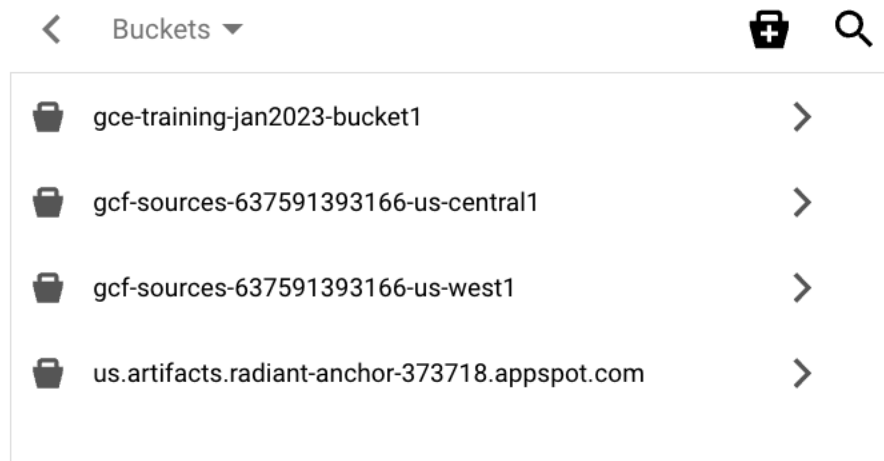


Figure 5. A list of buckets in your project.

Click the bucket icon with the + sign to create a new bucket. This will show a form like in Figure 6. Give the bucket a unique name and click Continue. Specify a region for the bucket using the same region you used to create the Cloud Function and then click Create. This will use defaults for other bucket configuration parameters.

Create a bucket

- **Name your bucket**

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

Ex. 'example', 'example_bucket-1', or 'example.com'

Tip: Don't include any sensitive information

✓ 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**

Protection tools: None

Data encryption: Google-managed key

CREATE

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Figure 6. Create a bucket.

Click Next on the bottom of the Create Cloud Functions page to open a page such as shown in Figure 7.

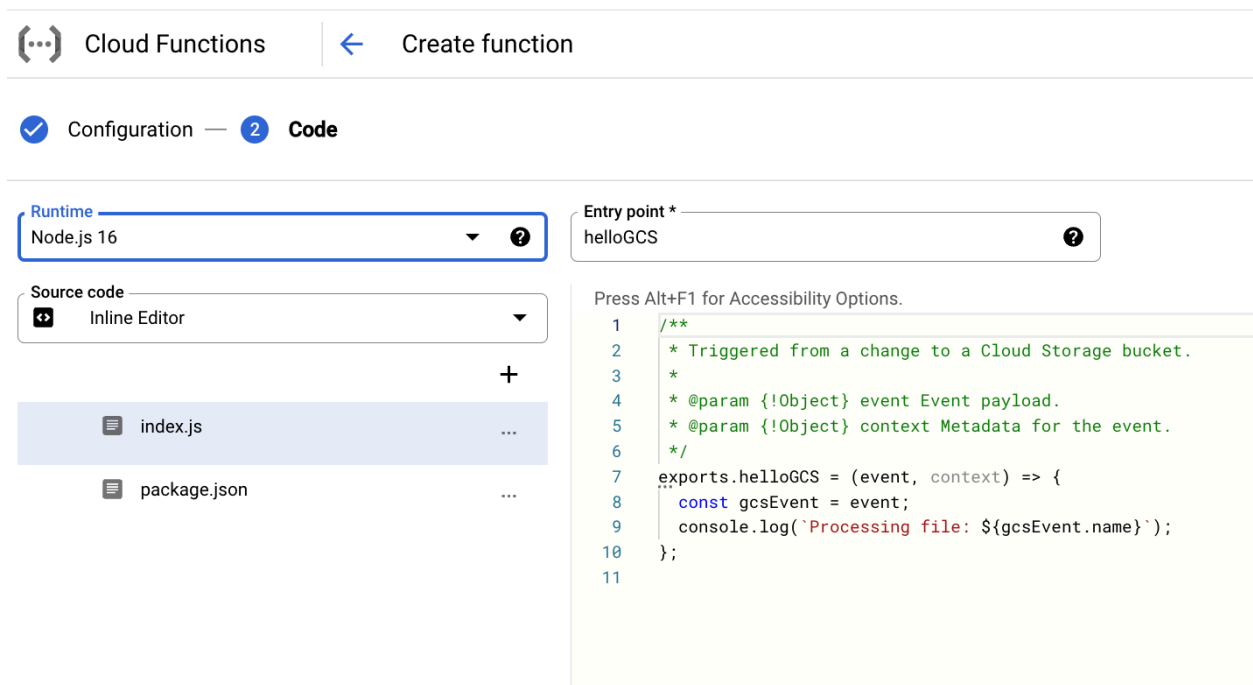


Figure 7. Example function in Node.js.

List the runtime options as shown in Figure 8 and review the different runtimes available.

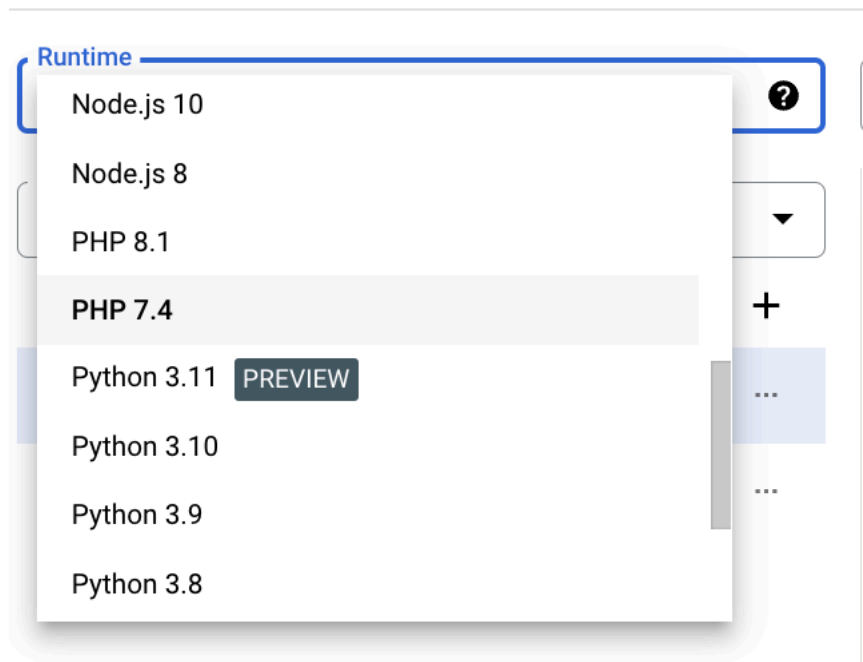


Figure 8. Partial list of runtimes available in Cloud Functions.

Set the runtime to Python 3.10. Click Deploy at the bottom of the form. This will start deploying the function and display a dashboard like in Figure 9.

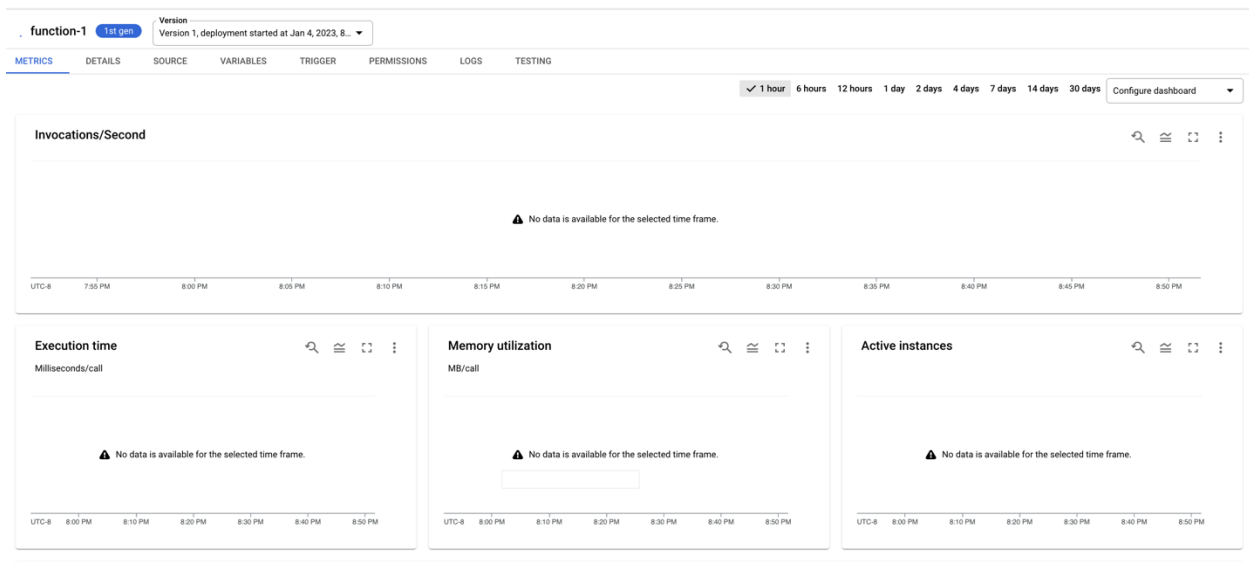


Figure 9. Cloud Function dashboard.

When the function is finished deploying there will be a green checkmark in the upper left near the name of the function. Return to the Cloud Function console page to verify the function is deployed.