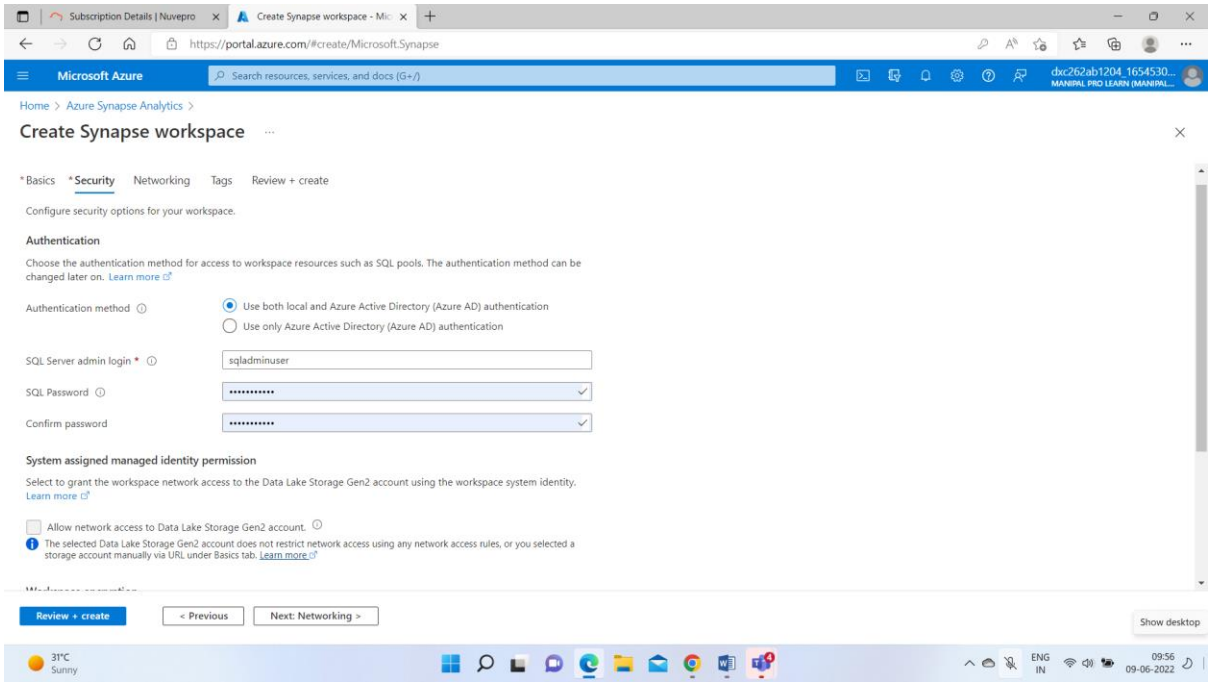
ASSIGNMENT 9

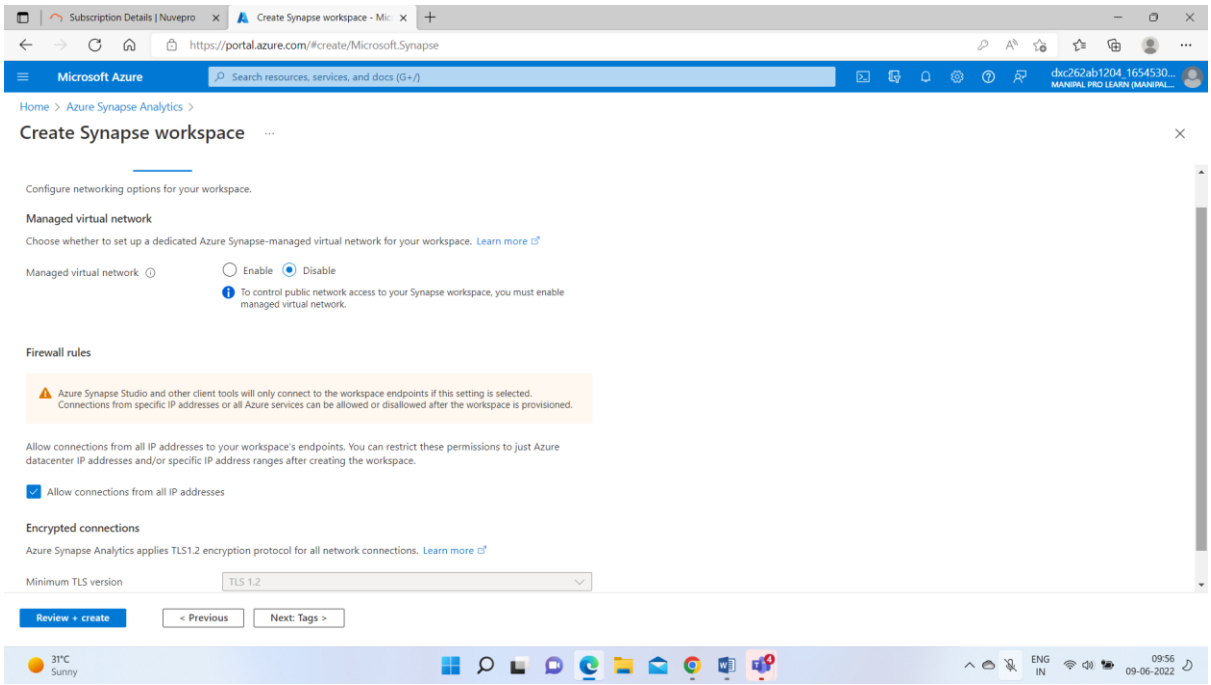
NAME: Aishee Bhattacharya

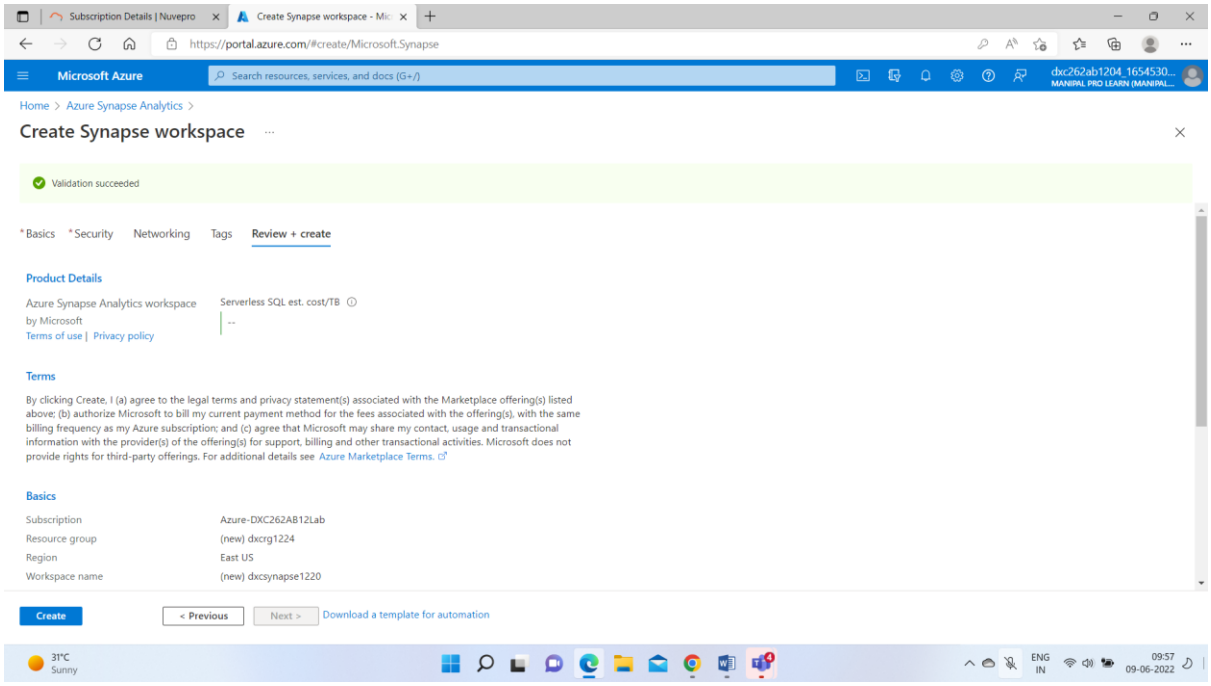
BATCH: DXC-262-Analytics-B12-Azure

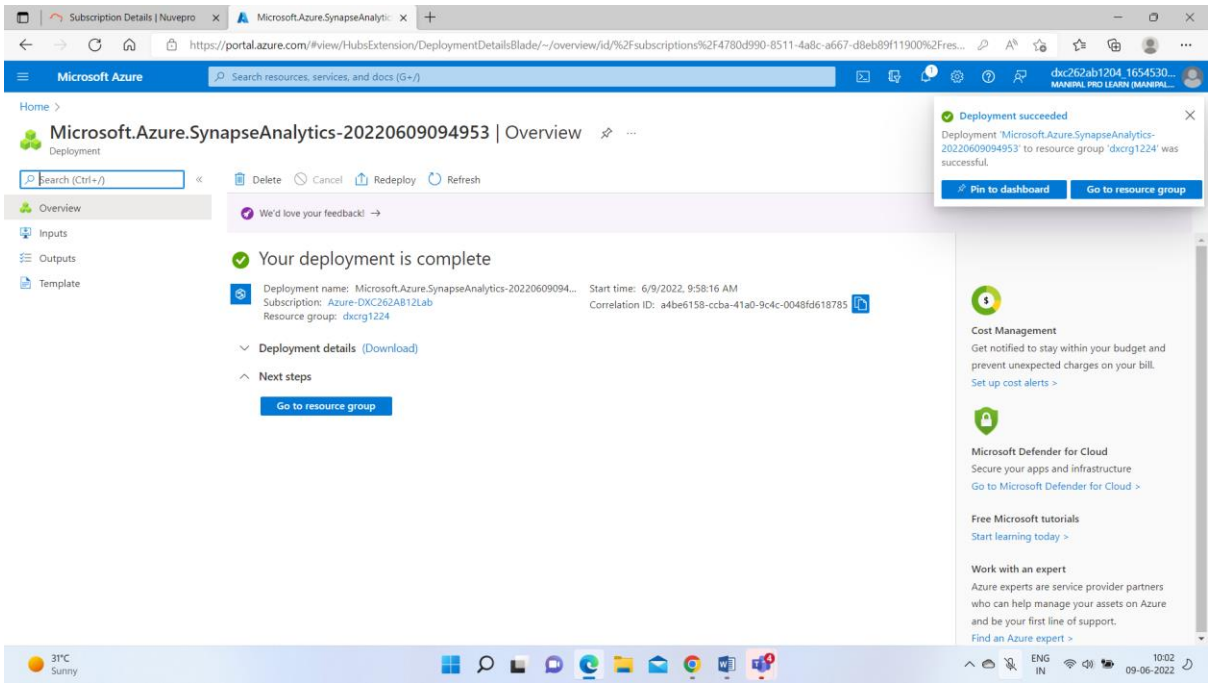
DATE: 09/06/2022

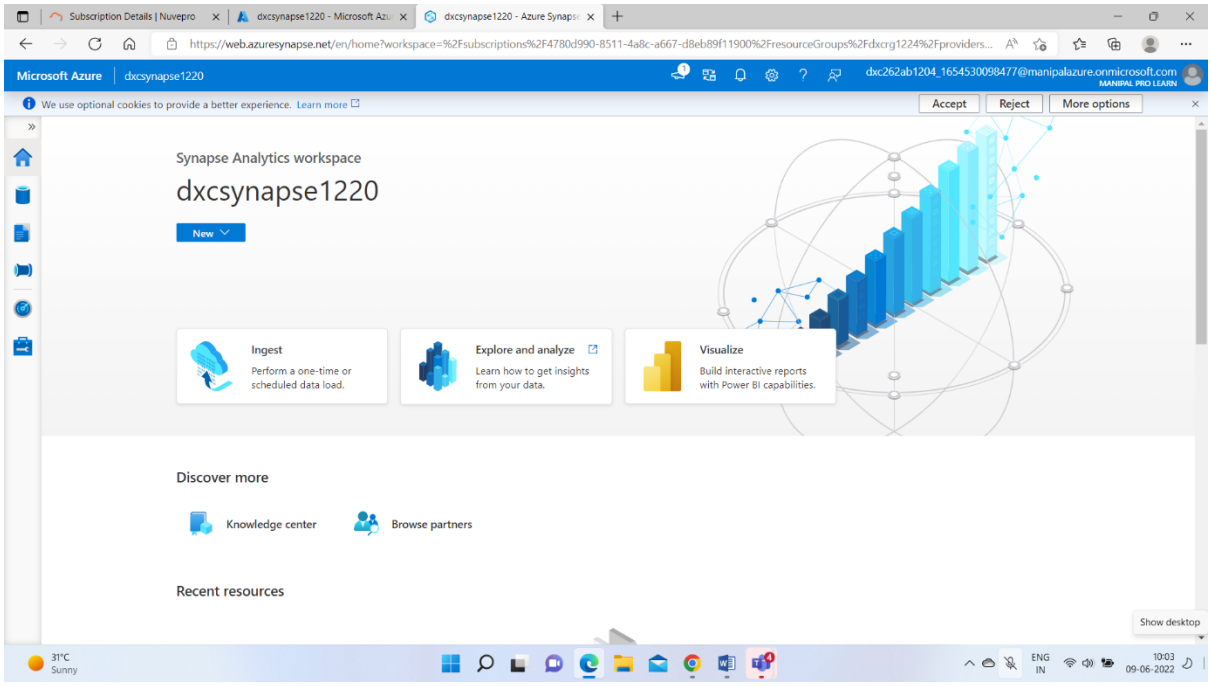
1. Explain the steps with screenshots how to AzureSynapse analytics?



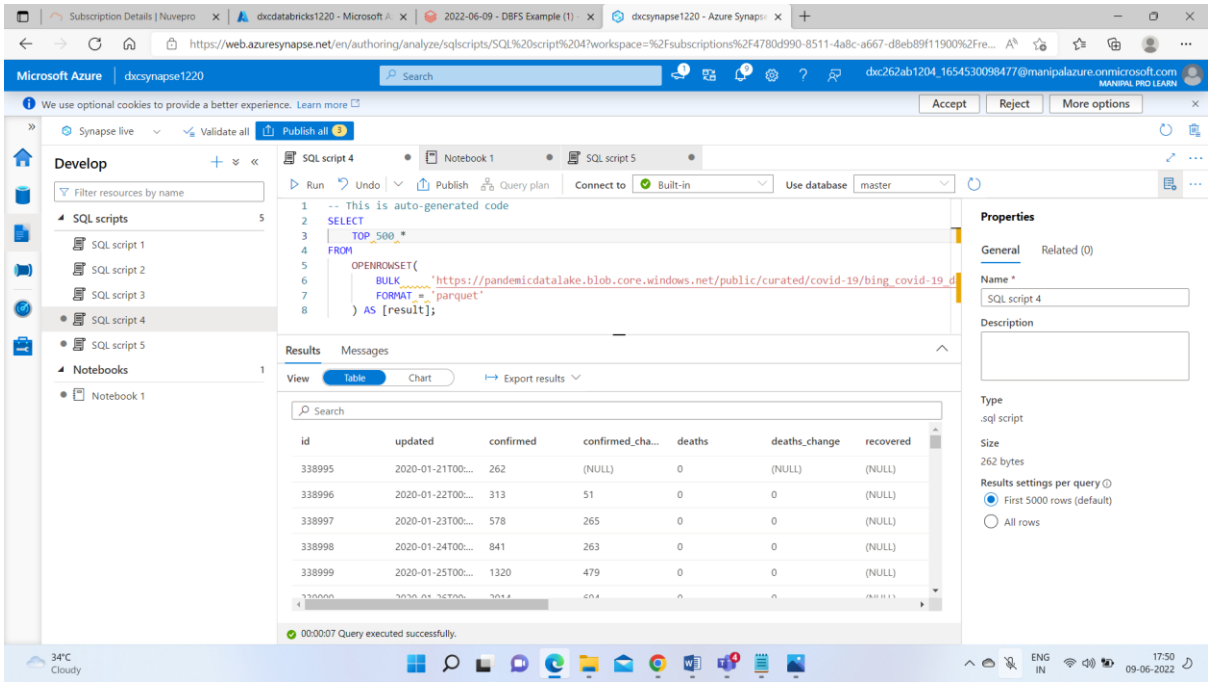


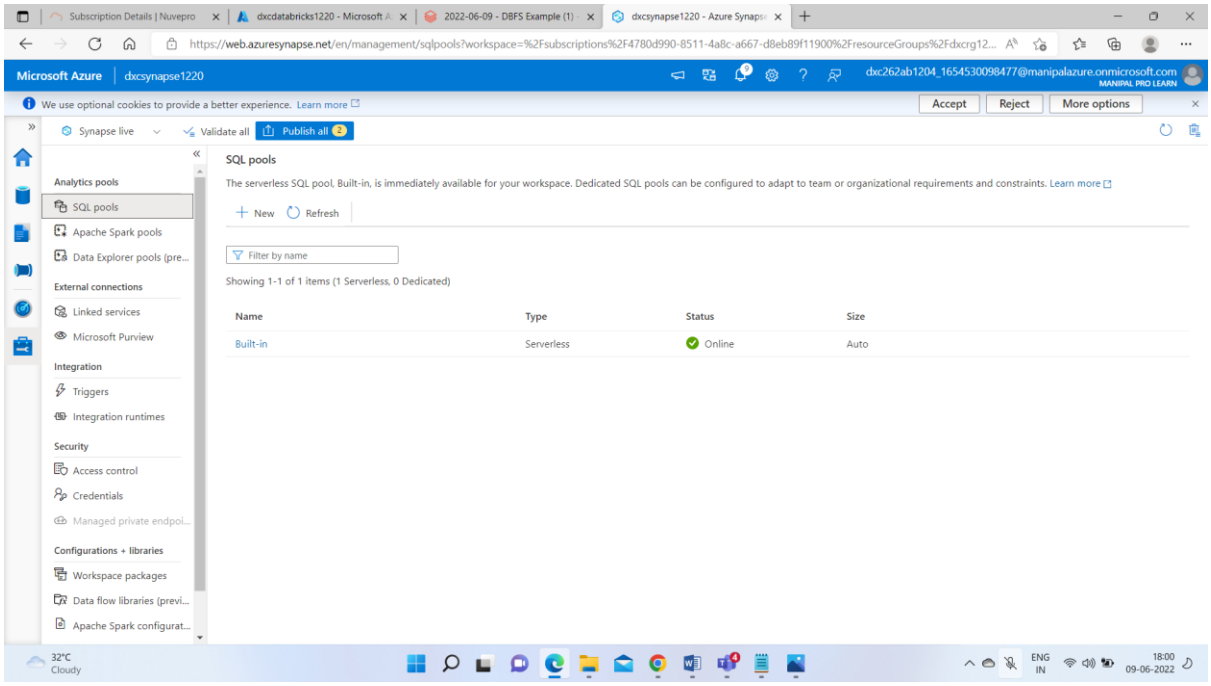

Subscription Details | Nuvepro
Create Synapse workspace - Mic
https://portal.azure.com/#create/Microsoft.Synapse
Microsoft Azure
Search resources, services, and docs (G+/)
dxc262ab1204_1654530...
MANIPAL PRO LEARN (MANIPAL...
Home > Azure Synapse Analytics >
Create Synapse workspace
Validation succeeded
*Basics *Security Networking Tags Review + create
Product Details
Azure Synapse Analytics workspace
by Microsoft
Terms of use | Privacy policy
Serverless SQL est. cost/TB
--
Terms
By clicking Create, I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. For additional details see Azure Marketplace Terms.
Basics
Subscription Azure-DXC262AB12Lab
Resource group (new) dxcrg1224
Region East US
Workspace name (new) dxcsynapse1220
Create
< Previous
Next >
Download a template for automation
31°C
Sunny
ENG
IN
09:57
09-06-2022


Subscription Details | Nuvepro
Microsoft.Azure.SynapseAnalytic
https://portal.azure.com/#view/HubsExtension/DeploymentDetailsBlade/~/overview/id/%2Fsubscriptions%2F4780d990-8511-4a8c-a667-d8eb89f11900%2Fres...
Microsoft Azure
Search resources, services, and docs (G+/)
dxc262ab1204_1654530...
MANIPAL PRO LEARN (MANIPAL...
Home >
Microsoft.Azure.SynapseAnalytics-20220609094953 | Overview
Deployment
Search (Ctrl+/)
Overview
Inputs
Outputs
Template
Delete
Cancel
Redeploy
Refresh
We'd love your feedback! →
Your deployment is complete
Deployment name: Microsoft.Azure.SynapseAnalytics-20220609094...
Subscription: Azure-DXC262AB12Lab
Resource group: dxcrg1224
Start time: 6/9/2022, 9:58:16 AM
Correlation ID: a4be6158-ccba-41a0-9c4c-0048fd618785
Deployment details (Download)
Next steps
Go to resource group
Deployment succeeded
Deployment 'Microsoft.Azure.SynapseAnalytics-20220609094953' to resource group 'dxcrg1224' was successful.
Pin to dashboard
Go to resource group
Cost Management
Get notified to stay within your budget and prevent unexpected charges on your bill.
Set up cost alerts >
Microsoft Defender for Cloud
Secure your apps and infrastructure
Go to Microsoft Defender for Cloud >
Free Microsoft tutorials
Start learning today >
Work with an expert
Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support.
Find an Azure expert >
31°C
Sunny
ENG
IN
10:02
09-06-2022

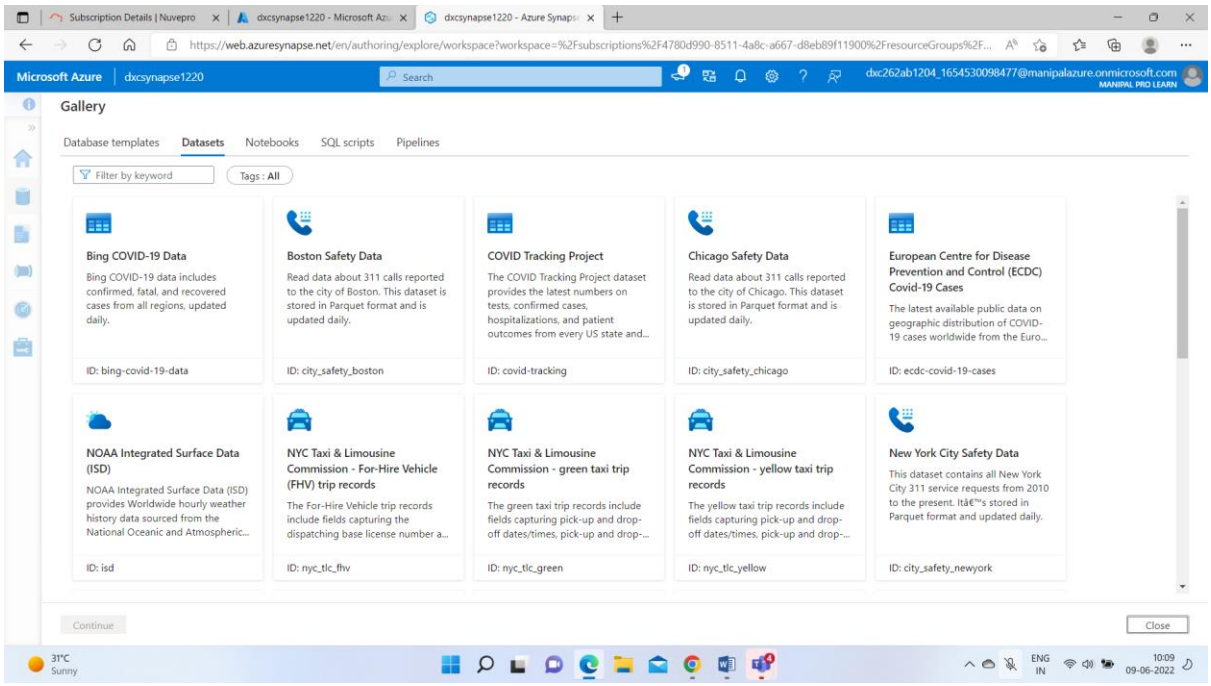


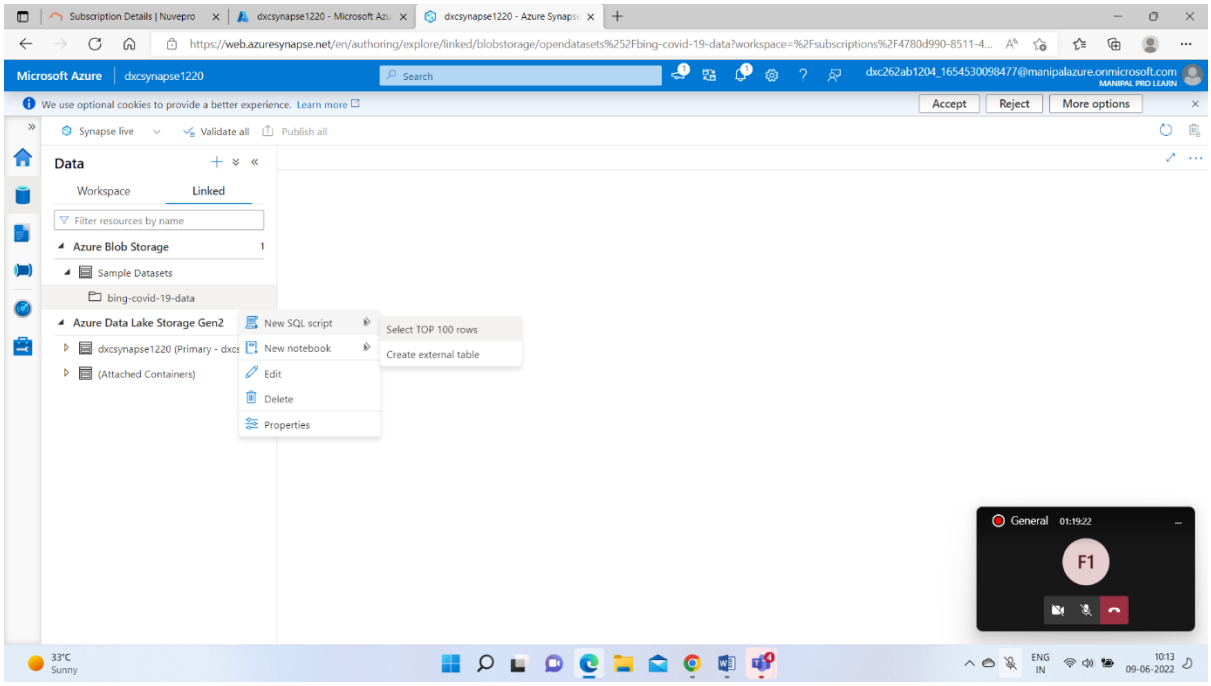
2. Explain the steps with screenshots how to SQL Pool in AzureSynapse analytics?

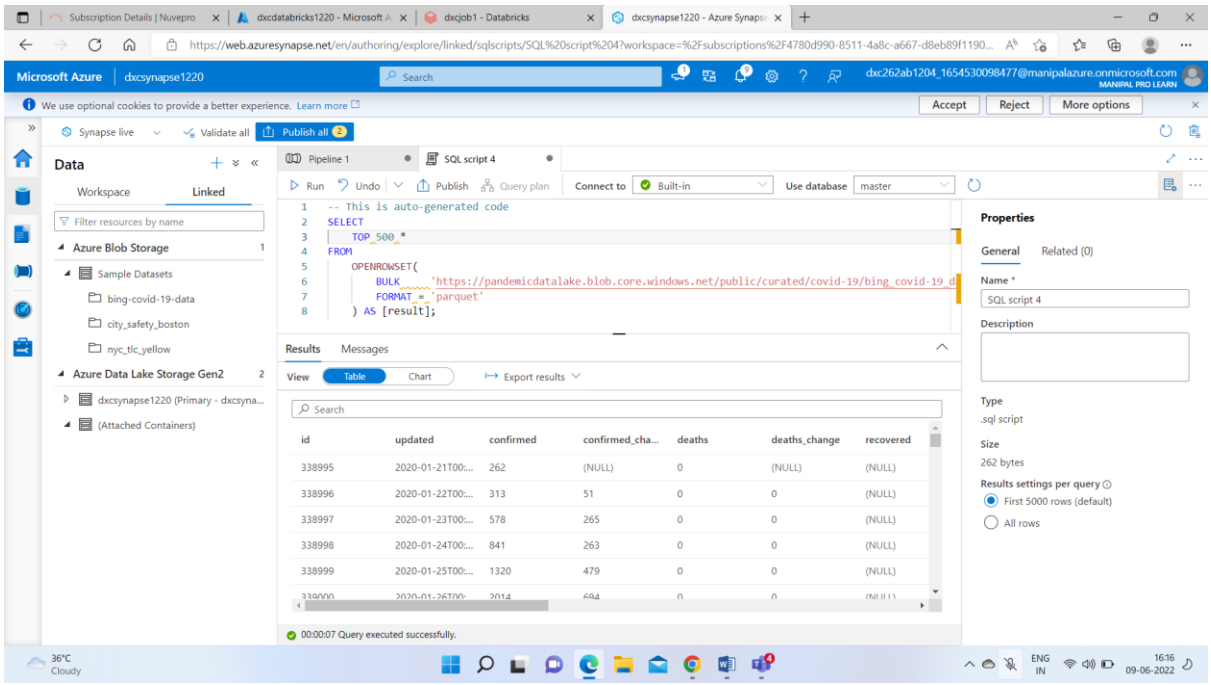




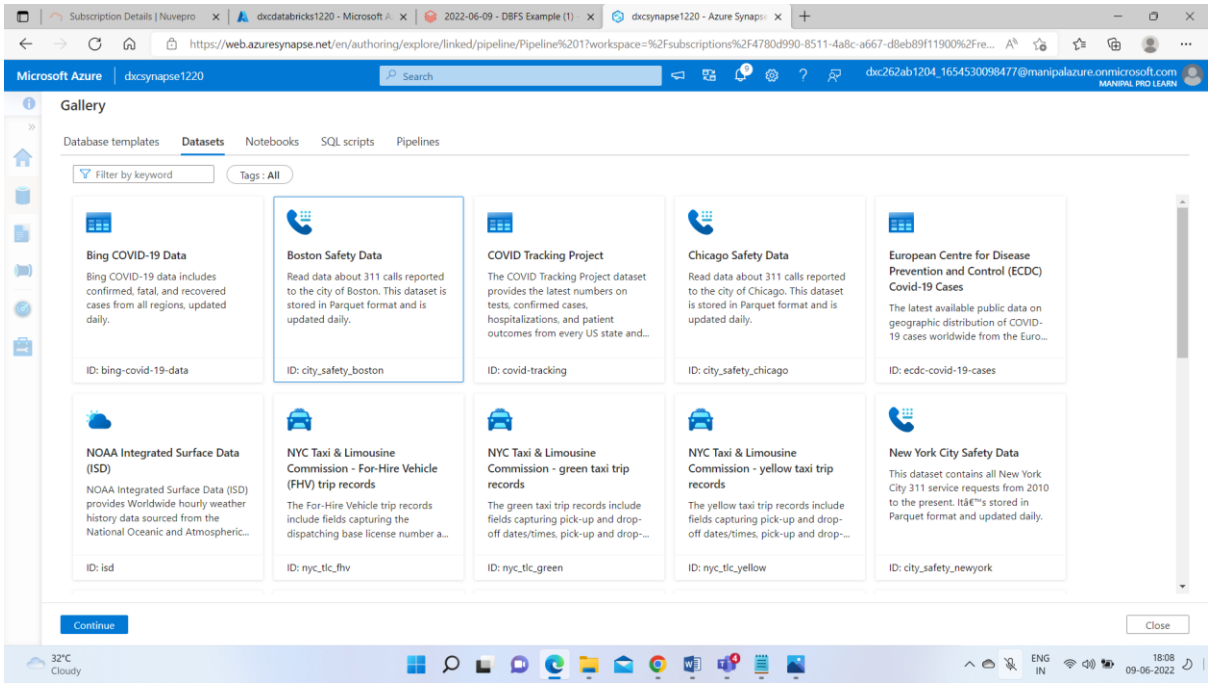
3. Explain the steps with screenshots how to import COVID19 dataset in AzureSynapse analytics. and run sample 500 rows & dispaly the output?

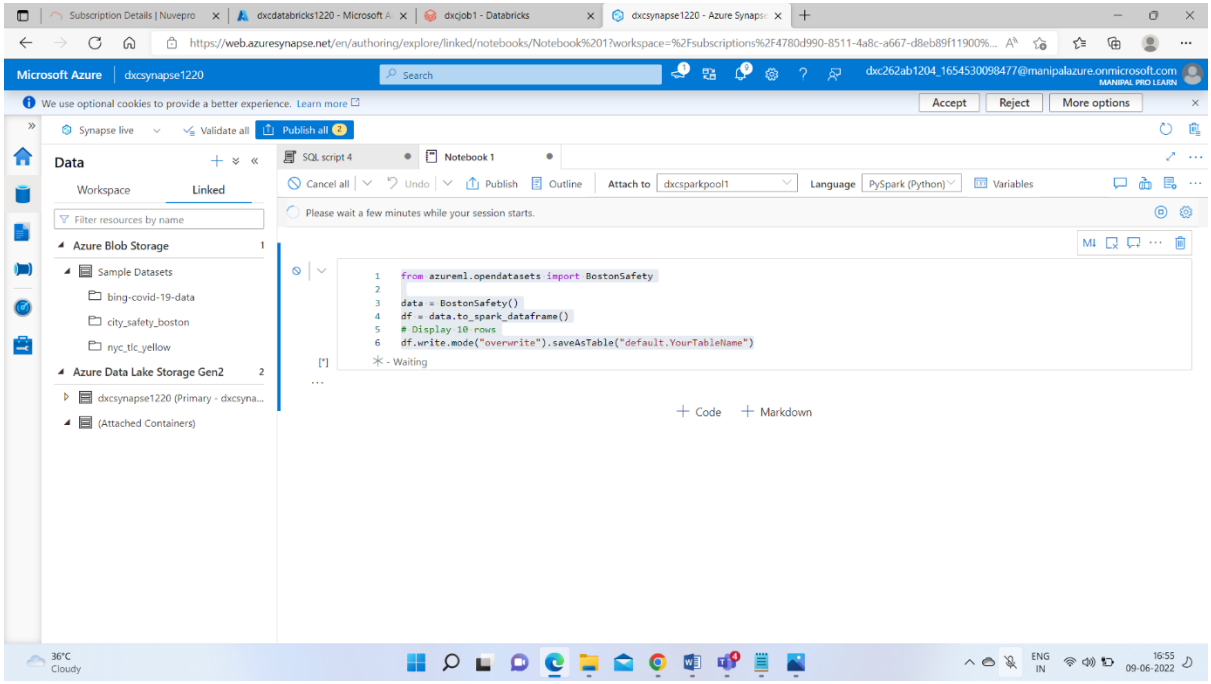



Microsoft Azure
dxcsynapse1220
Search
We use optional cookies to provide a better experience. Learn more
Accept
Reject
More options
Synapse live
Validate all
Publish all
Data
Workspace
Linked
Filter resources by name
Azure Blob Storage
Sample Datasets
bing-covid-19-data
Azure Data Lake Storage Gen2
(Attached Containers)
New SQL script
New notebook
Edit
Delete
Properties
Select TOP 100 rows
Create external table
General 01:19:22
F1

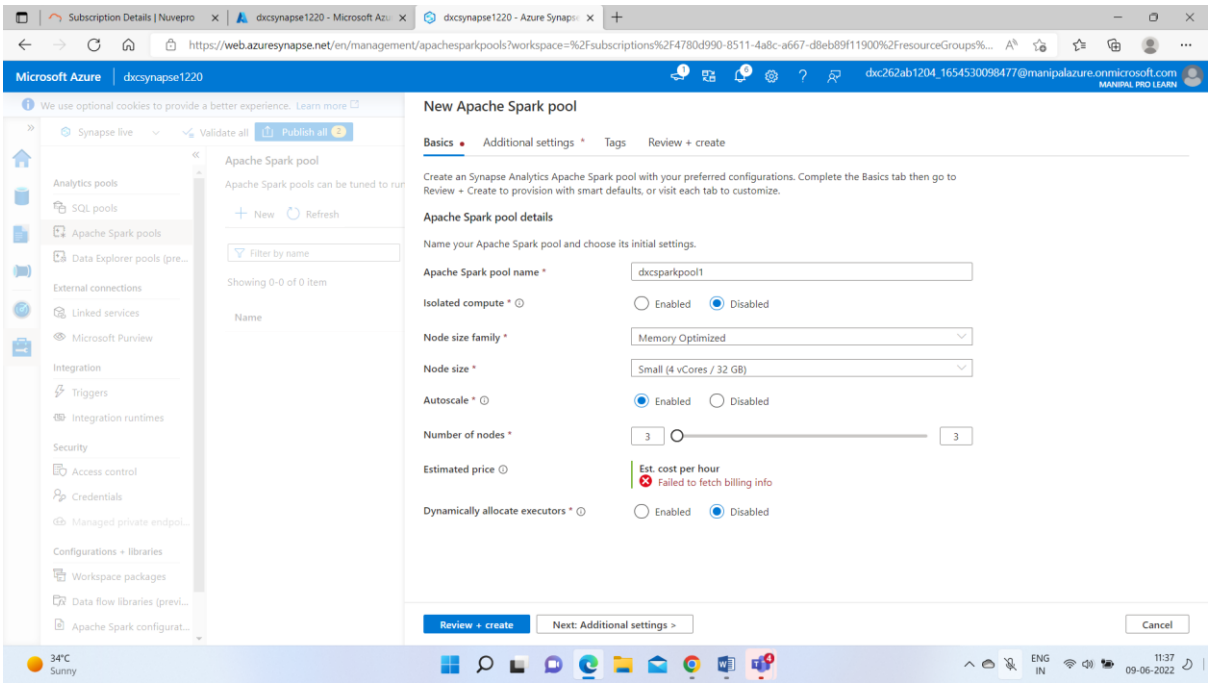

Microsoft Azure
dxcsynapse1220
Search
We use optional cookies to provide a better experience. Learn more
Accept
Reject
More options
Synapse live
Validate all
Publish all 2
Data
Workspace
Linked
Filter resources by name
Azure Blob Storage
Sample Datasets
bing-covid-19-data
city_safety_boston
nyc_tlc_yellow
Azure Data Lake Storage Gen2
(Attached Containers)
Pipeline 1
SQL script 4
Run
Undo
Publish
Query plan
Connect to
Built-in
Use database
master
-- This is auto-generated code
SELECT
TOP 500 *
FROM
OPENROWSET(
BULK 'https://pandemicdatalake.blob.core.windows.net/public/curated/covid-19/bing_covid-19_d
FORMAT='parquet'
) AS [result];
Results
Messages
View
Table
Chart
Export results
Search
id
updated
confirmed
confirmed_cha...
deaths
deaths_change
recovered
338995
2020-01-21T00:...
262
(NULL)
0
(NULL)
(NULL)
338996
2020-01-22T00:...
313
51
0
0
(NULL)
338997
2020-01-23T00:...
578
265
0
0
(NULL)
338998
2020-01-24T00:...
841
263
0
0
(NULL)
338999
2020-01-25T00:...
1320
479
0
0
(NULL)
00:00:07 Query executed successfully.
Properties
General
Related (0)
Name *
SQL script 4
Description
Type
.sql script
Size
262 bytes
Results settings per query
First 5000 rows (default)
All rows

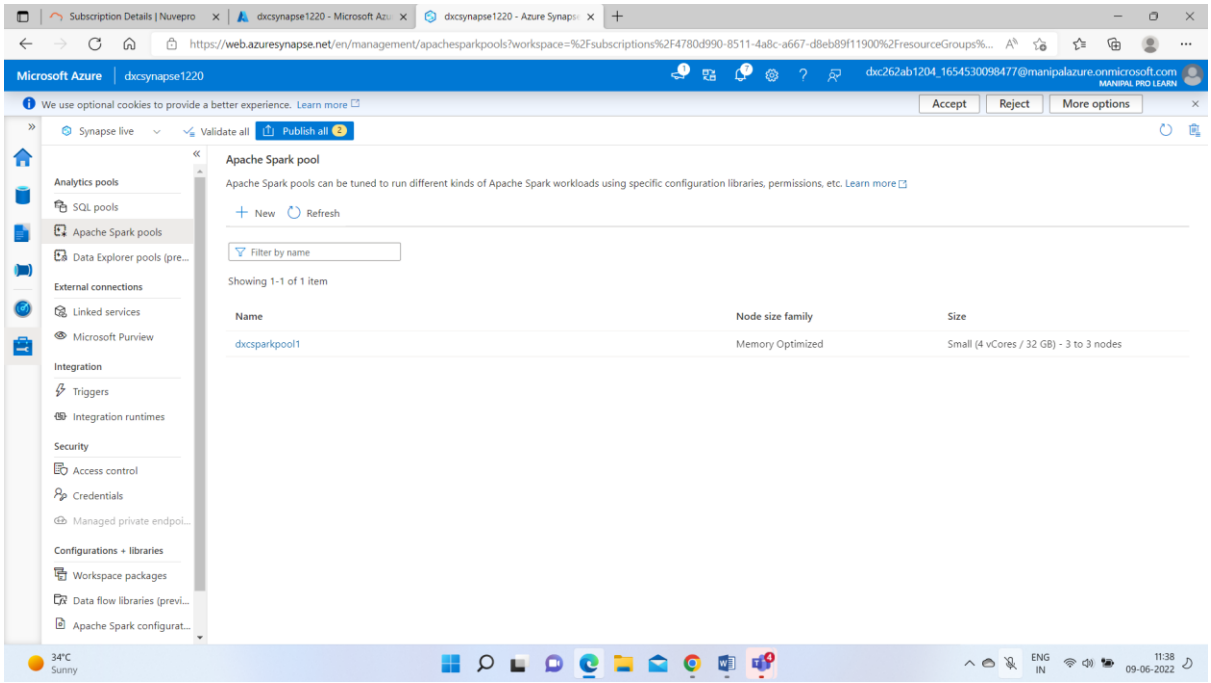
4. Explain the steps with screenshots how to input Boston Safety datasets into AzureSynapse analytics using Notebooks ?

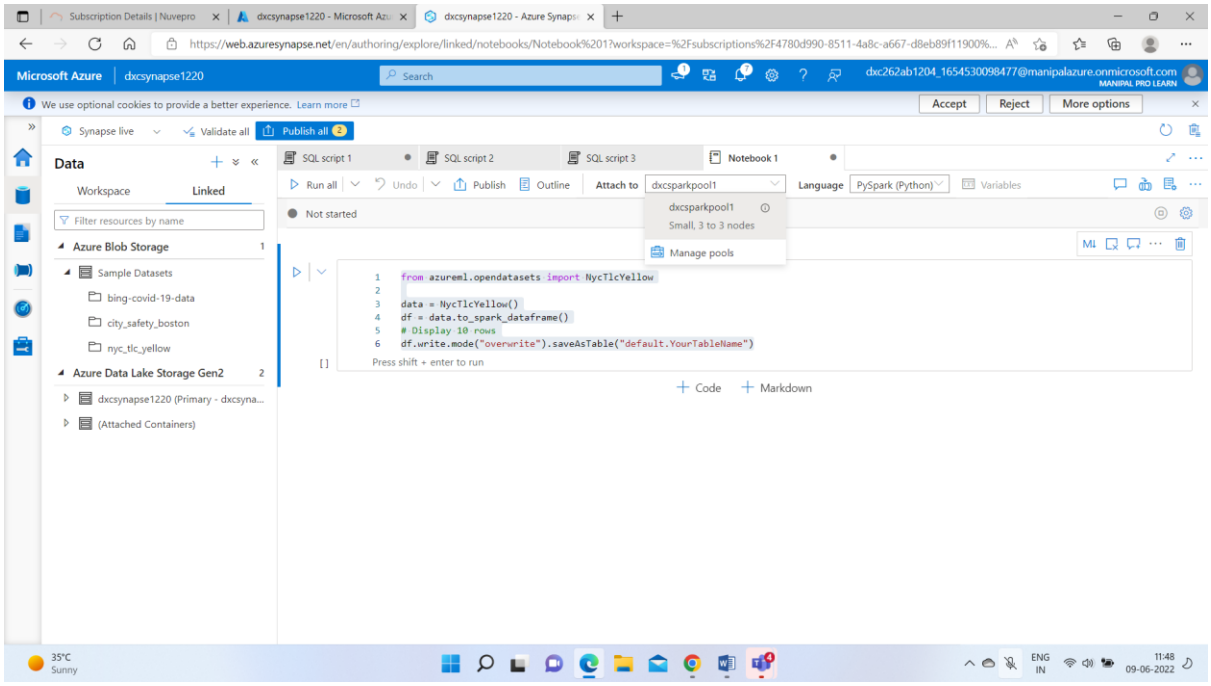




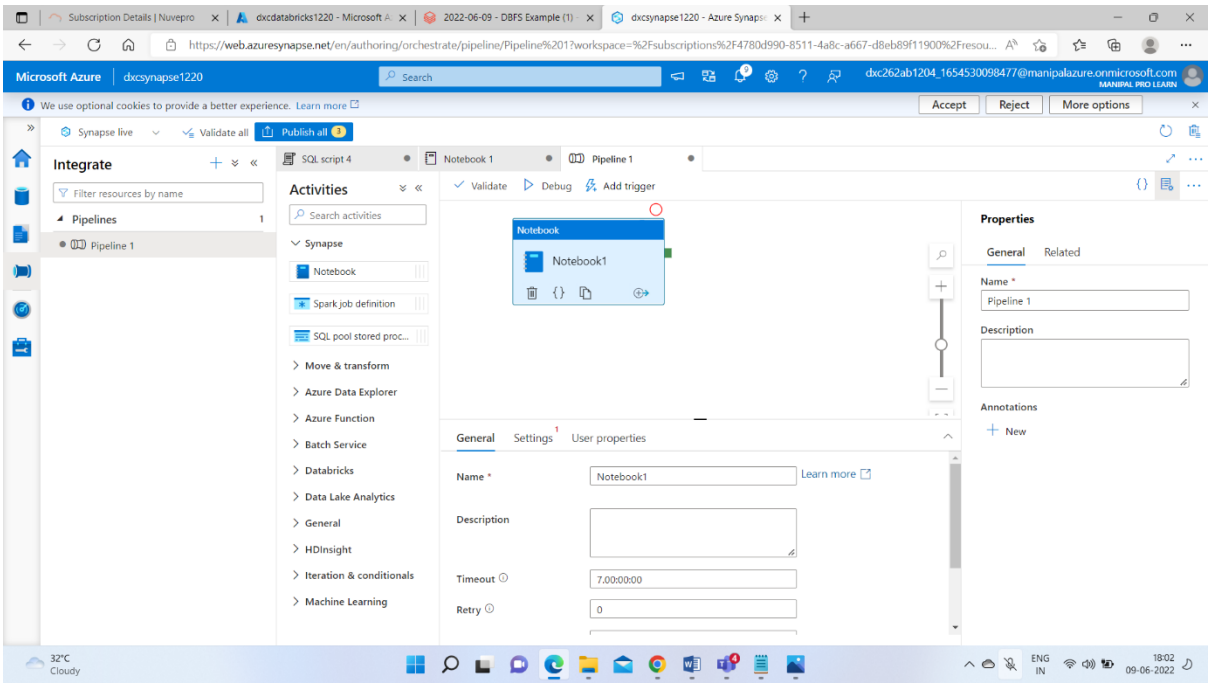
5. Explain the steps with screenshots how to create Spark pool in AzureSynapse analytics?

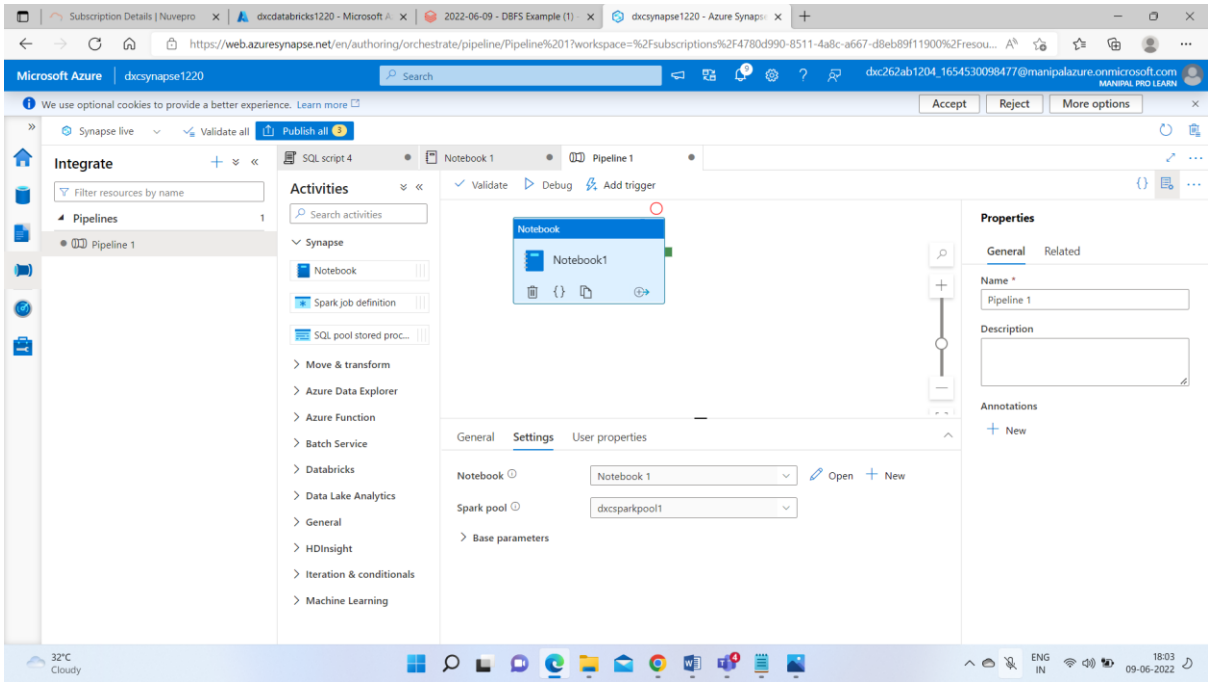




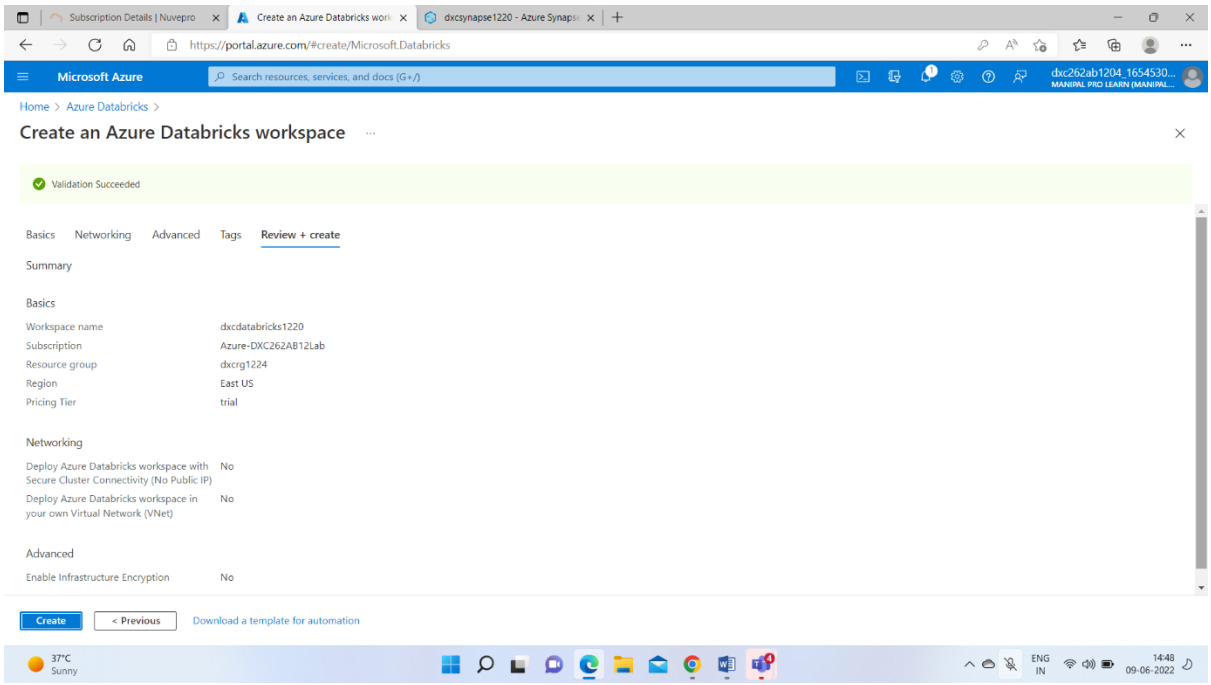


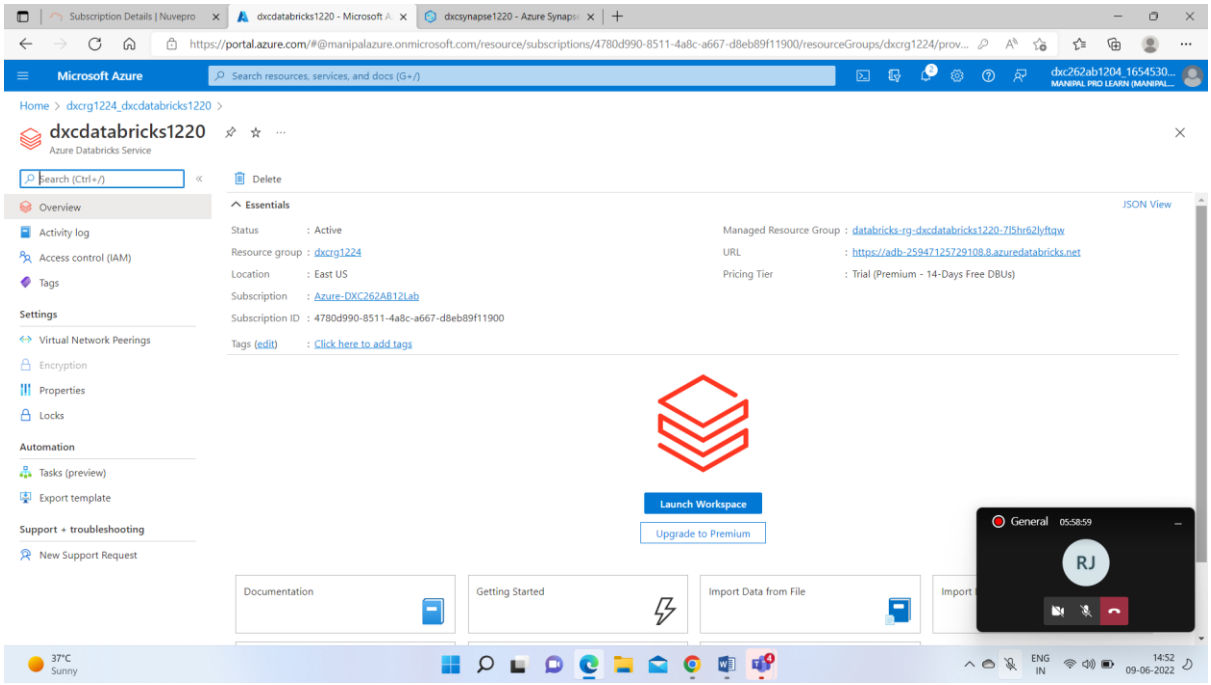
6. Explain the steps with screenshots how to create pipeline in AzureSynapse analytics?



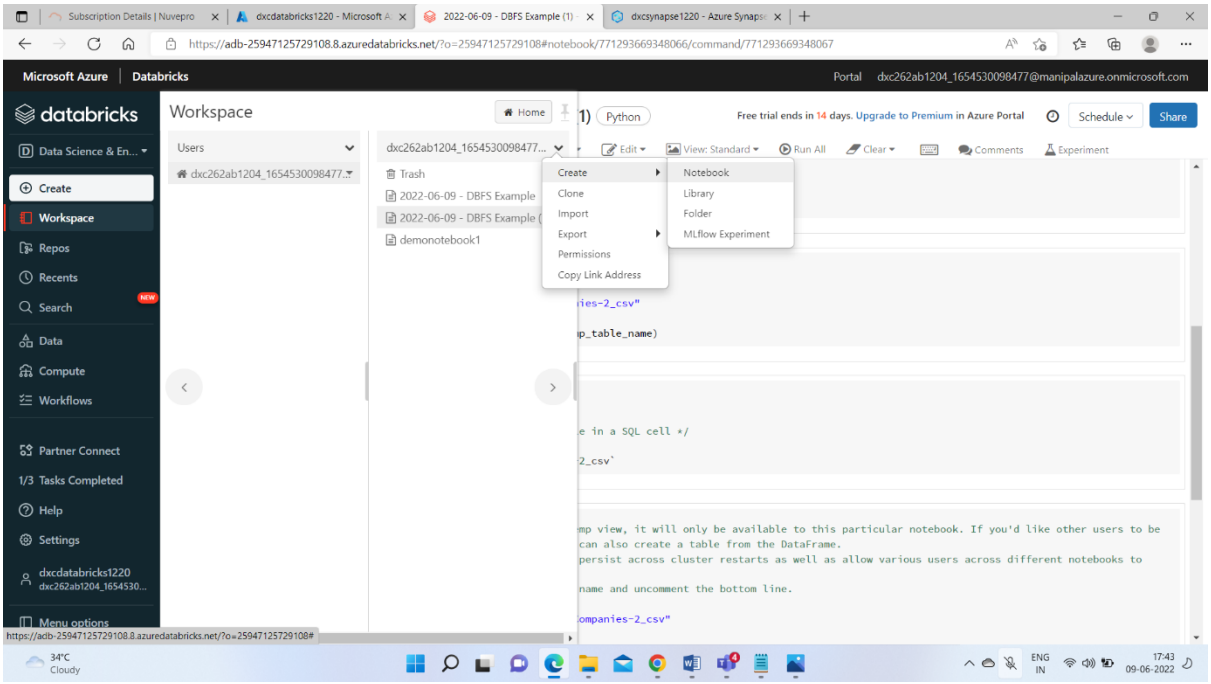


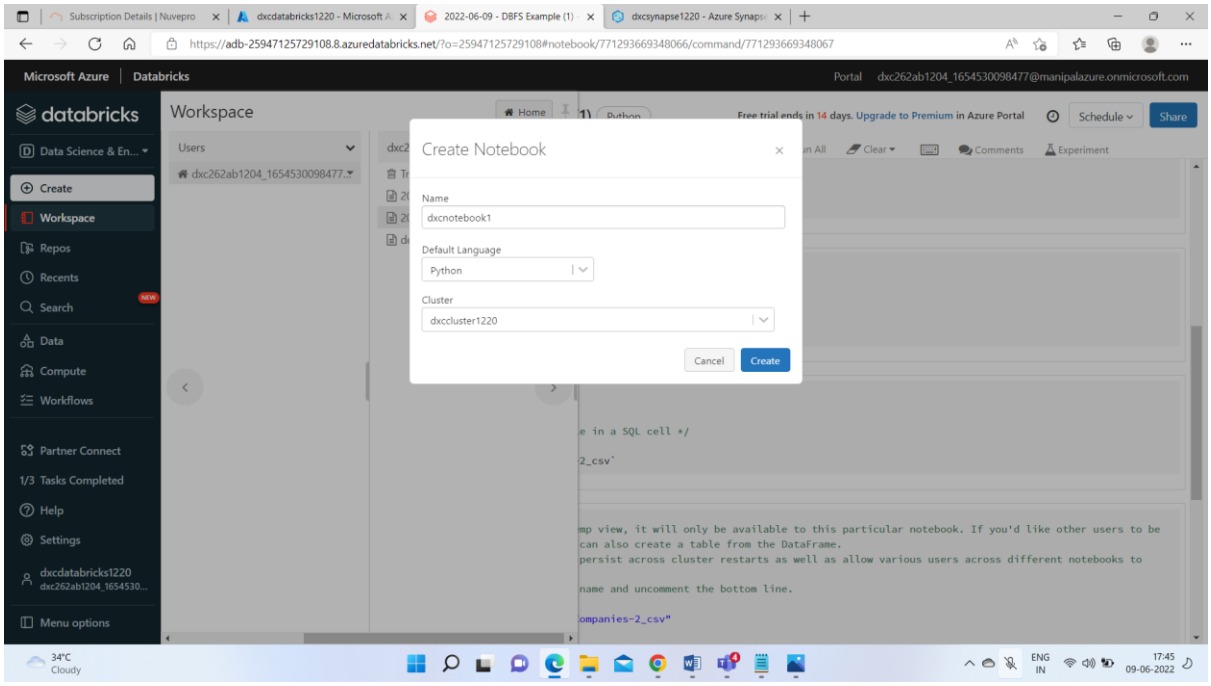
8. Explain the steps with screenshots how to Databricks ?
    - Scalable analytics performed in azure
    - Based on Apache spark
    - Workflows and workspaces for data users
    - Native integration with other azure services



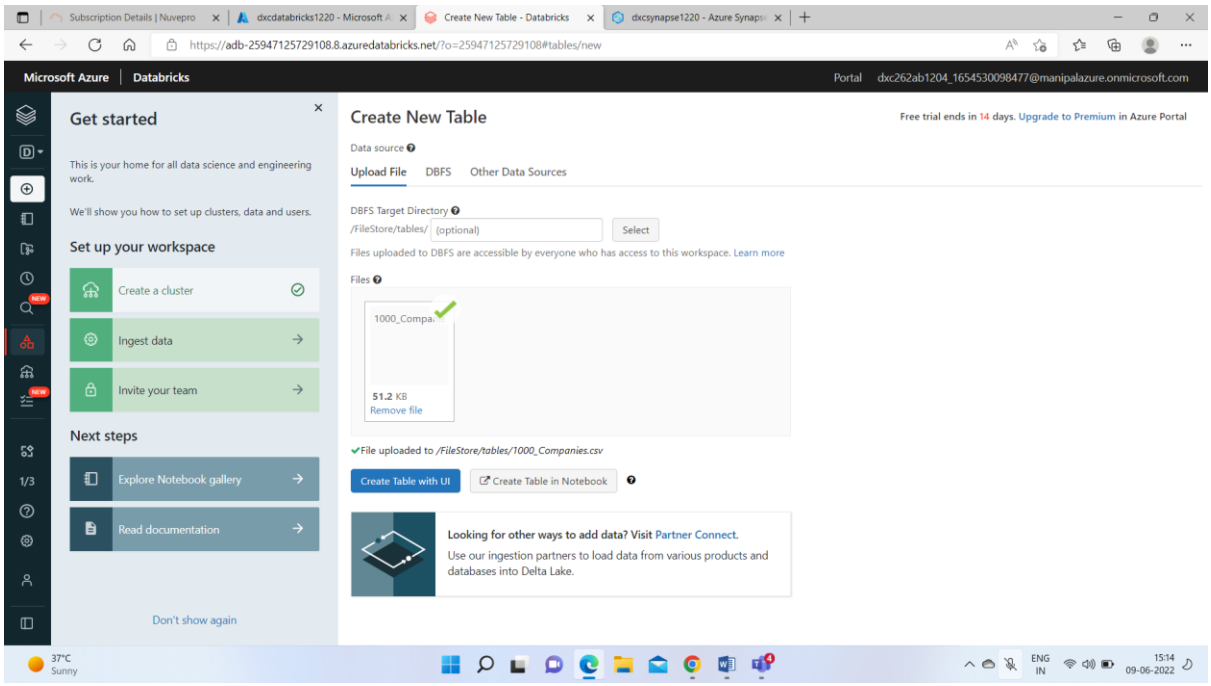


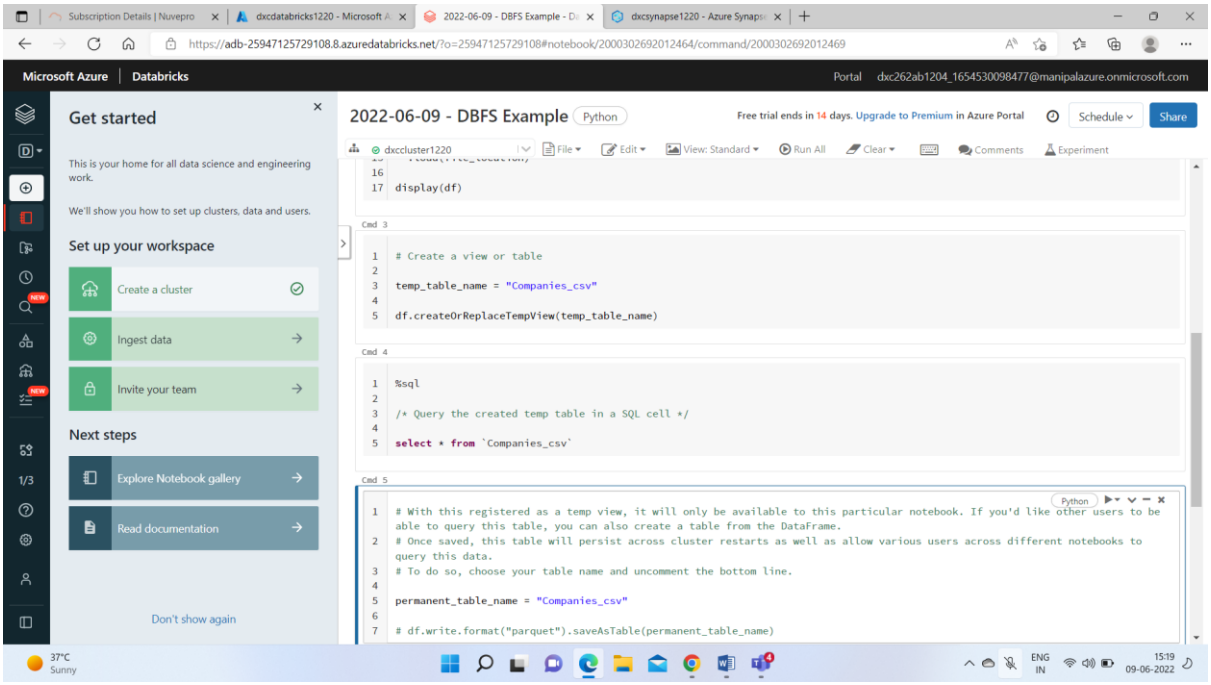
9. Explain the steps with screenshots how to create notebooks in Databricks ?

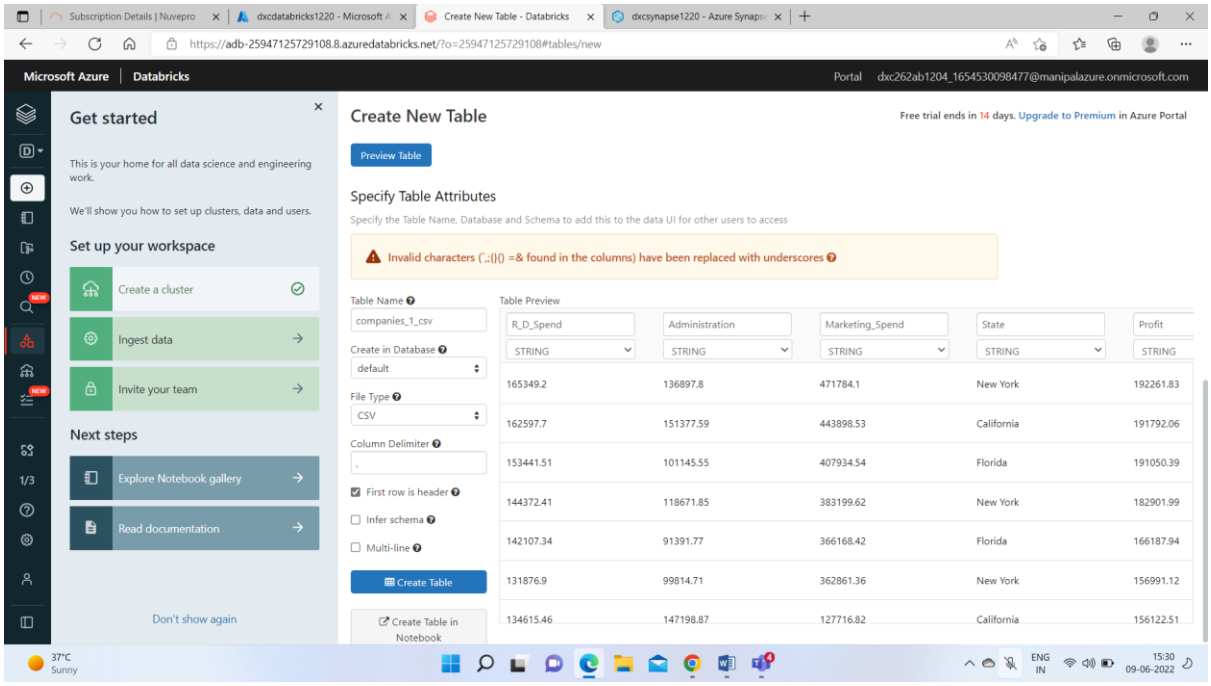


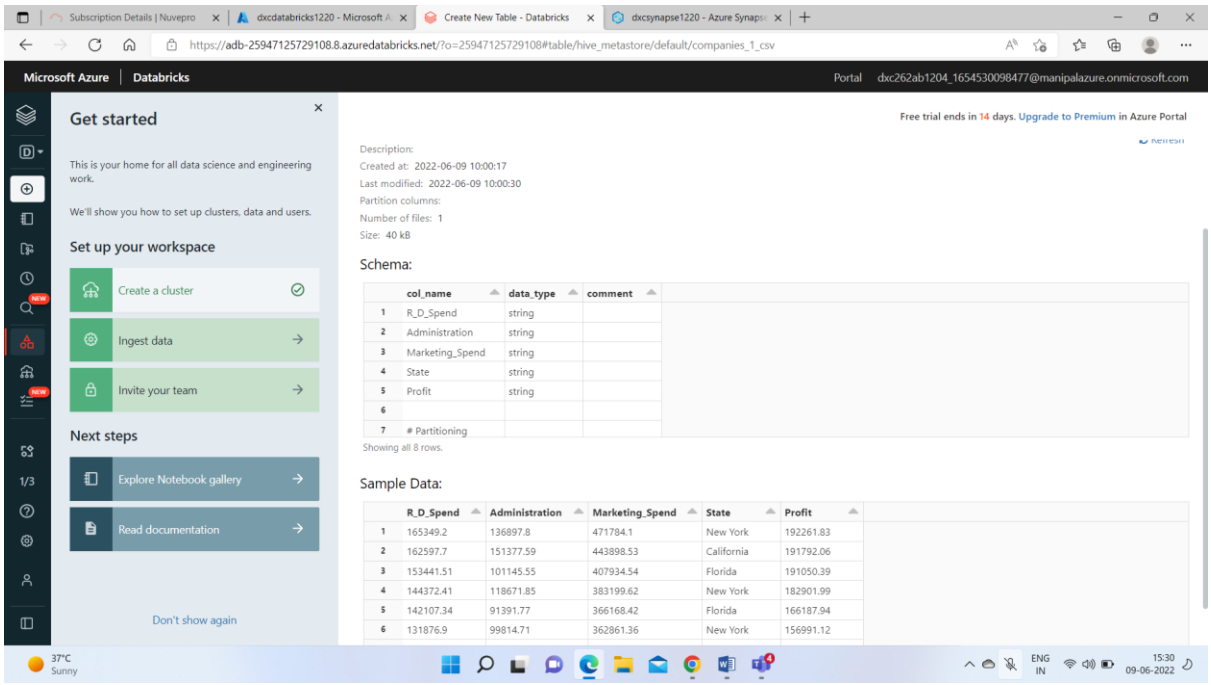


10. Explain the steps with screenshots how to insert data into databricks notebook & display the result?




Microsoft Azure | Databricks
Portal dxc262ab1204_1654530098477@manipalazure.onmicrosoft.com
Get started
This is your home for all data science and engineering work.
We'll show you how to set up clusters, data and users.
Set up your workspace
Create a cluster
Ingest data
Invite your team
Next steps
Explore Notebook gallery
Read documentation
Don't show again
2022-06-09 - DBFS Example
Python
Free trial ends in 14 days. Upgrade to Premium in Azure Portal
Schedule
Share
dxccluster1220
File
Edit
View: Standard
Run All
Clear
Comments
Experiment
display(df)
Cmd 3
# Create a view or table
temp_table_name = "Companies_csv"
df.createOrReplaceTempView(temp_table_name)
Cmd 4
%sql
/* Query the created temp table in a SQL cell */
select * from `Companies_csv`
Cmd 5
# With this registered as a temp view, it will only be available to this particular notebook. If you'd like other users to be able to query this table, you can also create a table from the DataFrame.
# Once saved, this table will persist across cluster restarts as well as allow various users across different notebooks to query this data.
# To do so, choose your table name and uncomment the bottom line.
permanent_table_name = "Companies_csv"
# df.write.format("parquet").saveAsTable(permanent_table_name)
37°C
Sunny
ENG
IN
15:19
09-06-2022


Subscription Details | Nuvepro
dxcdatabricks1220 - Microsoft
Create New Table - Databricks
dxcsynapse1220 - Azure Synaps
https://adb-2594712572910 8.8.azuredatabricks.net/?o=2594712572910 8#tables/new
Microsoft Azure | Databricks
Portal dxc262ab1204_1654530098477@manipalazure.onmicrosoft.com
Get started
This is your home for all data science and engineering work.
We'll show you how to set up clusters, data and users.
Set up your workspace
Create a cluster
Ingest data
Invite your team
Next steps
Explore Notebook gallery
Read documentation
Don't show again
Create New Table
Free trial ends in 14 days. Upgrade to Premium in Azure Portal
Preview Table
Specify Table Attributes
Specify the Table Name, Database and Schema to add this to the data UI for other users to access
Invalid characters (`,;{}() =& found in the columns) have been replaced with underscores
Table Name
companies_1_csv
Create in Database
default
File Type
CSV
Column Delimiter
,
First row is header
Infer schema
Multi-line
Create Table
Create Table in Notebook
Table Preview
R_D_Spend STRING
Administration STRING
Marketing_Spend STRING
State STRING
Profit STRING
165349.2 136897.8 471784.1 New York 192261.83
162597.7 151377.59 443898.53 California 191792.06
153441.51 101145.55 407934.54 Florida 191050.39
144372.41 118671.85 383199.62 New York 182901.99
142107.34 91391.77 366168.42 Florida 166187.94
131876.9 99814.71 362861.36 New York 156991.12
134615.46 147198.87 127716.82 California 156122.51
37°C Sunny
ENG IN
15:30 09-06-2022


Subscription Details | Nuvepro
dxcdatabricks1220 - Microsoft
Create New Table - Databricks
dxcsynapse1220 - Azure Synaps
https://adb-2594712572910 8.8.azuredatabricks.net/?o=2594712572910 8#table/hive_metastore/default/companies_1_csv
Microsoft Azure | Databricks
Portal dxc262ab1204_1654530098477@manipalazure.onmicrosoft.com
Get started
This is your home for all data science and engineering work.
We'll show you how to set up clusters, data and users.
Set up your workspace
Create a cluster
Ingest data
Invite your team
Next steps
Explore Notebook gallery
Read documentation
Don't show again
Free trial ends in 14 days. Upgrade to Premium in Azure Portal
Description:
Created at: 2022-06-09 10:00:17
Last modified: 2022-06-09 10:00:30
Partition columns:
Number of files: 1
Size: 40 kB
Schema:
col_name data_type comment
1 R_D_Spend string
2 Administration string
3 Marketing_Spend string
4 State string
5 Profit string
6
7 # Partitioning
Showing all 8 rows.
Sample Data:
R_D_Spend Administration Marketing_Spend State Profit
1 165349.2 136897.8 471784.1 New York 192261.83
2 162597.7 151377.59 443898.53 California 191792.06
3 153441.51 101145.55 407934.54 Florida 191050.39
4 144372.41 118671.85 383199.62 New York 182901.99
5 142107.34 91391.77 366168.42 Florida 166187.94
6 131876.9 99814.71 362861.36 New York 156991.12
37°C Sunny
ENG IN
15:30 09-06-2022

11. Explain the steps with screenshots how to create cluster in databricks ?