

[Start Lab](#)

00:45:00

Stream Processing with Cloud Pub/Sub and Dataflow: Qwik Start

 Lab  30 minutes  No cost  Introductory**GSP903****Google Cloud Self-Paced Labs****Lab instructions and tasks**

GSP903

Overview

Setup

Task 1. Create project resources

Task 2. Review code to stream messages from Pub/Sub to Cloud Storage

Task 3. Start the pipeline

Task 4. Observe job and pipeline progress

Task 5. Cleanup

Congratulations!

Cloud Pub/Sub and Dataflow: Qwik Start

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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.

To complete this lab, you need:

- Access to a standard internet browser (Chrome browser recommended).

Note: Use an Incognito or private browser window to run this lab. This prevents any conflicts between your personal account and the Student account, which may cause extra charges incurred to your personal account.

- Time to complete the lab---remember, once you start, you cannot pause a lab.

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

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 the **Lab Details** panel with the following:

- The **Open Google Cloud console** button
- Time remaining
- The temporary credentials that you must use for this lab
- Other information, if needed, to step through this lab

2. Click **Open Google Cloud console** (or right-click and select **Open Link in Incognito Window** if you are running the Chrome browser).

The lab spins up resources, and then opens another tab that shows the **Sign in** page.

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

Note: If you see the **Choose an account** dialog, click **Use Another Account**.

3. If necessary, copy the **Username** below and paste it into the **Sign in** dialog.

"Username"



You can also find the **Username** in the **Lab Details** panel.

4. Click **Next**.

5. Copy the **Password** below and paste it into the **Welcome** dialog.

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Important: You must use the credentials the lab provides you. Do not use your Google Cloud account credentials.

Note: Using your own Google Cloud account for this lab may incur extra charges.

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charges. 4. With your job selected from the Dataflow Console, press the **Stop** button.

5. Click **Stop Job > Cancel** to cancel the pipeline without draining.

6. Delete the topic:

```
gcloud pubsub topics delete $TOPIC_ID
```



7. Delete the files created by the pipeline:

```
gsutil -m rm -rf "gs://${BUCKET_NAME}/samples/output*"  
gsutil -m rm -rf "gs://${BUCKET_NAME}/temp/*"
```



8. Remove the Cloud Storage bucket:

```
gsutil rb gs://${BUCKET_NAME}
```



Congratulations!

You created a Dataflow pipeline which read messages from your Pub/Sub topic, windowed them by timestamp, and wrote them to your cloud storage bucket.

Next step / learn more

- If you would like to window Pub/Sub messages by a custom timestamp, you can specify the timestamp as an attribute in the Pub/Sub message, and then use the custom timestamp with [PubsubIO's withTimestampAttribute](#).
- Learn about the [Beam programming model](#) used to write streaming and batch Dataflow jobs
- Check out these example Beam pipelines for streaming data into BigQuery: [Java](#), [Python](#).
- Take a look at Google's [open-source Dataflow templates designed for streaming](#).

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