# Cloud Functions documentation

cloud.google.com/functions/docs

Cloud Functions is a lightweight compute solution for developers to create singlepurpose, stand-alone functions that respond to Cloud events without the need to manage a server or runtime environment. Learn more

#### Guides

- Quickstarts: Node.js, Python, Go, Java, NET, Ruby, or PHP
- Your first function: Node.js, Python, Go, Java, .NET, Ruby, or PHP
- Writing functions: <u>HTTP</u> or <u>Event-driven</u>
- <u>Deploying functions</u>
- Calling functions: <u>HTTP</u>, <u>Pub/Sub</u>, <u>Storage</u>, <u>Firestore</u>, <u>Scheduled</u>, or <u>More</u>

More arrow forward

## Training and tutorials

Try Cloud Functions tutorials, training courses, and *Qwiklabs* from Google Cloud.

### Walkthrough

Create a simple Hello, World! function in the console

Quickly deploy your first function without any local setup.

Learn more arrow forward

**Owiklabs** 

OK Google: Build interactive apps with Google Assistant

This Quest teaches you how to build practical Google Assistant applications integrated with Google Cloud services via APIs, such as Dialogflow and Cloud Functions.

#### Learn more arrow forward

**Tutorial** 

Detect text in images by connecting Functions, Storage, Vision API, Pub/Sub, and the Translation API

React to Cloud Storage changes with a function that processes an image using the Vision API to extract text and then pass it to other services.

<u>Learn more arrow forward</u>

Codelab

Automated Classification of Data Uploaded to Cloud Storage with the DLP API and Cloud Functions

Automatically classify data uploaded to Cloud Storage using Pub/Sub, Cloud Functions, and the Data Loss Prevention API.

Learn more arrow forward

### **Use cases**

Explore use cases, reference architectures, whitepapers, best practices, and industry solutions.

Use case

Deploying a serverless integration solution based on Cloud Functions and Pub/Sub

Shows how to set up and test a data integration solution.

Functions Pub/Sub Serverless

#### Learn more arrow forward

Use case

System testing Cloud Functions using Cloud Build and Terraform

Describes how to automate end-to-end testing of an app built with Cloud Functions.

**Cloud Build Terraform Automation** 

#### Learn more arrow forward

Use case

Streaming data from Cloud Storage into BigQuery using Cloud Functions

Demonstrates how to stream new objects from a Cloud Storage bucket into BigQuery by using Cloud Functions.

Storage BigQuery Import

### Learn more arrow forward

Use case

Processing User-Generated Content Using the Video Intelligence and Cloud Vision APIs

Shows how to deploy a set of Cloud Functions in order to process images and videos with the Cloud Vision API and Cloud Video Intelligence API.

Video Intelligence Cloud Vision Images

Learn more arrow\_forward

## **Code samples**

Dive into coding with examples that demonstrate how to use and connect Google Cloud services.

github

Node.js samples

A variety of samples ranging from Hello World to DevOps scripts.

Open GitHub arrow forward github

Python samples

Python samples for Cloud Functions. Learn from reading sample code.

<u>Open GitHub arrow forward</u> github

Go samples

Hello World, Bigtable, Firebase, image processing and many other samples.

<u>Open GitHub arrow forward</u> github

Java samples

Java samples to get started with Cloud Functions, including Gradle, Kotlin, Scale, and Groovy scripts.

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PHP samples

PHP samples to get started with Cloud Functions, including Firebase, Pub/Sub, and Storage.

Open GitHub arrow forward

### **Videos**

# How to build APIs for serverless workloads with Google Cloud

Serverless computing allows developers to create highly scalable applications and services. In this video, we demo Google Cloud's API Gateway - a tool that helps you create, secure, and monitor APIs for many of Google Cloud serverless backends - such

YouTube

### **Integrating Webhooks with Pub/Sub**

Learn more from our lab  $\rightarrow$  https://goo.gle/36mZqEX Webhooks integrated with synchronous systems can be problematic. In this episode of Serverless Expeditions, we show you how to utilize Pub/Sub to asynchronously handle events from the GitHub API -

YouTube

# Where should I run my stuff? Choosing compute options

Serverless? VMs? Containers? Yes, Google Cloud has services providing all of those... but how to decide which to use? This talk answers that question. There are many different ways to run your code. Additionally, the tradeoffs are different when