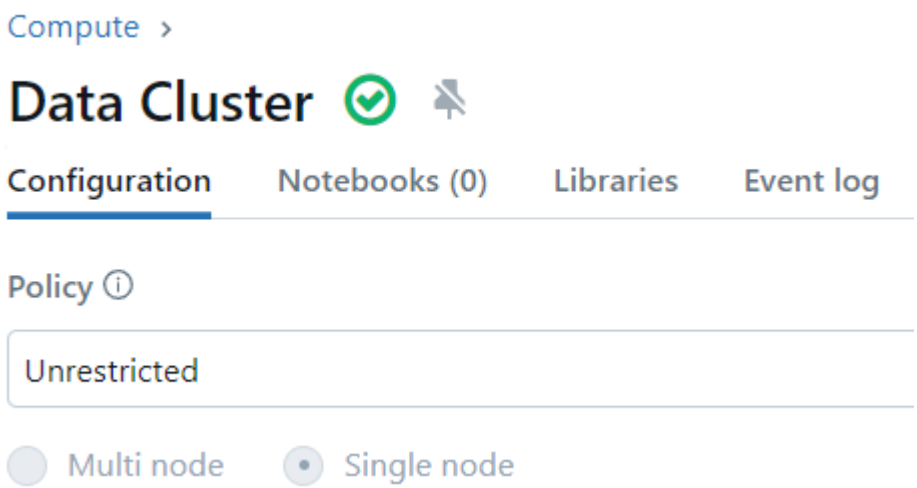
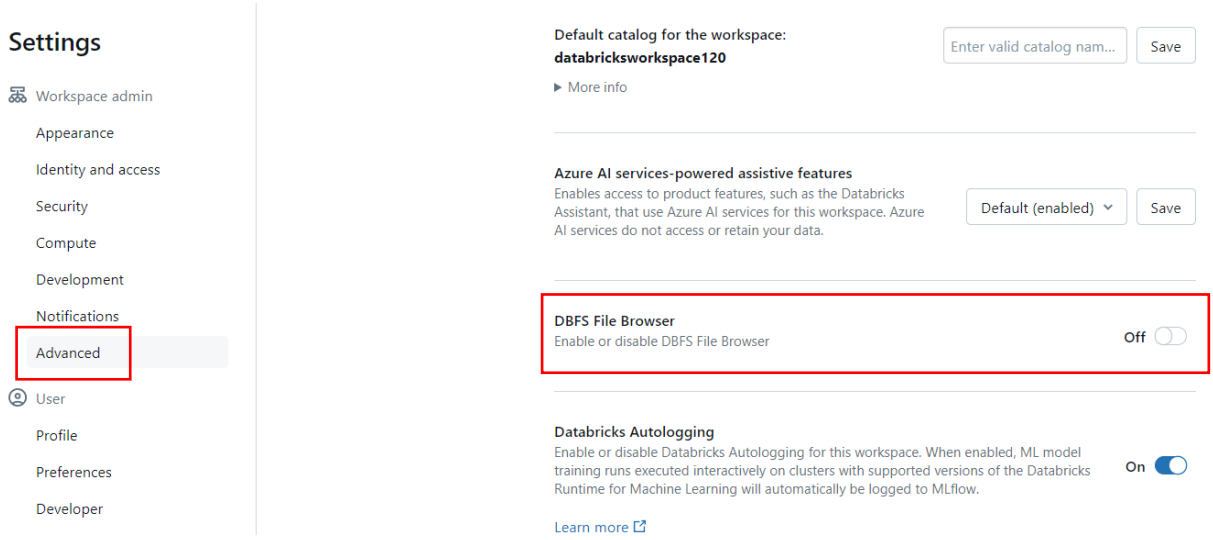
😊 Loading data from a file

In this tutorial, we're setting up a notebook in Azure Databricks to load data from a Parquet file. The end goal is to enable users to efficiently access and analyze data stored in the file within the Databricks environment. By following the steps outlined, users can seamlessly upload the file, write the necessary code in Scala to load the data and visualize it in a tabular format. Ultimately, this facilitates data exploration, analysis, and further processing within Azure Databricks.

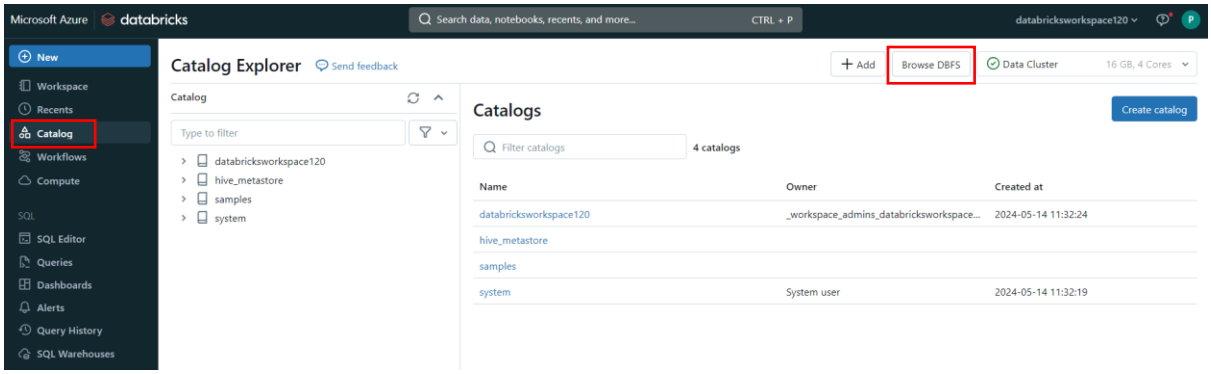
1. Once you have your cluster in place. Then you are going to create a notebook.



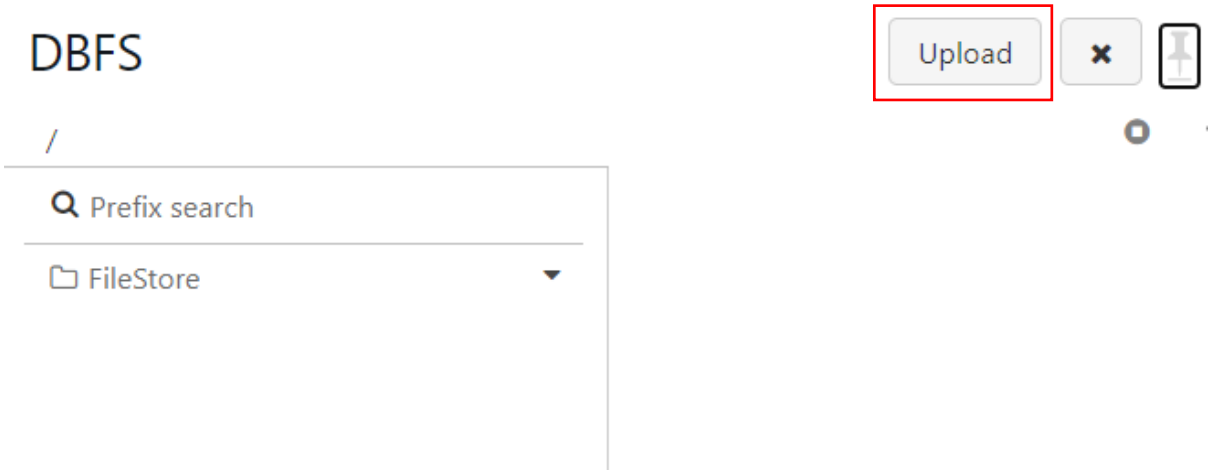
2. Before that you have to turn on a feature called DBFS file browser.
3. For that you need to open the settings in your workspace and then go to advanced and in there, you have to scroll down to the DBFS file browser.
4. Now you are going to turn on this feature. After enabling this feature you have to refresh the entire page.



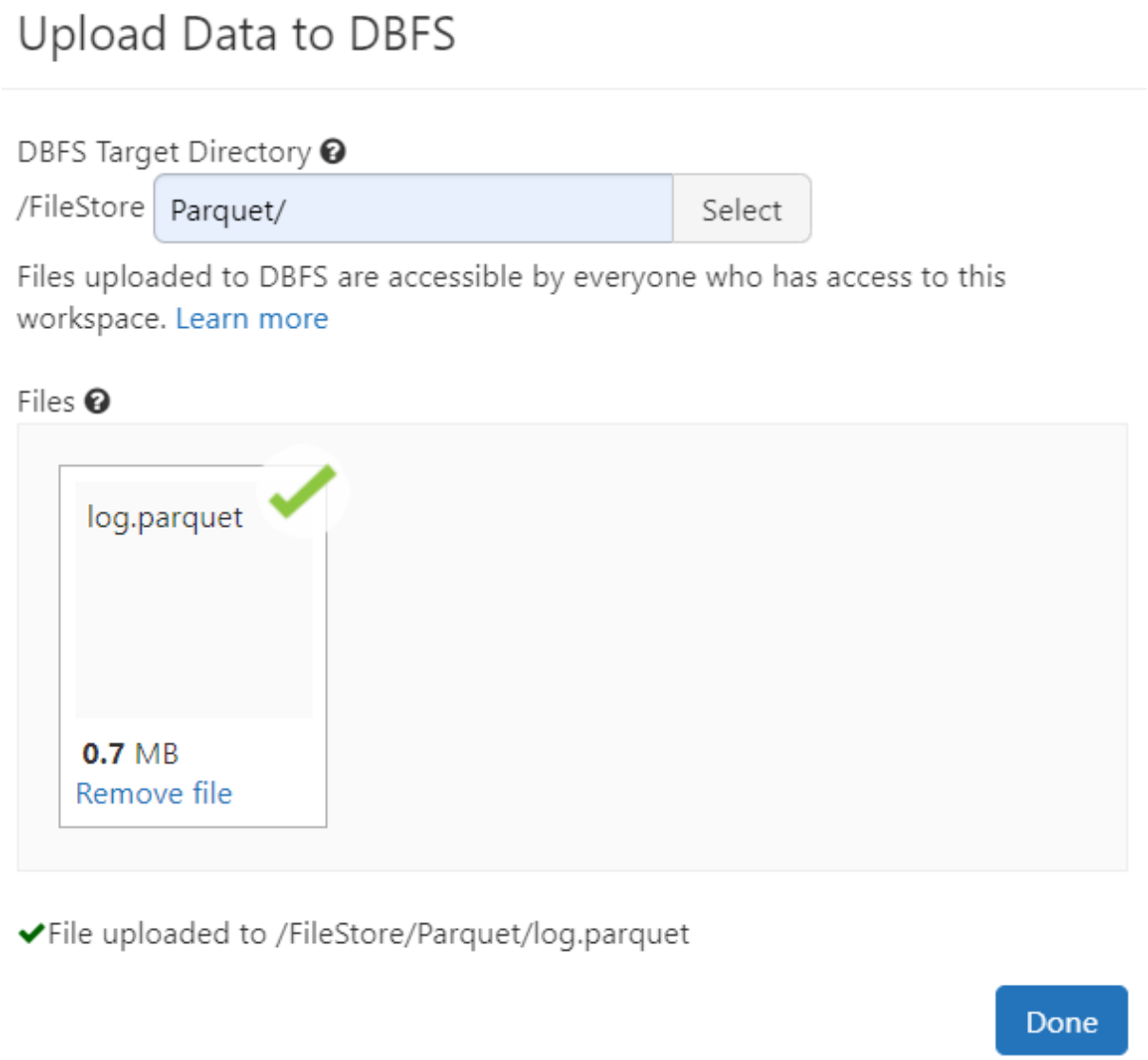
5. Then you need to go to the catalog and click on Browse DBFS.



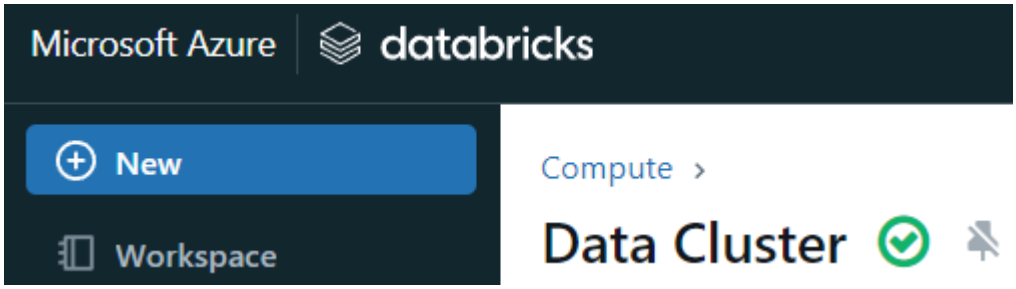
6. Now you need to click on Upload, so that we can upload our Parquet file.



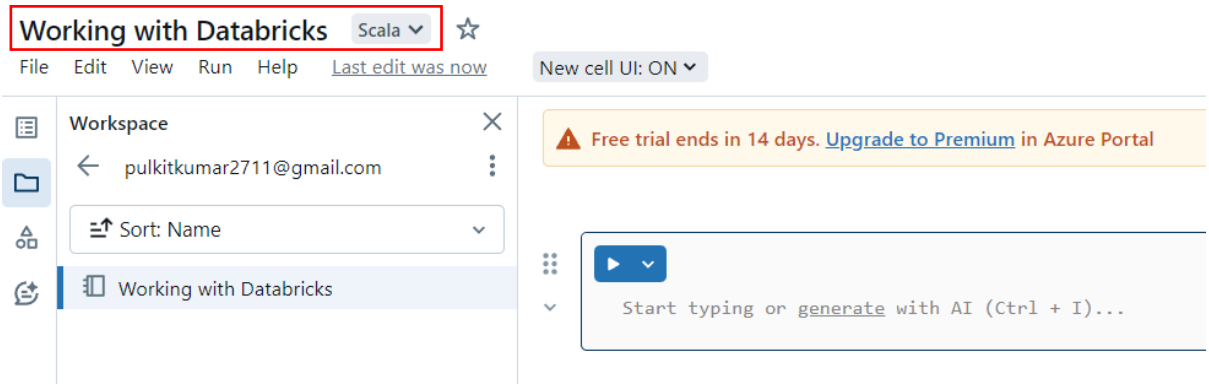
7. Then you can give the folder name as parquet and choose the file from your system.



8. Now click on new and then choose notebook from the menu. It will create your first notebook where you will be writing the code.



9. Now the first thing you have to do is change the name of your notebook and then change the language to scala.



10. Then we pasted our code, and on behalf of this code, we can pull the data from our parquet file and display the data in tabular format.

1 minute ago (2s)

```
import org.apache.spark.sql.types._
import org.apache.spark.sql.functions._

val file_location = "/FileStore/Parquet/log.parquet"
val file_type = "parquet"

val dataSchema = StructType(Array(
    StructField("Correlationid", StringType, true),
    StructField("Operationname", StringType, true),
    StructField("Status", StringType, true),
    StructField("Eventcategory", StringType, true),
    StructField("Level", StringType, true),
    StructField("Time", StringType, true),
    StructField("Subscription", StringType, true),
    StructField("Eventinitiatedby", StringType, true),
    StructField("Resourcetype", StringType, true),
    StructField("Resourcegroup", StringType, true),
    StructField("Resource", StringType, true)))


val df = spark.read.format(file_type).
options(Map("header"->"true")).
schema(dataSchema).
load(file_location)

display(df)
```

11. Once you click on run then you can see that data in place.

```
display(df)
```

(1) Spark Jobs

df: org.apache.spark.sql.DataFrame = [Correlationid: string, Operationname: string ... 9 more fields]

Table

New result table: ON

	Correlationid	Operationname	Status	Eventcategory	Level	Time	Subs
1	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	Update SQL database	Succeeded	Administrative	Informational	2023-04-25T03:36:59.50...	6912d7a
2	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	Create Deployment	Started	Administrative	Informational	2023-04-25T03:23:57.60...	6912d7a
3	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	Create Deployment	Accepted	Administrative	Informational	2023-04-25T03:24:02.27...	6912d7a
4	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	Registers the Microsoft SQL Database Resource Provider	Started	Administrative	Informational	2023-04-25T03:24:03.46...	6912d7a
5	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	Registers the Microsoft SQL Database Resource Provider	Succeeded	Administrative	Informational	2023-04-25T03:24:07.17...	6912d7a
6	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	Update SQL server	Started	Administrative	Informational	2023-04-25T03:24:13.50...	6912d7a
7	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	'audit' Policy action.	Succeeded	Policy	Warning	2023-04-25T03:24:13.56...	6912d7a
8	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	'auditIfNotExists' Policy action.	Started	Policy	Informational	2023-04-25T03:24:17.20...	6912d7a
9	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	Update SQL server	Accepted	Administrative	Informational	2023-04-25T03:24:17.47...	6912d7a
10	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	Update SQL server firewall rules	Started	Administrative	Informational	2023-04-25T03:25:37.98...	6912d7a
11	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	Update SQL server firewall rules	Started	Administrative	Informational	2023-04-25T03:25:37.98...	6912d7a
12	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	Update Server Connection Policy Create	Started	Administrative	Informational	2023-04-25T03:25:37.98...	6912d7a
13	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	Update SQL database	Started	Administrative	Informational	2023-04-25T03:25:37.99...	6912d7a
14	99fe9c3a-e36e-44e0-acd4-58272ab10c7e	Update Server Connection Policy Create	Succeeded	Administrative	Informational	2023-04-25T03:25:38.10...	6912d7a

5,345+ rows | Truncated data | 1.66 seconds runtime

Refreshed 4 minutes ago