

# Delta Lake Hands-on Walkthrough



# Start with Databricks Community Edition



# Databricks Community Edition

Databricks Community Edition is the free version of our cloud-based big data platform.

- Users can access a micro-cluster as well as a cluster manager and notebook environment.
- All users can share their notebooks and host them free of charge with Databricks.



Sign up for  
Databricks Community Edition

Go to:

[databricks.com/try](https://databricks.com/try)

and choose Community Edition



# https://databricks.com/try-databricks

## Try Databricks for free

An open and unified data analytics platform for data engineering, data science, machine learning, and analytics. From the original creators of Apache Spark™, Delta lake, MLflow, and Koalas.



### Databricks trial:

- Collaborative environment for data teams to build solutions together.
- Interactive notebooks to use Apache Spark™, SQL, Python, Scala, Delta Lake, MLflow, TensorFlow, Keras, Scikit-learn and more.
- Available as a 14-day full trial in your own cloud, or as a lightweight trial hosted by Databricks.

### Used by:



### Please tell us about yourself

**First Name: \***

**Last Name: \***

**Company \***

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☒ Keep me informed with occasional updates about Databricks and related open source products

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GET STARTED FOR FREE





## Choose a cloud provider

 Amazon Web Services

 Microsoft Azure

 Google Cloud Platform

Get started

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### Don't have a cloud account?

Community Edition is a limited Databricks environment for personal use and training.

[Get started with Community Edition](#)

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## Choose a cloud provider

 Amazon Web Services

# Verification

Please solve this puzzle so we know you are a real person

Verify



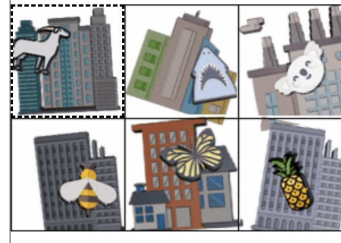
Get more cloud credits

Community Edition is a limited Databricks

## Choose a cloud provider

 Amazon Web Services

Pick the goat



Get more cloud credits

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# Time to check your email!


Thank you for signing up. Now it's time to validate your email address.  
Please check the email you provided for next steps.

**CONFIRM the link in your email and then head back to sign in**







# https://community.cloud.databricks.com/

 **databricks**  
Community Edition

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# Welcome to databricks®



## Explore the Quickstart Tutorial


Spin up a cluster, run queries on preloaded data, and display results in 5 minutes.

Drop files or [click to browse](#)



## Import & Explore Data


Quickly import data, preview its schema, create a table, and query it in a notebook.





## Create a Blank Notebook


Create a notebook to start querying, visualizing, and modeling your data.


Common Tasks


 New Notebook


 Create Table

 New Cluster

 New Job

 New MLflow Experiment

 Import Library

 Read Documentation

Recents

Recent files appear here as you work.

What's new in v3.17

[View latest release notes](#)



community.cloud.databricks.com/?o=501894578362473#create/cluster

Create Cluster

New Cluster

Cancel

Create Cluster

0 Workers:0 GB Memory, 0 Cores, 0 DBU

1 Driver:15.3 GB Memory, 2 Cores, 1 DBU

Cluster name

test

Databricks runtime version

Runtime: 9.1 LTS (Scala 2.12, Spark 3.1.2)

Instance

Free 15 GB Memory: As a Community Edition user, your cluster will automatically terminate after an idle period of two hours. For more configuration options, please upgrade your Databricks subscription.

Instances

Spark

Availability zone

auto

The Databricks logo, which is a stylized blue 'A' shape with a white outline, positioned in the bottom left corner of the image.

# HoL Notebooks

[https://delta-lab-public.s3.us-west-2.amazonaws.com/Demo\\_+Diving+Into+Delta+Lake+-+Data+Council+Austin+2022.html](https://delta-lab-public.s3.us-west-2.amazonaws.com/Demo_+Diving+Into+Delta+Lake+-+Data+Council+Austin+2022.html)

OR

**<https://tinyurl.com/delta-dc22>**



Databricks Community Edition

01-Delta Lake Workshop - Delta Lake Lab

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Import & Explore Data

Quickly import data, preview its schema, create a table, and query it in a notebook.

Create a Blank Notebook

Create a notebook to start querying, visualizing, and modeling your data.

Recents

Video Identification of Suspicious Behavior

What's new in v2.100

Databricks Light GA

[View latest release notes](#)

https://community.cloud.databricks.com/?o=57901#





## Import Notebooks

Import from: ☐ File ☒ URL

s.com/Demo\_+Diving+Into+Delta+Lake+--+Data+Council+Austin+2022.html

Accepted formats: .dbc, .scala, .py, .sql, .r, .ipynb, .Rmd, .html, .zip ?

(To import a library, such as a jar or egg, [click here](#))

Cancel Import

Use the full qualified URL

[https://delta-lab-public.s3.us-west-2.amazonaws.com/Demo\\_+Diving+Into+Delta+Lake+--+Data+Council+Austin+2022.html](https://delta-lab-public.s3.us-west-2.amazonaws.com/Demo_+Diving+Into+Delta+Lake+--+Data+Council+Austin+2022.html)



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01-Delta Lake Workshop - Delta Lake

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Import Notebooks

Import from: ☐ File ☒ URL

iges/01-Delta%20Lake%20Workshop%20-%20Delta%20Lake%20Primer.html

Accepted formats: .dbc, .scala, .py, .sql, .r, .ipynb, .Rmd, .html

(To import a library, such as a jar or egg, [click here](#))

Cancel

Import

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# Demo: Diving Into Delta Lake - Data Council Austin 2022 Python

Detached File Edit View: Standard Permissions Run All Clear Publish Comments Experiment Revision history

## Welcome to Data Council 2022



### Workshop: Building Lakehouse with Delta Lake

The data used is a modified version of the public data from [Lending Club](#). It includes all funded loans from 2012 to 2017. Each loan includes applicant information provided by the applicant as well as the current loan status (Current, Late, Fully Paid, etc.) and latest payment information. For a full view of the data please view the data dictionary available [here](#).

### Steps to run this notebook

You can run this notebook in a Databricks environment. Specifically, this notebook has been designed to run in [Databricks Community Edition](#) as well. To run this notebook, you have to [create a cluster](#) with version **Databricks Runtime 7.4 or later** and [attach this notebook](#) to that cluster.

## Setup

```
1 import random
2 from datetime import datetime
3 from pyspark.sql.functions import *
4 from pyspark.sql.types import *
5
6
7 def my_checkpoint_dir():
8     return "/tmp/delta_demo/chkpt/%s" % str(random.randint(0, 10000))
9
10 # User-defined function to generate random state
```