Coding Challenge-4.1
Azure Databricks

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Batch-Data Engineering(Batch-1)

Exploratory data analysis (EDA) in Databricks &Visualizing data in Databricks

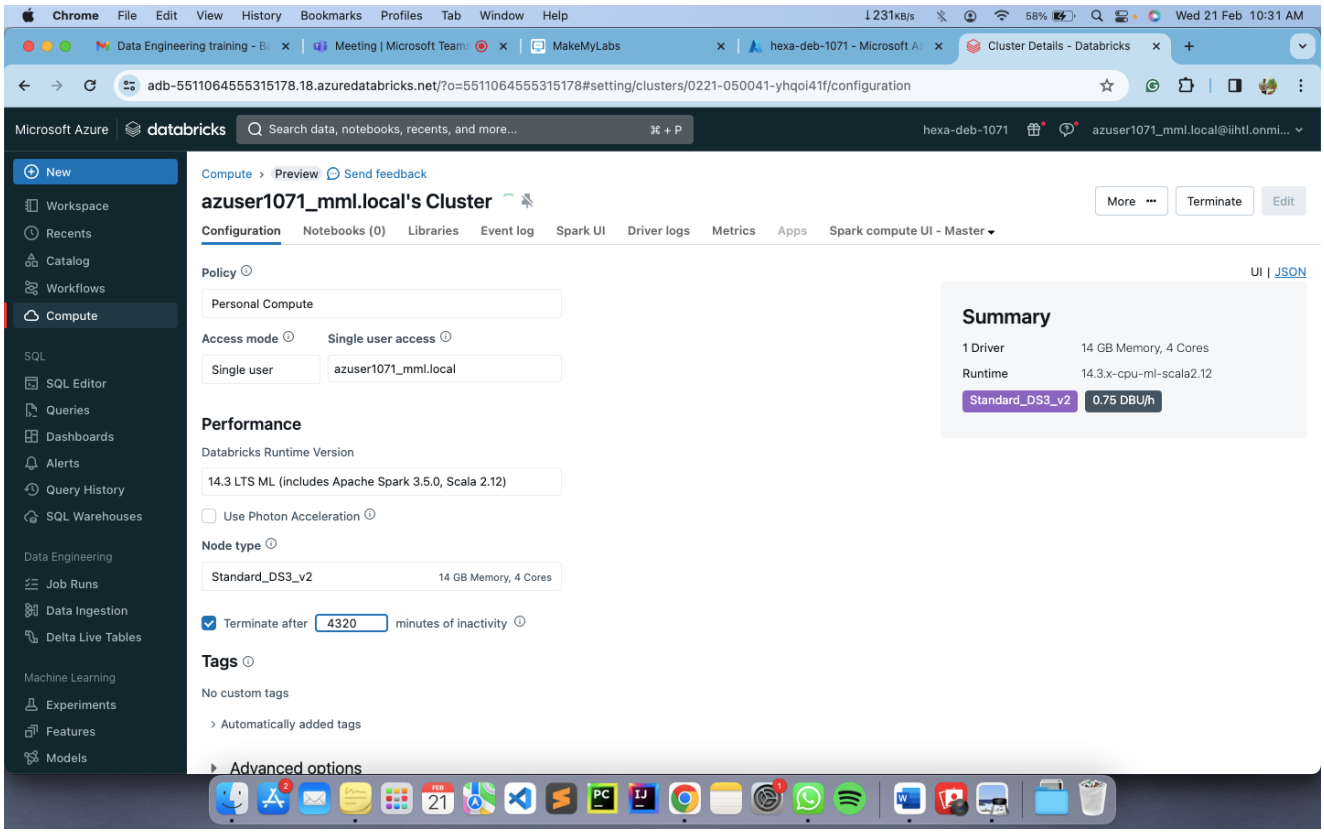
Exploratory data analysis(EDA)-EDA is the process of analyzing datasets to summarize their main characteristics, often employing statistical graphics and other data visualization methods. In Databricks, you can perform EDA using Spark SQL, DataFrame API, and various libraries like Pandas, Matplotlib, Seaborn, etc.

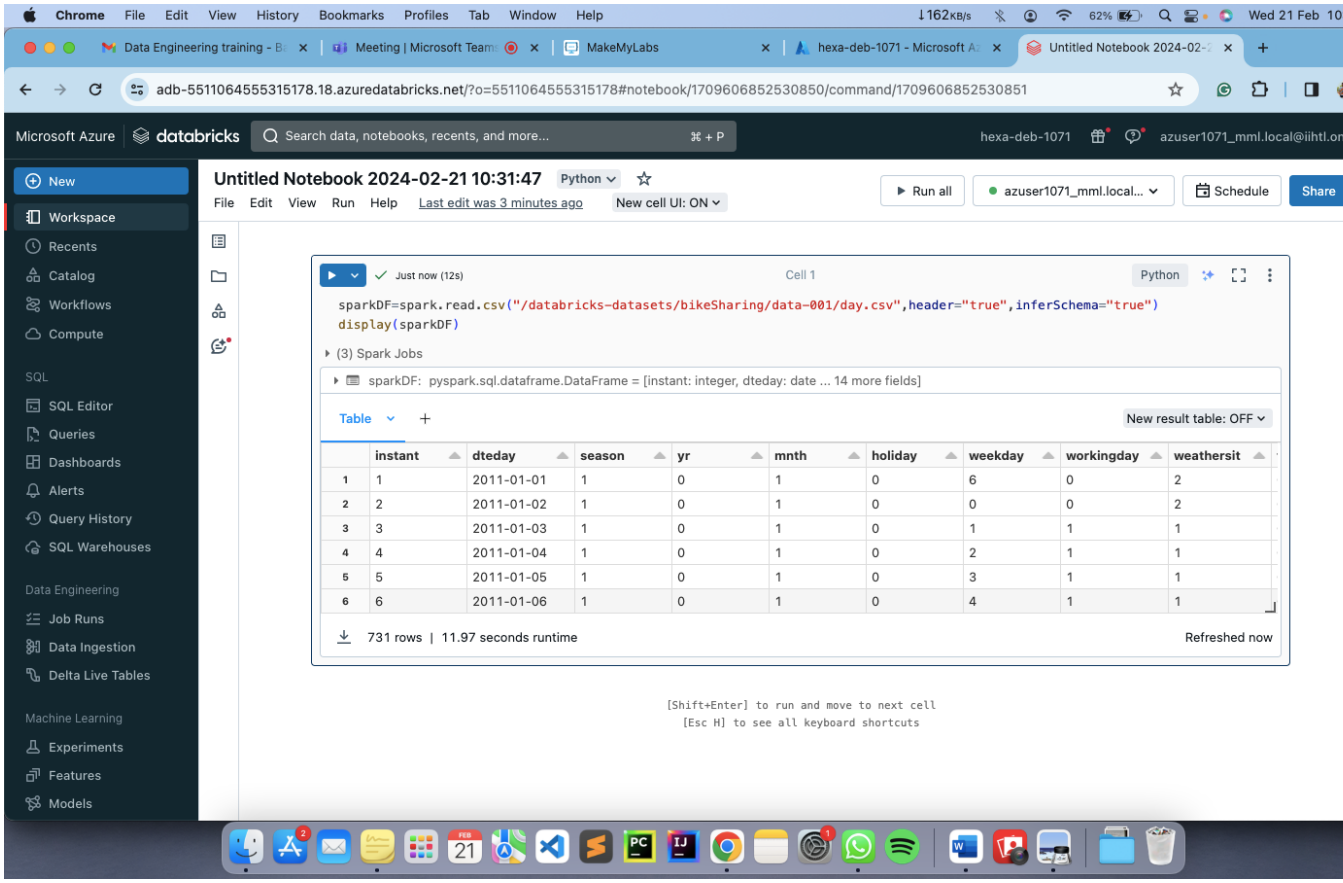
Visualizing data-Visualizing Data: Databricks provides built-in support for visualizing data using various libraries such as Matplotlib, Seaborn, Plotly, and the built-in visualizations of Databricks notebooks. You can create visualizations directly within your Databricks notebook using these libraries or by utilizing the built-in display capabilities of Databricks.

Steps to create visualization-
In order to create visualizations, we need to have data.

- After creating a table
- Click on + symbol
- Click on visualization.
- Select the type of visualization, then select Scatter.

Created a cluster to run the visualization

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Data Engineering
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Data Ingestion
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Machine Learning
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Models
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Python
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Last edit was 3 minutes ago
New cell UI: ON
Run all
azuser1071_mml.local...
Schedule
Share
Just now (12s)
Cell 1
Python
sparkDF=spark.read.csv("/databricks-datasets/bikeSharing/data-001/day.csv",header="true",inferSchema="true")
display(sparkDF)
(3) Spark Jobs
sparkDF: pyspark.sql.dataframe.DataFrame = [instant: integer, dteday: date ... 14 more fields]
Table
New result table: OFF
instant dteday season yr mnth holiday weekday workingday weathersit
1 1 2011-01-01 1 0 1 0 6 0 2
2 2 2011-01-02 1 0 1 0 0 0 2
3 3 2011-01-03 1 0 1 0 1 1 1
4 4 2011-01-04 1 0 1 0 2 1 1
5 5 2011-01-05 1 0 1 0 3 1 1
6 6 2011-01-06 1 0 1 0 4 1 1
731 rows | 11.97 seconds runtime
Refreshed now
[Shift+Enter] to run and move to next cell
[Esc H] to see all keyboard shortcuts

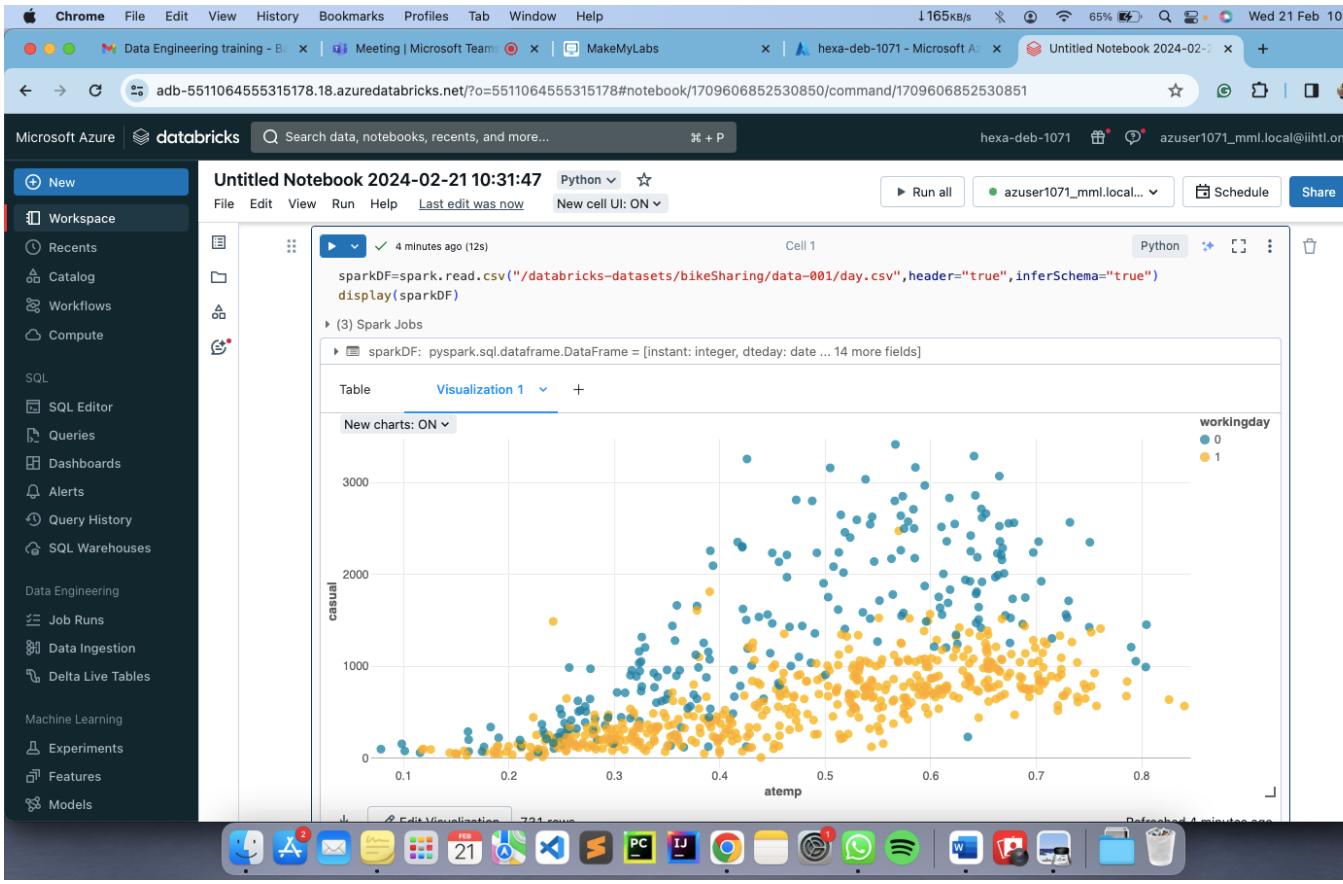
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Table
Visualization 1
New charts: ON
workingday
0
1
casual
3000
2000
1000
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
atemp