

# Data Loss Prevention: Qwik Start - Command Line

**GSP106**



The [Data Loss Prevention API](#) provides programmatic access to a powerful detection engine for personally identifiable information (PII) and other privacy-sensitive data in unstructured data streams.

The DLP API provides fast, scalable classification and optional redaction for sensitive data elements like credit card numbers, names, social security numbers, passport numbers, and phone numbers. The API supports text and images – just send data to the API or specify data stored on your Cloud Storage, BigQuery, and Cloud Datastore instances.

In this lab you will set up the Data Loss Prevention API and use the API to inspect a string of data for sensitive information.

# Setup and Requirements

## Qwiklabs setup

### Before you click the Start Lab button

Read these instructions. Labs are timed and you cannot pause them. The timer, which starts when you click **Start Lab**, shows how long Google Cloud resources will be made available to you.

This Qwiklabs hands-on lab lets you do the lab activities yourself in a real cloud environment, not in a simulation or demo environment. It does so by giving you new, temporary credentials that you use to sign in and access Google Cloud for the duration of the lab.

### What you need

To complete this lab, you need:

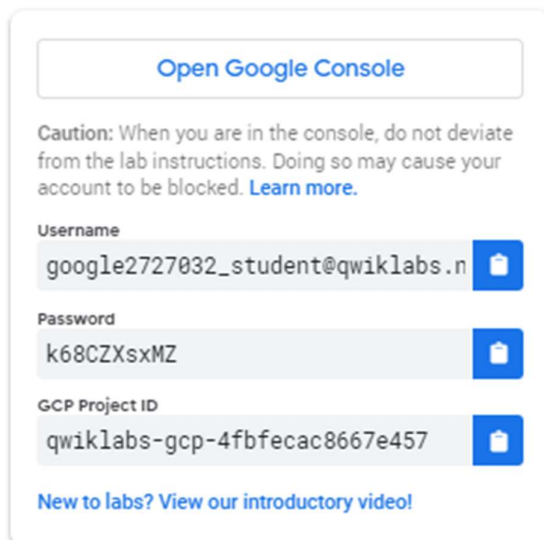
- Access to a standard internet browser (Chrome browser recommended).
- Time to complete the lab.

**Note:** If you already have your own personal Google Cloud account or project, do not use it for this lab.

**Note:** If you are using a Pixelbook, open an Incognito window to run this lab.

### How to start your lab and sign in to the Google Cloud Console

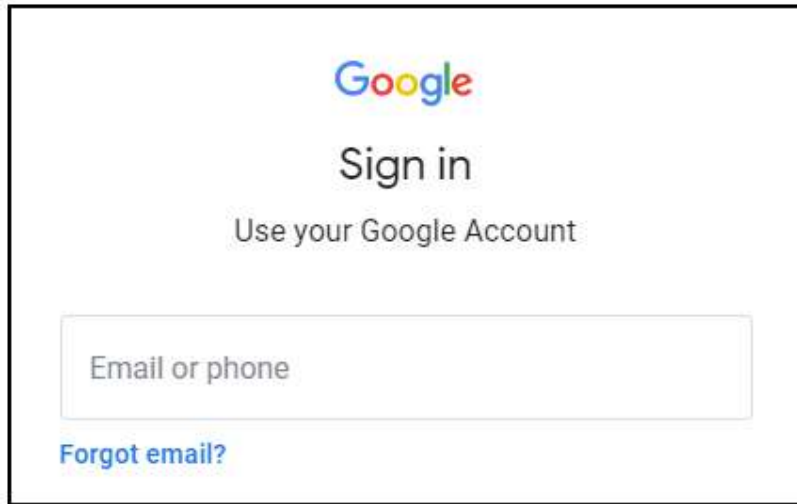
1. Click the **Start Lab** button. If you need to pay for the lab, a pop-up opens for you to select your payment method. On the left is a panel populated with the temporary credentials that you must use for this lab.



The screenshot shows a panel with the following content:

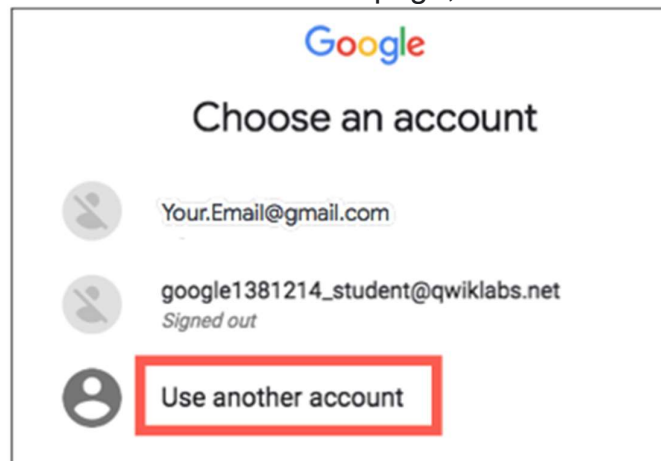
- A button at the top labeled "Open Google Console".
- A caution message: "Caution: When you are in the console, do not deviate from the lab instructions. Doing so may cause your account to be blocked. [Learn more.](#)"
- Three credential fields, each with a copy icon to its right:
  - Username: google2727032\_student@qwiklabs.n
  - Password: k68CZXsxMZ
  - GCP Project ID: qwiklabs-gcp-4fbfecac8667e457
- A link at the bottom: "New to labs? View our introductory video!"

2. Copy the username, and then click **Open Google Console**. The lab spins up resources, and then opens another tab that shows the **Sign in** page.



**Tip:** Open the tabs in separate windows, side-by-side.

If you see the **Choose an account** page, click **Use Another**



**Account.**

3. In the **Sign in** page, paste the username that you copied from the Connection Details panel. Then copy and paste the password.

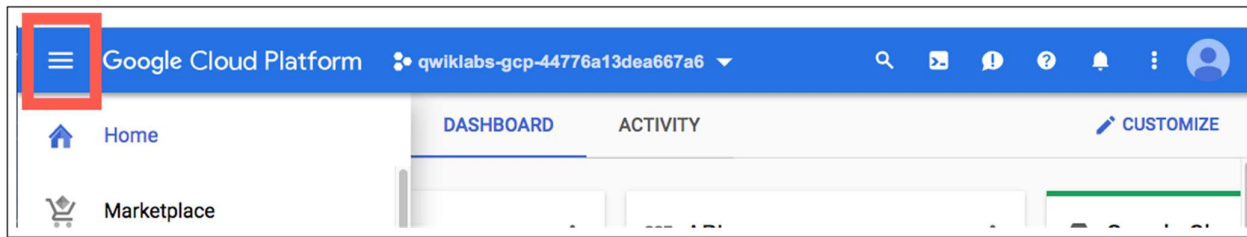
**Important:** You must use the credentials from the Connection Details panel. Do not use your Qwiklabs credentials. If you have your own Google Cloud account, do not use it for this lab (avoids incurring charges).

4. Click through the subsequent pages:

- Accept the terms and conditions.
- Do not add recovery options or two-factor authentication (because this is a temporary account).
- Do not sign up for free trials.

After a few moments, the Cloud Console opens in this tab.

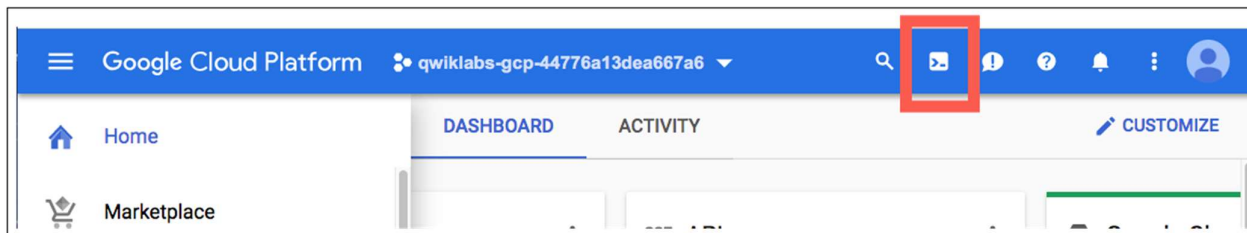
**Note:** You can view the menu with a list of Google Cloud Products and Services by clicking the **Navigation menu** at the top-left.



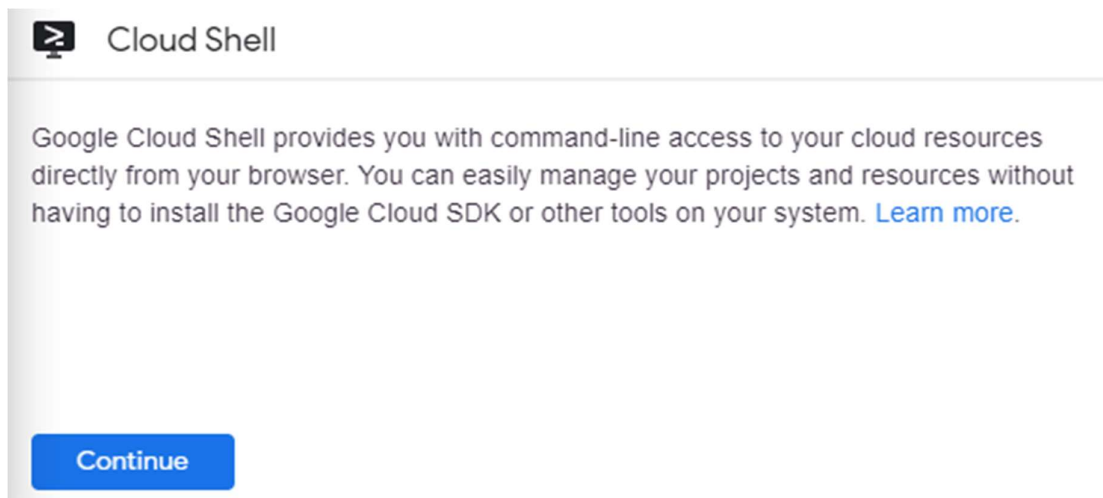
## Activate Cloud Shell

Cloud Shell is a virtual machine that is loaded with development tools. It offers a persistent 5GB home directory and runs on the Google Cloud. Cloud Shell provides command-line access to your Google Cloud resources.

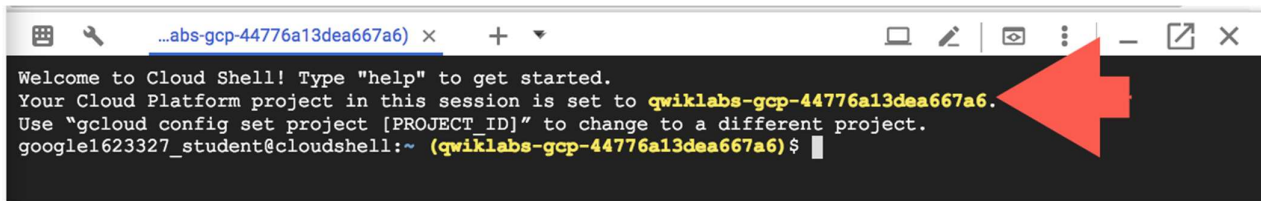
In the Cloud Console, in the top right toolbar, click the **Activate Cloud Shell** button.



Click **Continue**.



It takes a few moments to provision and connect to the environment. When you are connected, you are already authenticated, and the project is set to your *PROJECT\_ID*. For example:



```
...abs-gcp-44776a13dea667a6) x + ▾
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to qwiklabs-gcp-44776a13dea667a6.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
google1623327_student@cloudshell:~ (qwiklabs-gcp-44776a13dea667a6) $
```

`gcloud` is the command-line tool for Google Cloud. It comes pre-installed on Cloud Shell and supports tab-completion.

You can list the active account name with this command:

```
gcloud auth list
```

(Output)

```
Credentialed accounts:
- <myaccount>@<mydomain>.com (active)
```

(Example output)

```
Credentialed accounts:
- google1623327_student@qwiklabs.net
```

You can list the project ID with this command:

```
gcloud config list project
```

(Output)

```
[core]
project = <project ID>
```

(Example output)

```
[core]
project = qwiklabs-gcp-44776a13dea667a6
```

For full documentation of `gcloud` see the [gcloud command-line tool overview](#).

# Download the DLP API

Let's download the DLP API files. Run the following command in Cloud Shell to clone the [Node JS DLP repo](https://github.com/googleapis/nodejs-dlp):

```
git clone https://github.com/googleapis/nodejs-dlp.git
```

Go ahead and set the environment variable `G_CLOUD_PROJECT` to your Qwiklabs project ID:

```
export G_CLOUD_PROJECT=[YOUR_PROJECT_ID]
```

## Install dependencies

Now that we have our files downloaded and environment variable set, let's install the app's dependencies by running the following commands:

```
npm install --save @google-cloud/dlp  
npm install yargs
```

You may see some warnings in the gcloud console-you can ignore them.

# Inspect a string for sensitive information

Now that our dependencies are installed, let's use the DLP API to inspect a string for sensitive information.

Run the following command to go into the `nodejs-dlp/samples` directory:

```
cd nodejs-dlp/samples
```

Run the following command to inspect the string "My email address is joe@example.com." for sensitive information:

```
node inspectString.js $DEVSHHELL_PROJECT_ID "My email address is joe@example.com."
LIKELY 0 EMAIL_ADDRESS DICT_TYPE true
```

The usage for the `inspectString.js` file is as follows:

```
node inspectString.js my-project string minLikelihood maxFindings infoTypes
customInfoTypes includeQuote
```

More info can be found [here](#)

You should receive the following output:

```
[ { name: 'EMAIL_ADDRESS' } ]
true
Findings:
  Quote: joe@example.com
  Info type: EMAIL_ADDRESS
  Likelihood: LIKELY
```

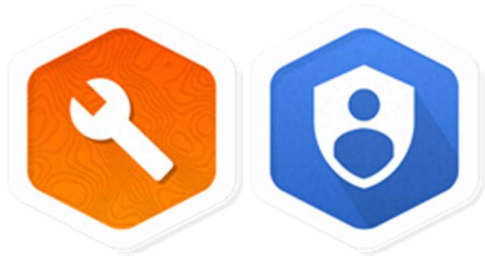
The result shows what the piece of sensitive data was found, what type of information it is, and how sure the API is that the string contains sensitive information.

You're welcome to try running additional tests in your remaining lab time. You can find a list of `dlp InfoTypes` like `PHONE_NUMBER` and `EMAIL_ADDRESS` [here](#).

The following are a couple samples to get you started:

- `node inspectString.js $DEVSHHELL_PROJECT_ID "My phone number is 555-555-5555" LIKELY 0 PHONE_NUMBER DICT_TYPE true`
- `node inspectString.js $DEVSHHELL_PROJECT_ID "My phone# is 555-555-5555" LIKELY 0 PHONE_NUMBER DICT_TYPE true`

# Congratulations!



## Finish Your Quest

This self-paced lab is part of the [Baseline: Deploy & Develop](#) and [Security & Identity Fundamentals](#). A Quest is a series of related labs that form a learning path. Completing this Quest earns you the badge above, to recognize your achievement. You can make your badge (or badges) public and link to them in your online resume or social media account. Enroll in this Quest and get immediate completion credit if you've taken this lab. [See other available Qwiklabs Quests](#).

## Take Your Next Lab

Continue your Quest with the next lab in your Quest , or check out these suggestions:

- [Getting Started with Cloud KMS](#)
- [Cloud Functions: Qwik Start - Command Line](#)

## Next Steps / Learn More

This lab is part of a series of labs called Qwik Starts. These labs are designed to give you a little taste of the many features available with Google Cloud. Search for "Qwik Starts" in the [lab catalog](#) to find the next lab you'd like to take!

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