

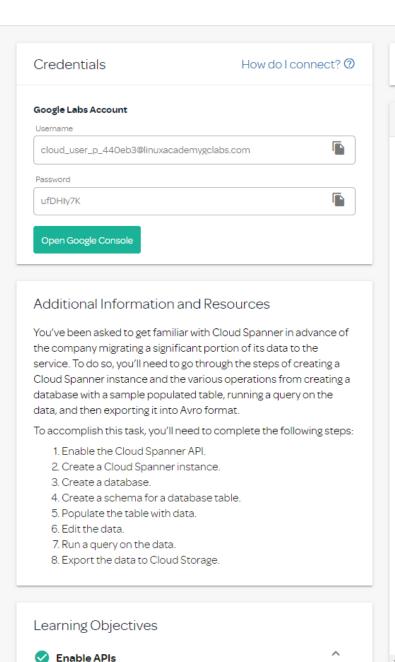
We are aware of an ongoing issue concerning Course Progress and Recent Courses. We are working to correct this. Your correct Recent Course can be viewed by clicking Show All Recent Courses. The progress shown in Recent Courses is the correct progress. The progress shown on the Syllabus page may not reflect the correct amount at this time.

Setting Up for Google Cloud Spanner

(1) 117 Min. Remaining







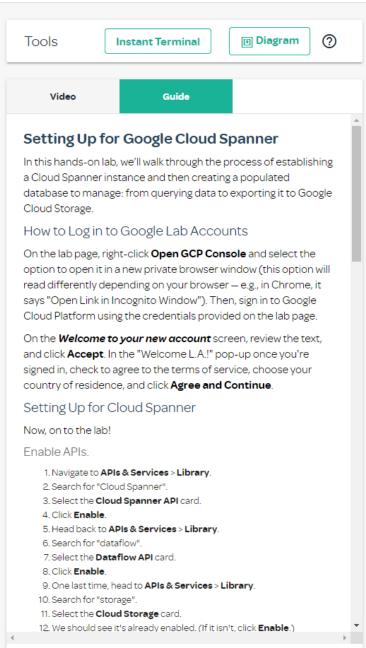
1. From the Google Cloud console navigation, choose APIs &

4. Click Enable when the API page for Cloud Spanner appears.

Libraries > Libraries.

2. Search for Cloud Spanner.

3. Select the Cloud Spanner card.



Create a Cloud Spanner Instance

- From the main navigation, choose Spanner in the Storage section.
- 2. Click Create instance.
- 3. Provide the following details:
 - Name: la-spanner
 - Configuration: Regional us-central1
 - Node:1
- 4. Click Create.

Create Database and Table

- 1. Click Create database.
- 2. Name the database.
- 3. Click Continue.
- 4. In the Define the database schema section, click Edit as Text.
- 5. Enter the following code:

```
CREATE TABLE Artists (
ArtistId INT64 NOT NULL,
FirstName STRING(1024),
LastName STRING(1024),
ArtistInfo BYTES(MAX),
BirthDate DATE )
PRIMARY KEY(ArtistId);
```

6. Click Create.

Populate Table

- 1. Select Artists in left sidebar.
- 2. Review the schema.
- 3. Click Data.
- Click Insert
- Enter the following records, clicking Save after each one and then Insert:

```
ArtistId = 100

FirstName = Paul

LastName = Cezanne

BirthDate = 1839-01-19

ArtistId = 101

FirstName = Ansel

LastName = Adams

BirthDate = 1902-02-20

ArtistId = 102

FirstName = Frida

LastName = Kahloe

BirthDate = 1907-07-06
```

Edit Data

- 1. Select the checkbox in the Frida Kahloe record.
- 2. Choose Edit.
- 3. Change the LastName to Kahlo.
- 4. Click Save.

Query Data

- 1. Choose the database from the left column.
- 2. Select Query.
- 3. In the **Query** field, enter:

SELECT * from Artists WHERE BirthDate > '1900-01-01'

- 4. Click Run query.
- 5. Review results.

Create Bucket and Export Data

- 1. Navigate to Storage.
- 2. Click Create Bucket.
- 3. Provide the following details:
 - Name: la-spanner-export- (must be unique across all Cloud Storage)
 - Default storage class: Regional
 - Location: us-central1
- 4. Click Create.
- 5. Navigate back to **Spanner**.
- 6. Choose instance from left sidebar.
- 7. Select Export.
- 8. Select bucket to store exported data.
- 9. Choose database to export.
- 10. Select region.
- 11. Click Confirm Charges checkbox.
- 12. Click Export
- 13. Visit Cloud Spanner to view progress of operation.
- 14. Visit Cloud Storage bucket to confirm operation.