

Open in app ↗



Search

Write



# SQL Variables in Databricks



Ryan Chynoweth

2 min read · Oct 6, 2023



21



Last December we published a blog providing an overview of [Converting Stored Procedures to Databricks](#). In that blog we showed that users could set and use variables with the following example.

## Setting Variables

```
CREATE WIDGET TEXT CostCenter DEFAULT '';  
  
SET var.year_variable = YEAR(CURRENT_DATE());  
  
SET var.total_qty = (  
    SELECT sum(qty)  
    FROM my_schema.my_staging_source_table  
    WHERE YEAR(ModifiedDate) = ${var.year_variable} and CostCenter = $CostCenter;  
);  
  
CREATE TABLE my_schema.cost_center_qty_agg  
AS  
WITH cte as (  
    SELECT year, sum(qty) as summed_qty  
    FROM my_schema.my_staging_source_table  
    WHERE CostCenter = $CostCenter  
    GROUP BY YEAR
```

```
)  
  
SELECT *  
FROM cte  
WHERE summed_qty > ${var.total_qty} ;
```

In the above code, I am making use of the `year_variable` variable. This was a slight workaround previously and followed an odd syntax with using `${var.variable_name}`. This workaround did not work in the Databricks SQL interface and only in the notebooks. So now that we have the official implementation, users can leverage variables regardless of execution environment. Please note that 14.1 is currently the latest runtime and may not be deployed in Databricks SQL current channel at this time.

Fortunately, with the introduction of Databricks Runtime 14.1, variables are now fully supported! To gain a deeper understanding of this feature, please refer to our [documentation](#). Here is a refactored version of the above query using the new syntax.

```
CREATE WIDGET TEXT CostCenter DEFAULT '';  
  
DECLARE VARIABLE year_variable TIMESTAMP;  
DECLARE VARIABLE total_qty DOUBLE;  
  
SET var year_variable = YEAR(CURRENT_DATE());  
  
SET var total_qty = (  
    SELECT sum(qty)  
    FROM my_schema.my_staging_source_table  
    WHERE YEAR(ModifiedDate) = year_variable and CostCenter = $CostCenter;  
);  
  
CREATE TABLE my_schema.cost_center_qty_agg  
AS  
WITH cte as (  
    SELECT year, sum(qty) as summed_qty
```

```
FROM my_schema.my_staging_source_table
WHERE CostCenter = $CostCenter
GROUP BY YEAR
)
SELECT *
FROM cte
WHERE summed_qty > total_qty ;
```

Please note that syntax for using the variable. For example, in one of the where clauses you see `YEAR(ModifiedDate) = year_variable` in which we use the `year_variable` variable. I am very excited to see this feature released! Happy coding everyone!

*Disclaimer: these are my own thoughts and opinions and not a reflection of my employer*

Databricks

Databricks Sql

Sql



Written by Ryan Chynoweth

Edit profile

312 Followers

Senior Solutions Architect Databricks — anything shared is my own thoughts and opinions

More from Ryan Chynoweth



Open standard for secure data sharing  
Industry's first open protocol for secure data sharing, making it easier for organizations regardless of which computing platform

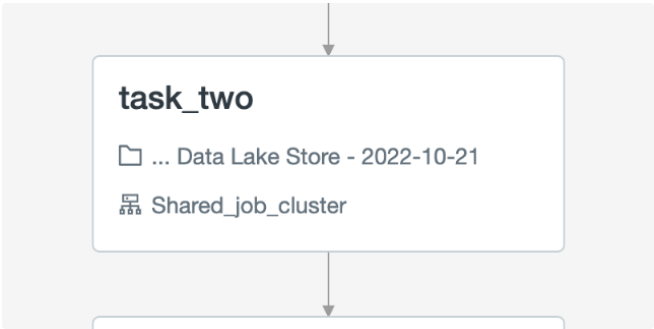
 Ryan Chynoweth

Delta Sharing: An Implementation Guide for Multi-Cloud Architecture

Introduction

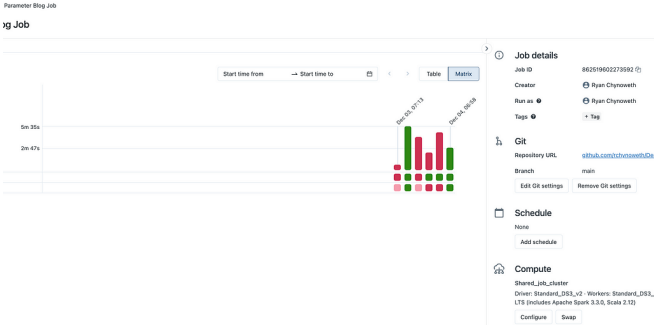
8 min read · 3 days ago

 3    2      



 Ryan Chynoweth

Converting Stored Procedures to Databricks



 Ryan Chynoweth

Task Parameters and Values in Databricks Workflows

Databricks provides a set of powerful and dynamic orchestration capabilities that are...

11 min read · Dec 7, 2022

 50    3      



 Ryan Chynoweth

Recursive CTE on Databricks

Introduction

Special thanks to co-author Kyle Hale, Sr.  
Specialist Solutions Architect at Databricks.

14 min read · Dec 29, 2022

3 min read · Apr 20, 2022



116



5



33



See all from Ryan Chynoweth

## Recommended from Medium



Daan Rademaker

## Do-it-yourself, building your own Databricks Docker Container

In my previous LinkedIn article, I aimed to persuade you of the numerous advantages o...

7 min read · Oct 16, 2023



26



Manasreddy

## How to pass: Databricks Data Engineer Professional Certification

Conquering the Databricks Data Engineer Professional Exam: A Definitive Guide

3 min read · Aug 24, 2023



8

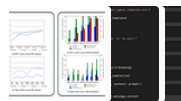


### Lists



#### ChatGPT

23 stories · 371 saves



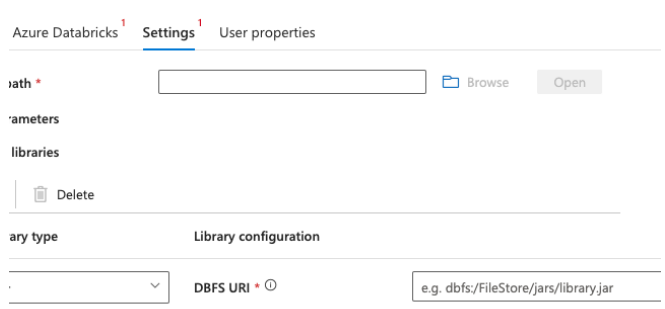
#### Natural Language Processing

1053 stories · 530 saves



SIRIGIRI HARI KRISHNA in Towards Dev

## Auto Loader



Matt Bradley

Autoloader simplifies reading various data file types from popular cloud locations like...

5 min read · Dec 9, 2023



4



1



Eduardo Senior

## REST API Data Ingestion with PySpark

Putting executors to work.

6 min read · Oct 5, 2023



231



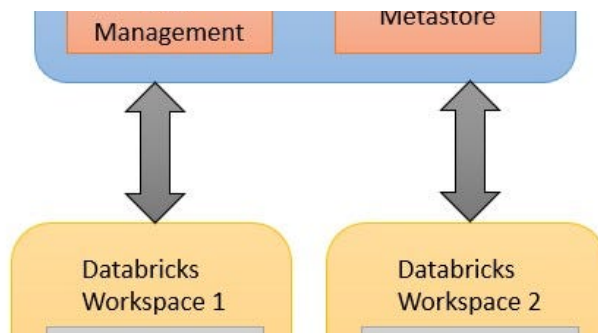
## Azure Data Factory tips for running Databricks jobs

Following on from an earlier blog around using spot instances with Azure Data...

4 min read · Nov 2, 2023



14



Oindrila Chakraborty

## Introduction to “Unity Catalog” in Databricks

What is “Unity Catalog”?

10 min read · Aug 14, 2023



18



2



See more recommendations