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[Cloud Vision API](https://cloud.google.com/vision/) (<https://cloud.google.com/vision/>)

[Documentation](https://cloud.google.com/vision/docs/) (<https://cloud.google.com/vision/docs/>) [Guides](#)

# Quickstart: Using Client Libraries

This page shows you how to get started with the Cloud Vision API in your favorite programming language.

## Before you begin

1. [Sign in](https://accounts.google.com/Login) (<https://accounts.google.com/Login>) to your Google Account.

If you don't already have one, [sign up for a new account](https://accounts.google.com/SignUp) (<https://accounts.google.com/SignUp>).

2. In the Cloud Console, on the project selector page, select or create a Google Cloud project.

★ **Note:** If you don't plan to keep the resources that you create in this procedure, create a project instead of selecting an existing project. After you finish these steps, you can delete the project, removing all resources associated with the project.

[GO TO THE PROJECT SELECTOR PAGE](https://console.cloud.google.com/projectselector) ([HTTPS://CONSOLE.CLOUD.GOOGLE.COM/PROJECTSELECTOR](https://console.cloud.google.com/projectselector))

3. Make sure that billing is enabled for your Google Cloud project. [Learn how to confirm billing is enabled for your project](#) (<https://cloud.google.com/billing/docs/how-to/modify-project>).
4. Enable the Cloud Vision API.

[ENABLE THE API](https://console.cloud.google.com/flows/enableapi?apiid=vision-js) ([HTTPS://CONSOLE.CLOUD.GOOGLE.COM/FLOWS/ENABLEAPI?APIID=VISION-JS](https://console.cloud.google.com/flows/enableapi?apiid=vision-js))

5. Set up authentication:

- a. In the Cloud Console, go to the **Create service account key** page.

[GO TO THE CREATE SERVICE ACCOUNT KEY PAGE](https://console.cloud.google.com/iam-gcp/serviceaccounts/createkey) ([HTTPS://CONSOLE.CLOUD.GOOGLE.COM/](https://console.cloud.google.com/iam-gcp/serviceaccounts/createkey))

- b. From the **Service account** list, select **New service account**.
- c. In the **Service account name** field, enter a name.
- d. From the **Role** list, select **Project > Owner**.

★ **Note:** The **Role** field authorizes your service account to access resources. You can view and change this field later by using the [Cloud Console](https://console.cloud.google.com/) (<https://console.cloud.google.com/>). If you are developing a production app, specify more granular permissions than **Project > Owner**. For more information, see [granting roles to service accounts](https://cloud.google.com/iam/docs/granting-roles-to-service-accounts) (<https://cloud.google.com/iam/docs/granting-roles-to-service-accounts>).

- e. Click **Create**. A JSON file that contains your key downloads to your computer.
6. Set the environment variable **GOOGLE\_APPLICATION\_CREDENTIALS** to the file path of the JSON file that contains your service account key. This variable only applies to your current shell session, so if you open a new session, set the variable again.

▼ **Example:** Linux or macOS

Replace **[PATH]** with the file path of the JSON file that contains your service account key.

```
export GOOGLE_APPLICATION_CREDENTIALS="[PATH]"
```

For example:

```
export GOOGLE_APPLICATION_CREDENTIALS="/home/user/Downloads/service-account-fil
```

▼ **Example:** Windows

Replace **[PATH]** with the file path of the JSON file that contains your service account key, and **[FILE\_NAME]** with the filename.

With PowerShell:

```
$env:GOOGLE_APPLICATION_CREDENTIALS="[PATH]"
```

For example:

```
$env:GOOGLE_APPLICATION_CREDENTIALS="C:\Users\username\Downloads\[FILE_NAME].js
```

With command prompt:

```
set GOOGLE_APPLICATION_CREDENTIALS=[PATH]
```

## Install the client library

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For more on setting up your C# development environment, refer to the [C# Development Environment Setup Guide](https://cloud.google.com/dotnet/docs/setup) (<https://cloud.google.com/dotnet/docs/setup>).

```
Install-Package Google.Cloud.Vision.V1 -Pre
```

## Label detection

Now you can use the Vision API to request information from an image, such as label detection. Run the following code to perform your first image label detection request:

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Before trying this sample, follow the C# setup instructions in the [Vision API Quickstart Using Client Libraries](https://cloud.google.com/vision/docs/quickstart-client-libraries) (<https://cloud.google.com/vision/docs/quickstart-client-libraries>). For more information, see the [Vision API C# API reference documentation](https://googleapis.github.io/google-cloud-dotnet/docs/Google.Cloud.Vision.V1/) (<https://googleapis.github.io/google-cloud-dotnet/docs/Google.Cloud.Vision.V1/>).

```
CLOUDPLATFORM/DOTNET-DOCS-SAMPLES/BLOB/MASTER/VISION/API/QUICKSTART/QUICKSTART.CS)
```

```
using Google.Cloud.Vision.V1;
using System;

namespace GoogleCloudSamples
{
    public class QuickStart
    {
        public static void Main(string[] args)
        {
            // Instantiates a client
            var client = ImageAnnotatorClient.Create();
            // Load the image file into memory
            var image = Image.FromFile("wakeupcat.jpg");
            // Performs label detection on the image file
```

```
var response = client.DetectLabels(image);
foreach (var annotation in response)
{
    if (annotation.Description != null)
        Console.WriteLine(annotation.Description);
}
}
```

Congratulations! You've sent your first request to Vision API.

## How did it go?

IT WORKED!

I GOT STUCK.

**Great!** What did you like about the quickstart? What could we have done better? [Let us know! \(#\)](#).

**We're sorry to hear that.** [Let us know what went wrong \(#\)](#). We'll want to fix it.

## Clean up

To avoid incurring charges to your Google Cloud Platform account for the resources used in this quickstart:

- Use the [Cloud Console](https://console.cloud.google.com/) (<https://console.cloud.google.com/>) to delete your project if you do not need it.

## What's next

Find out more about our [Cloud Vision API Client Libraries](https://cloud.google.com/vision/docs/reference/libraries) (<https://cloud.google.com/vision/docs/reference/libraries>).

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