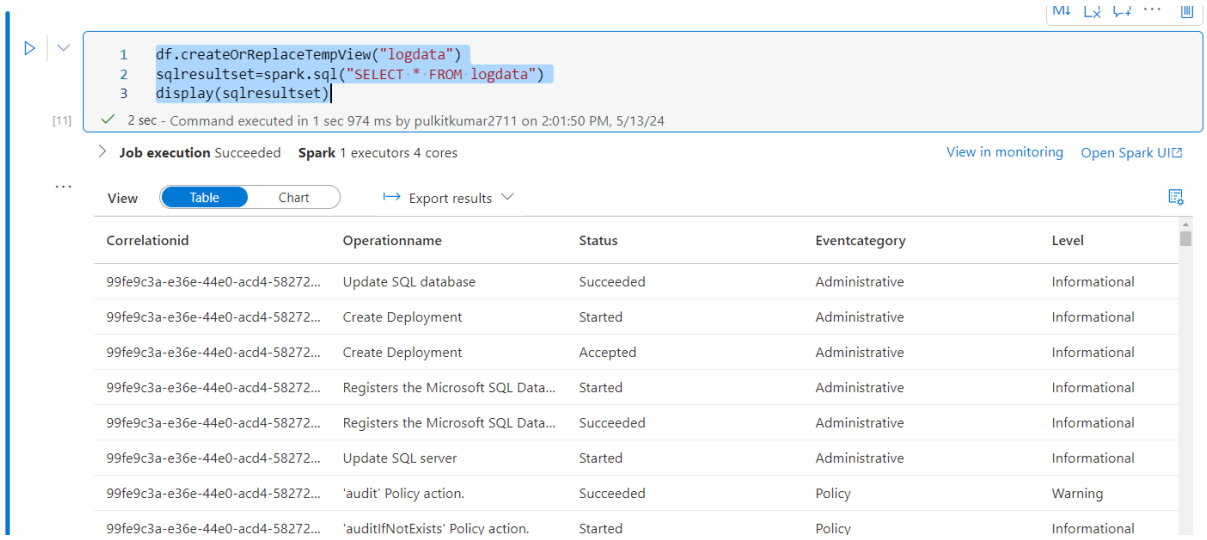
😊 Creating a Temporary View

In this lab, we're leveraging SQL-based operations within our Spark Pool by creating temporary views. The primary objective is to facilitate data querying and analysis using familiar SQL syntax directly within the Spark environment. By creating temporary views, we can manipulate and query our data in a tabular format, enabling easier exploration and understanding of the dataset. Additionally, we showcase the flexibility of the notebook environment by seamlessly switching between different languages, such as SQL and Python, within the same notebook, thereby enhancing the overall data analysis capabilities within Azure Synapse Analytics.

1. In this lab we try and execute the SQL-based statements in our Spark Pool.
2. For that you can create something known as a Temporary view.
3. Below you can see that we used SQL statement to view our data in tabular format.



```
1  df.createOrReplaceTempView("logdata")
2  sqlresultset=spark.sql("SELECT * FROM logdata")
3  display(sqlresultset)
```

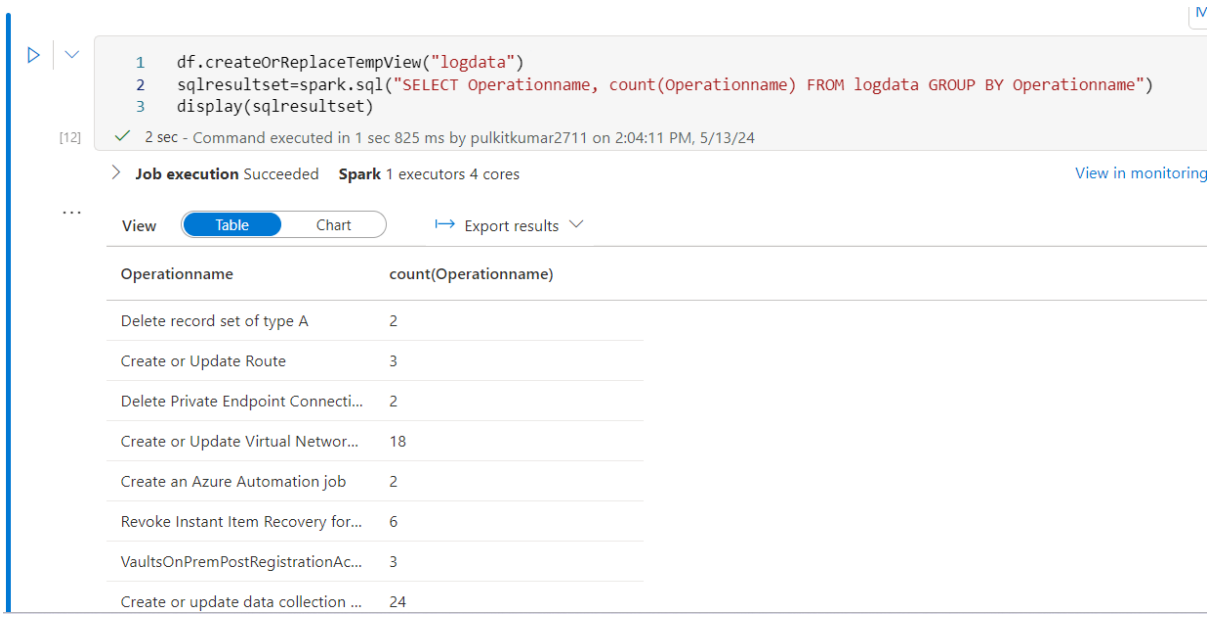
[11] ✓ 2 sec - Command executed in 1 sec 974 ms by pulkitkumar2711 on 2:01:50 PM, 5/13/24

Job execution Succeeded **Spark** 1 executors 4 cores — View in monitoring — Open Spark UI

View: Table | Chart — Export results

Correlationid	Operationname	Status	Eventcategory	Level
99fe9c3a-e36e-44e0-acd4-58272...	Update SQL database	Succeeded	Administrative	Informational
99fe9c3a-e36e-44e0-acd4-58272...	Create Deployment	Started	Administrative	Informational
99fe9c3a-e36e-44e0-acd4-58272...	Create Deployment	Accepted	Administrative	Informational
99fe9c3a-e36e-44e0-acd4-58272...	Registers the Microsoft SQL Data...	Started	Administrative	Informational
99fe9c3a-e36e-44e0-acd4-58272...	Registers the Microsoft SQL Data...	Succeeded	Administrative	Informational
99fe9c3a-e36e-44e0-acd4-58272...	Update SQL server	Started	Administrative	Informational
99fe9c3a-e36e-44e0-acd4-58272...	'audit' Policy action.	Succeeded	Policy	Warning
99fe9c3a-e36e-44e0-acd4-58272...	'auditIfNotExists' Policy action.	Started	Policy	Informational

4. Now you can see that we changes our Select statement and you can see that output.



```
1  df.createOrReplaceTempView("logdata")
2  sqlresultset=spark.sql("SELECT Operationname, count(Operationname) FROM logdata GROUP BY Operationname")
3  display(sqlresultset)
```

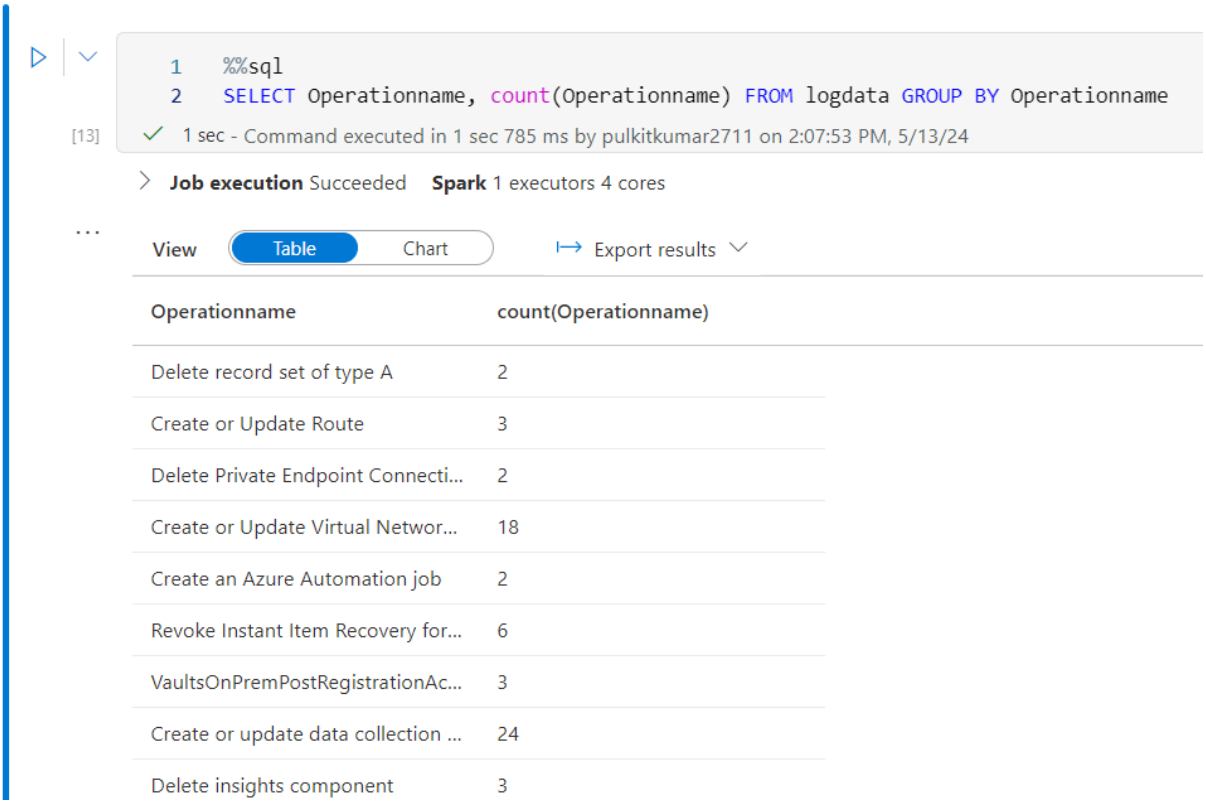
[12] ✓ 2 sec - Command executed in 1 sec 825 ms by pulkitkumar2711 on 2:04:11 PM, 5/13/24

Job execution Succeeded **Spark** 1 executors 4 cores — View in monitoring

View: Table | Chart — Export results

Operationname	count(Operationname)
Delete record set of type A	2
Create or Update Route	3
Delete Private Endpoint Connecti...	2
Create or Update Virtual Networ...	18
Create an Azure Automation job	2
Revoke Instant Item Recovery for...	6
VaultsOnPremPostRegistrationAc...	3
Create or update data collection ...	24

5. Then we created a new cell used the magic command to basically change the language of this particular cell and then ran it.
6. Below you can see that results accordingly.



```
%%sql
SELECT Operationname, count(Operationname) FROM logdata GROUP BY Operationname
```

[13] ✓ 1 sec - Command executed in 1 sec 785 ms by pulkitkumar2711 on 2:07:53 PM, 5/13/24

Job execution Succeeded **Spark** 1 executors 4 cores

View: Table | Chart — Export results

Operationname	count(Operationname)
Delete record set of type A	2
Create or Update Route	3
Delete Private Endpoint Connecti...	2
Create or Update Virtual Networ...	18
Create an Azure Automation job	2
Revoke Instant Item Recovery for...	6
VaultsOnPremPostRegistrationAc...	3
Create or update data collection ...	24
Delete insights component	3