Datastore: Qwik Start

GSP131

Overview

This hands-on lab will show you how to store and query data in Google Cloud Datastore using the Google Cloud.

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

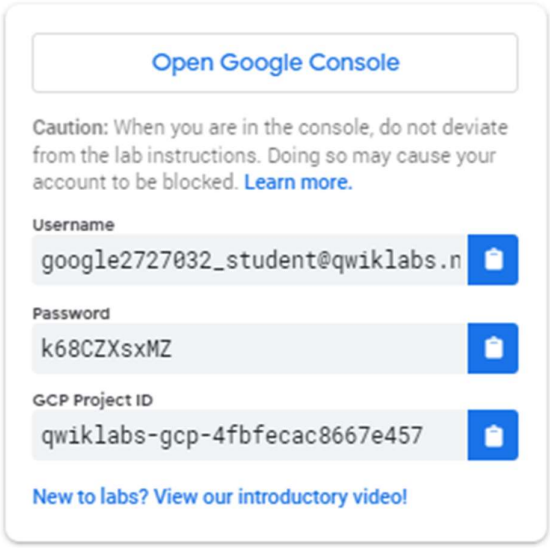
To complete this lab, you need:

- 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.

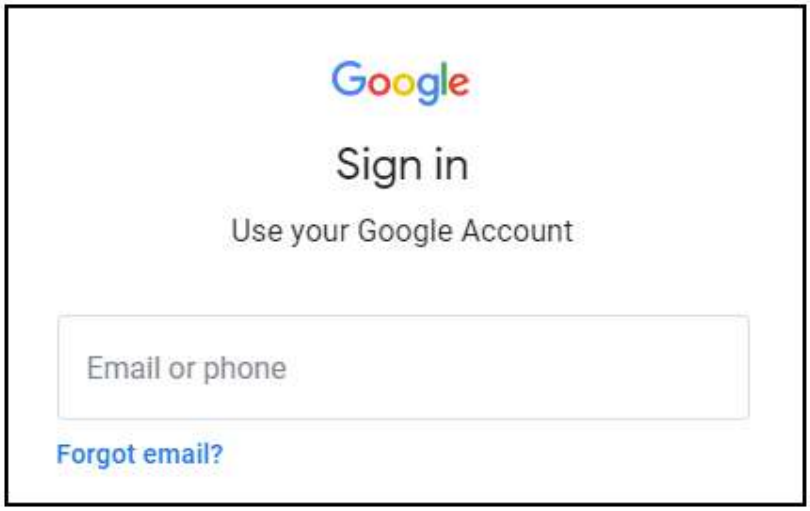
Note: If you are using a Pixelbook, open an Incognito window to run this lab.

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.

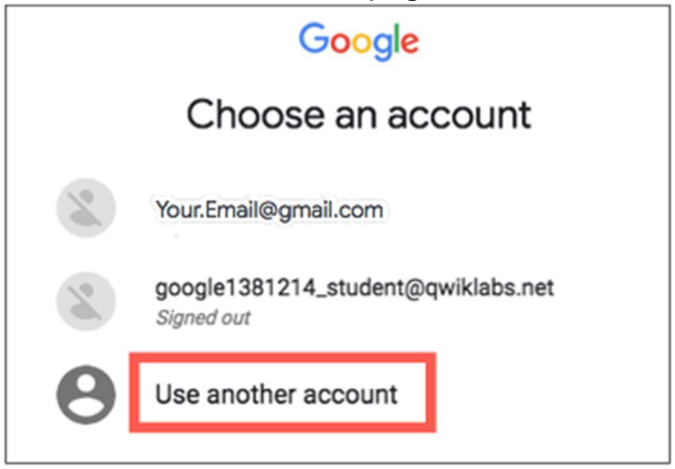


2. Copy the username, and then click **Open Google Console**. The lab spins up resources, and then opens another tab that shows the **Sign in** page.



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.

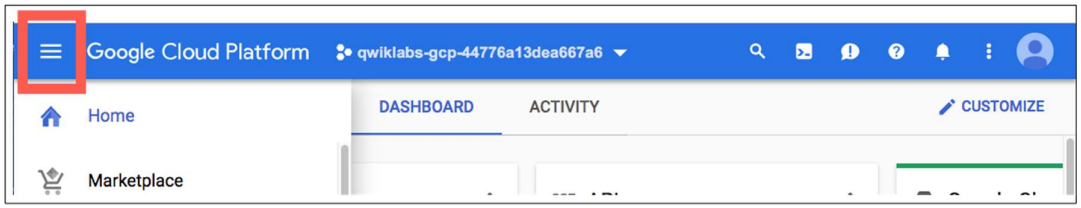
   Important: You must use the credentials from the Connection Details panel. Do not use your Qwiklabs credentials. If you have your own Google Cloud account, do not use it for this lab (avoids incurring charges).

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.

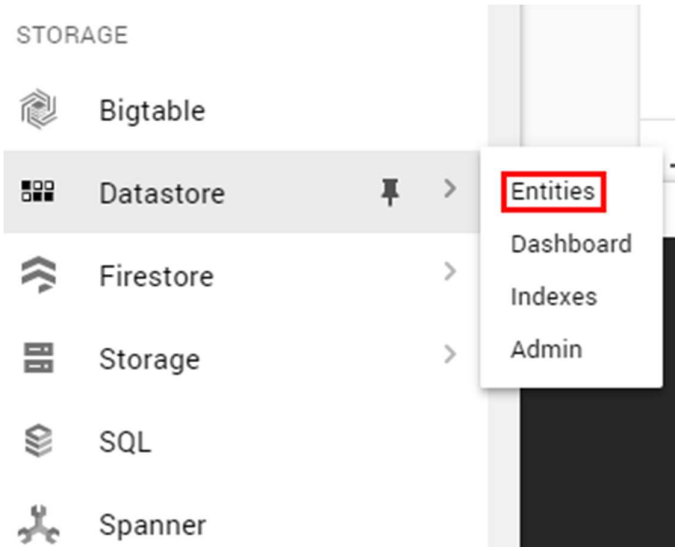
After a few moments, the Cloud Console opens in this tab.

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

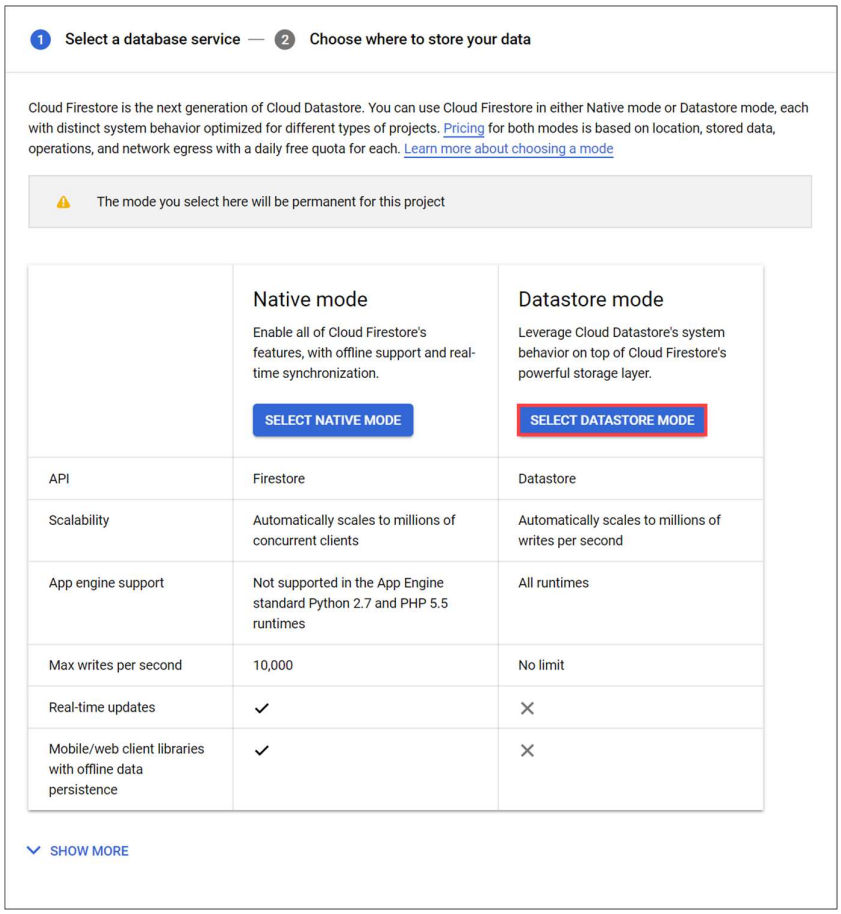


Store data

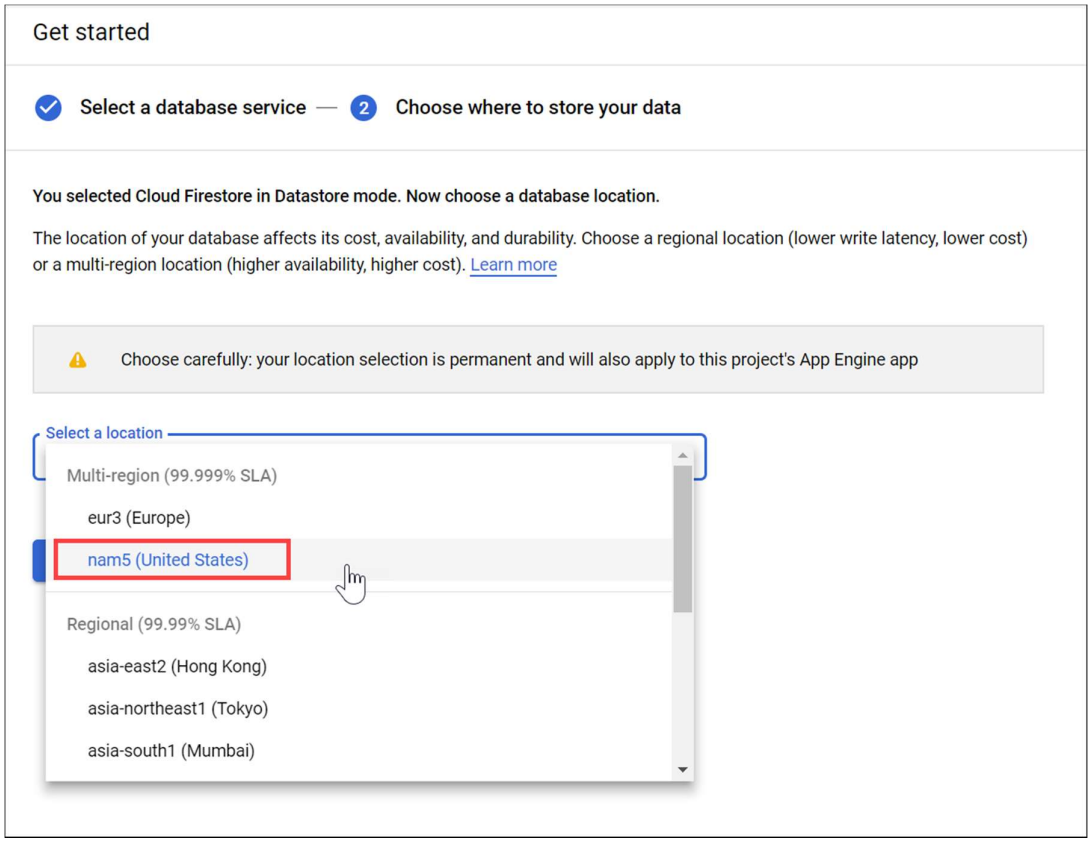
In left menu on the Console, Storage section, go to **Datastore** > **Entities**.



Under the Datastore mode column, click **Select Datastore Mode**.



Now choose where you'll create your database. Use the dropdown menu to select a location:



The location applies to both Cloud Datastore and App Engine for your Google Cloud project. You cannot change the location after it has been saved.

Click **Create database**.

Click **Create Entity**.

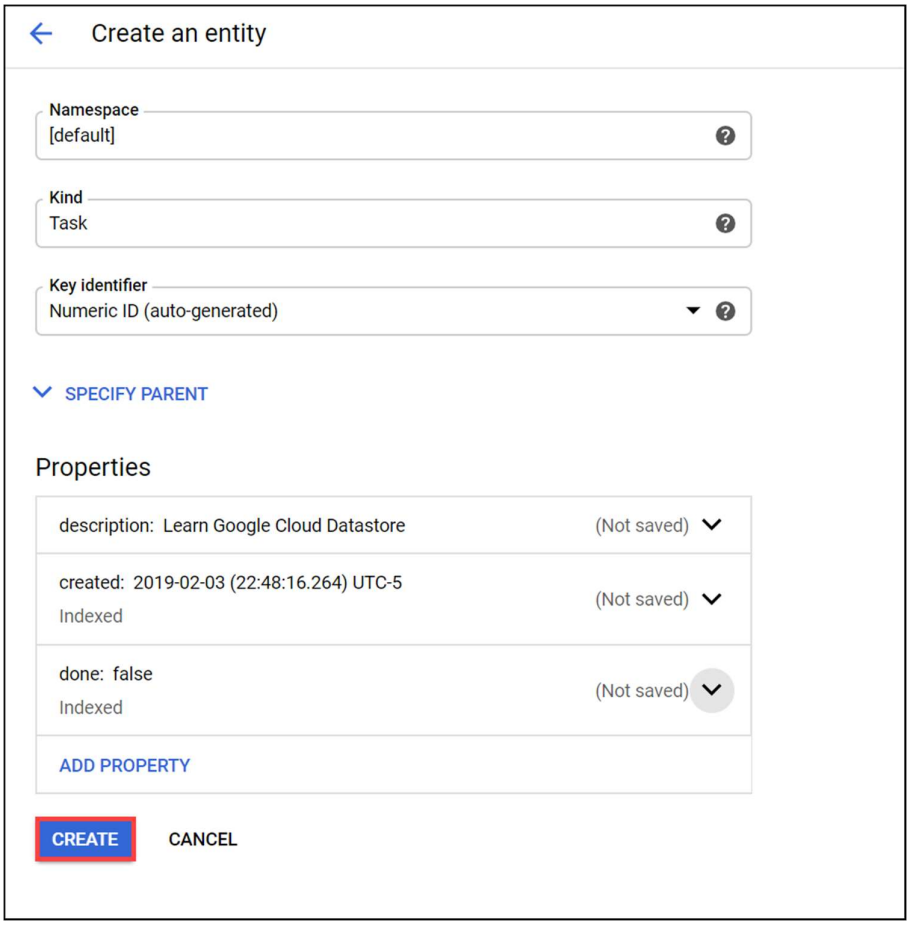
On the **Create an entity** page, use `[default]` for **Namespace**.

Type `Task` for **Kind**.

Under **Properties** use the **Add property** button to add these properties, and click **Done** after each one:

Name	Type	Value	Indexed
description	String	Learn Google Cloud Datastore	×
created	Date and time	(today's date)	✓
done	Boolean	False	✓

Your creation page should now look like this:



Click **Create**. The console displays the Task entity that you just created.

You just stored data in Cloud Datastore!

Test Completed Task

Click **Check my progress** to verify your performed task. If you have completed the task successfully you will granted with an assessment score.

Run a query

Cloud Datastore supports querying data by kind or by Google Query Language (GQL); the instructions below walk you through the steps of doing both.

Run kind queries

1. Click **Query by kind**.
2. Select `Task` as the kind.

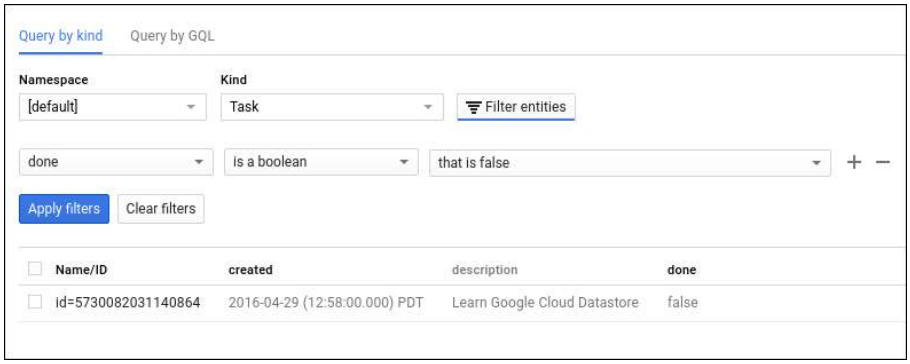
The query results show the Task entity that you created.

Next, add a query filter to restrict the results to entities that meet specific criteria:

1. Click **Filter entities** tab.

2. In the dropdown lists, select `done`, **is a boolean**, and **that is false**.

3. Click **Apply filters**. The results show the `Task` entity that you created, since its `done` value is `false`.



4. Now try a query of `done`, **is a boolean**, and **that is true** then **Apply filters**. The results do not include the `Task` entity that you created, because its `done` value is not `true`.

Run GQL queries

1. Click the **Query by GQL** tab.

2. In the query box add the following:

```
SELECT * FROM Task
```

Note that `Task` is case sensitive.

3. Click **Run query**.

The query results show the Task entity that you created.

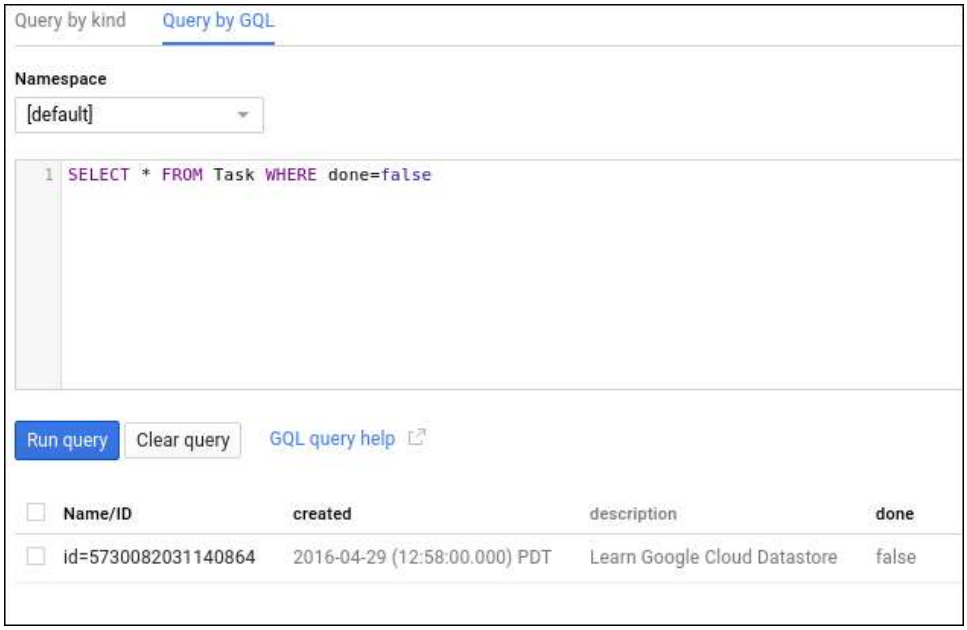
Tip: The GQL query editor supports autocompletion for kinds: When you need to type a kind name, press Ctrl+Space to see a list of the available kinds. Up to 300 alphabetically sorted kinds can appear in the list. For better matches of kinds, type one or more characters.

Now add a query filter to restrict the results to entities that meet specific criteria:

Run this query:

```
SELECT * FROM Task WHERE done=false
```

Note that `Task` and `done` are case sensitive. The results show the Task entity that you created, since its `done` value is `false`.



Now run this query:

```
SELECT * FROM Task WHERE done=true
```

The results do not include the `Task` entity that you created, because its `done` value is not `true`.

Test your Understanding

Below are multiple-choice questions to reinforce your understanding of this lab's concepts. Answer them to the best of your abilities.

Google Cloud Datastore is a NoSQL document database built for automatic scaling, high performance, and ease of application development.
True

Cloud Datastore is a relational database, and it is an effective storage solution for analytic data.
False

Congratulations!

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Next Steps / Learn More

This lab is also 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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Manual Last Updated May 22, 2019
Lab Last Tested May 22, 2019