

Hands-on Lab: Create Tables and Load Data in Datasette



Estimated time needed: 20 minutes

In this lab, you will learn how to create tables and load data in Datasette.

Objectives

After completing this lab, you will be able to:

- Create and load data into a table from a CSV file
- Create and load data into a table from a SQL script file

Prerequisites

In this lab, you will use [Datasette](#), an open-source multi-tool for exploring and publishing data.

Datasets

PETSHOP and BookShop are the two data sets you will use in this lab.

- PETSHOP:

| ID | ANIMAL |
|----|----------|
| 1 | Cat |
| 2 | Dog |
| 3 | Parrot |
| 4 | Hamster |
| 5 | Goldfish |

- BookShop:

| BOOK_ID | TITLE | AUTHOR |
|---------|-------------------------------------------------|------------|
| B101 | Introduction to Algorithms | Thomas H |
| B201 | Structure and Interpretation of Computer Pro... | Harold Ab |
| B301 | Deep Learning | Ian Goodf |
| B401 | Algorithms Unlocked | Thomas H |
| B501 | Machine Learning: A Probabilistic Perspective | Kevin P. M |

Exercise 1: Load a CSV file and create a table using the Datasette tool

In this exercise, you will learn how to load a CSV file and create a table using the Datasette tool.

1. First, select **Open tool**, then click the **Navigation Pane** at the right-end corner, and then select **Add DataSets**.

The screenshot shows the 'Add a Dataset' interface. At the top, there's a navigation bar with 'Skills Network Labs' and a 'home' link. The main section has a heading 'Add a Dataset' and instructions: 'To add a dataset into your lab, insert the link to the full URL to the CSV dataset below.' Below this is a text input field labeled 'Full URL to Dataset' containing the URL 'https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/Example/datasets/Example.csv'. There is also a blue 'Create' button. At the bottom, it says 'Powered by Datasette'.

2. You will then be redirected to a page where you need to enter the full URL of the CSV data set in the text box.

- o Right-click the link [PETSHOP.csv](#) and copy the link address. Enter the copied URL in the text box and select the **create** button.

The screenshot shows the 'Add a Dataset' interface again. The 'Full URL to Dataset' input field now contains the URL 'https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBM-DB0110EN-SkillsNetwork/datasets/PET_Tables/PETSHOP.csv', which is highlighted with a red box. Below the input field is a blue 'Create' button. The page is branded with 'Skills Network Labs' and 'Powered by Datasette'.

3. The data loaded from the CSV file will create the PETSHOP table. By default, a **SELECT** query related to the table will appear on the **text area** section of the following webpage. Click **Submit Query** to view the results.

Database: PETSHOP

SELECT * FROM PETSHOP;

Tip: Autocomplete with Ctrl+Enter or Cmd+Enter

Results

All commands ran successfully

SELECT * FROM PETSHOP

| ID | ANIMAL | SALEPRICE | SALEDATE | QUANTITY |
|----|--------|-----------|------------|----------|
| 1 | Cat | 450.09 | 2018-05-29 | 9 |
| 2 | Dog | 666.66 | 2018-06-01 | 3 |

4. Next, modify the **SELECT** query as follows:

select count(*) from PETSHOP

Once you have completed this step, you should see all five rows of the PETSHOP table.

Database: PETSHOP

SELECT count(*) FROM PETSHOP;

Tip: Autocomplete with Ctrl+Enter or Cmd+Enter

Results

All commands ran successfully

SELECT count(*) FROM PETSHOP

count(*)

5

5. You have successfully created and loaded the PETSHOP table.

Exercise 2: Create and load data in the table using an SQL script file

In this exercise, you will learn how to create and load data into a table by running a script containing the CREATE and INSERT SQL commands.

1. Download the script file to your computer:

- o [BookShop-CREATE-INSERT.sql](#)

- Copy the contents of the script file and paste it in the datasette text area
- Select Submit query

Skills Network Labs

home / PETSHOP

Practice SQL

Database: PETSHOP

```
-- Drop the tables in case they exist
DROP TABLE IF EXISTS BookShop;
DROP TABLE IF EXISTS BookShop_AuthorDetails;

-- Create the table
```

Tip: Autocomplete with Ctrl+Enter or Cmd+Enter

Submit query

Results

All commands ran successfully

3. Next, click the **home** link at the top of the page.

Skills Network Labs

home PETSHOP

Practice SQL

Database: PETSHOP

```
-- Drop the tables in case they exist
DROP TABLE IF EXISTS BookShop;
DROP TABLE IF EXISTS BookShop_AuthorDetails;

-- Create the table
```

Tip: Autocomplete with Ctrl+Enter or Cmd+Enter

Submit query

Results

All commands ran successfully

4. This step will redirect you to a page displaying **Databases and Tables**.

- o Select the **BookShop** table under the **PetShop** database.

Datasette

memory

0 tables

internal

92 rows in 5 tables

[columns](#), [foreign_keys](#), [tables](#), [indexes](#), [databases](#)

Instructors

12 rows in 3 tables

[BookShop](#), [BookShop_AuthorDetails](#), [Instructor](#)

PETSHOP

10 rows in 2 tables

[PETSHOP](#) [BookShop](#)

Powered by Datasette

5. You will be able to view the **columns** and **data** of the **Bookshop** table.

BookShop

5 rows

- column - =

Apply

View and edit SQL

This data as [json](#), [CSV](#) (advanced)

Suggested facets: [AUTHOR_NAME](#), [AUTHOR_BIO](#), [AUTHOR_ID](#), [PUBLICATION_DATE](#) (date)

Show charting options

| Link | rowid | BOOK_ID | TITLE | AUTHOR_NAME | AUTHOR_BIO | AUTHOR_ID | PUBLICA |
|------|-------|---------|---------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------|
| 1 | 1 | B101 | Introduction to Algorithms | Thomas H. Cormen | Thomas H. Cormen is the co-author of Introduction to Algorithms, along with Charles Leiserson, Ron Rivest, and Cliff Stein. He is a Full Professor of computer science at Dartmouth College and currently Chair of the Dartmouth College Writing Program. | 123 | 2001-09 |
| 2 | 2 | B201 | Structure and Interpretation of Computer Programs | Harold Abelson | Harold Abelson, Ph.D., is Class of 1922 Professor of Computer Science and Engineering in the Department of Electrical Engineering and Computer Science at MIT and a fellow of the IEEE. | 456 | 1996-07 |

Congratulations! You have completed this lab and are ready for the next topic.

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