ASSIGNMENT-11

(17th JUNE 2022)

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BATCH – DXC-262-ANALYTICS-B12-AZURE COMPANY – DXC TECHNOLOGY

EMPLOYEE DOMAIN – AZURE ANALYTICS TRAINER NAME – MR. AJAY KUMAR

DATE OF SUBMISSION – 15th JUNE 2022 NO. OF QUESTIONS: 6

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1. Write a python program to predict car sales of a company by using the below data.

Year : 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

Sales in Millions : 169 199 262 301 345 398 501 595 610 700 720

Display the outcome using linear regression method.

Code for deploying it:

```
import matplotlib.pyplot as plt
import numpy as np
from sklearn import linear_model
year = [2010,2011,2012,2013,2014,2015,2016,2017,2018,2019,2020]
sales =  [169 , 199  , 262 ,  301,  345 , 398 ,  501,  595,  610 , 700 ,  720]
print(sales)
new_sales = np.array(sales).reshape((-1,1))
print(new_sales)
```

```
import matplotlib.pyplot as plt
import numpy as np
from sklearn import linear_model
year = [2010,2011,2012,2013,2014,2015,2016,2017,2018,2019,2020]
sales =  [169 , 199  , 262 ,  301,  345 ,  398 ,  501,  595,  610 , 700 ,  720]
print(sales)
new_sales = np.array(sales).reshape((-1,1))
print(new_sales)
```

```
[169, 199, 262, 301, 345, 398, 501, 595, 610, 700, 720]
[[169]
 [199]
 [262]
 [301]
 [345]
 [398]
 [501]
 [595]
 [610]
 [700]
 [720]]
```

```
reg_model=linear_model.LinearRegression()
reg_model.fit(new_sales,year)
print("Coefficient : ",reg_model.coef_)
print("Intercept : ", reg_model.intercept_)
```

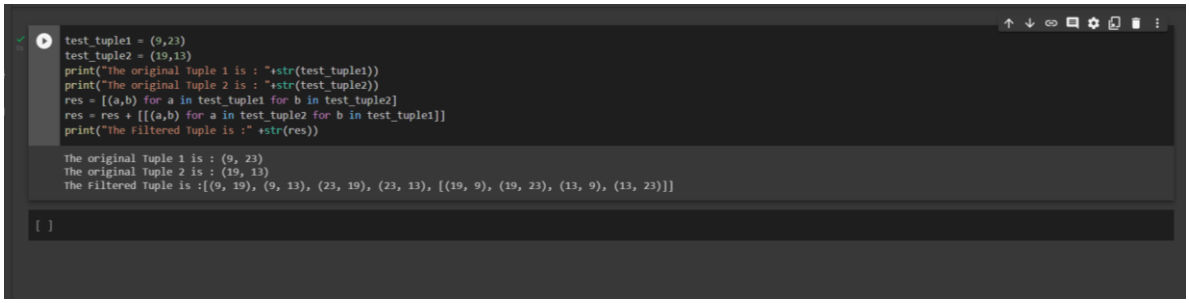
```
Coefficient :  [0.01654049]
Intercept :  2007.782331208535
```

```
def graph(formula,x_range):
  x=np.array(x_range)
  y=eval(formula)
  plt.plot(x,y)


graph('reg_model.coef_*x+reg_model.intercept_',range(100,1000))
plt.scatter(new_sales,year,color='purple')
plt.ylabel("Year")
plt.xlabel("Sales in Million")
plt.show()
```

2. Write a python program to generate possible tuples from any two sample lists.

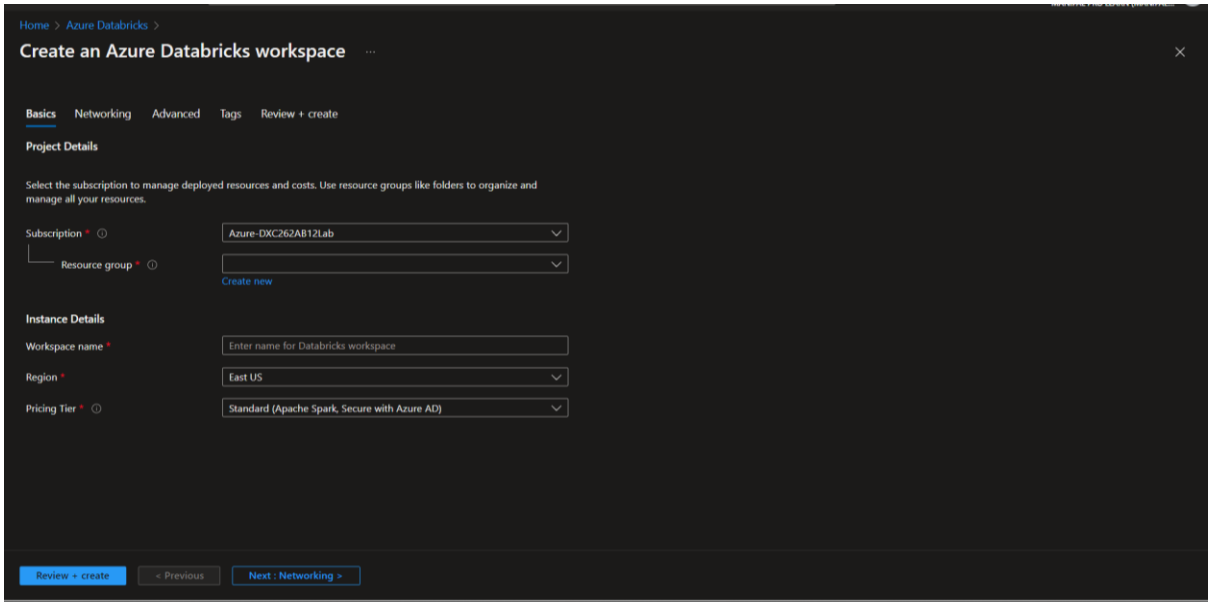
Code for deploying it:

```
test_tuple1 = (9,23)

test_tuple2 = (19,13)

print("The original Tuple 1 is : "+str(test_tuple1))

print("The original Tuple 2 is : "+str(test_tuple2))

res = [(a,b) for a in test_tuple1 for b in test_tuple2]

res = res + [[(a,b) for a in test_tuple2 for b in test_tuple1]]

print ("The Filtered Tuple is :" +str(res))
```



3. Create Azure Databricks and try to connect Databricks and power BI, explain the steps with screenshots.

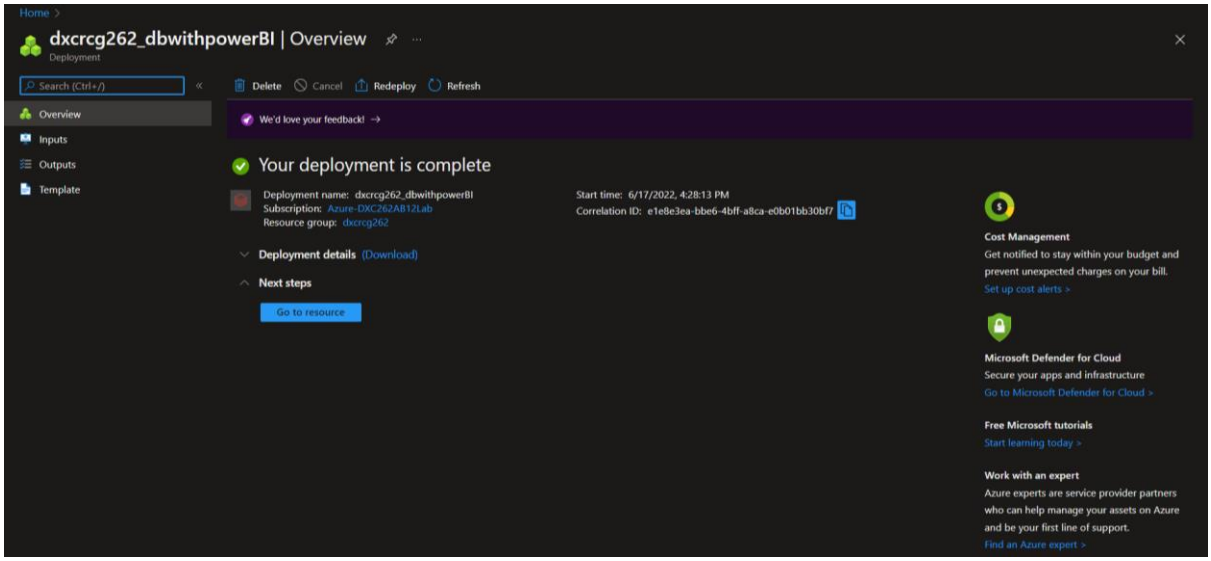
Step 1: Create Azure Databricks by selecting the Databricks option by searching it.



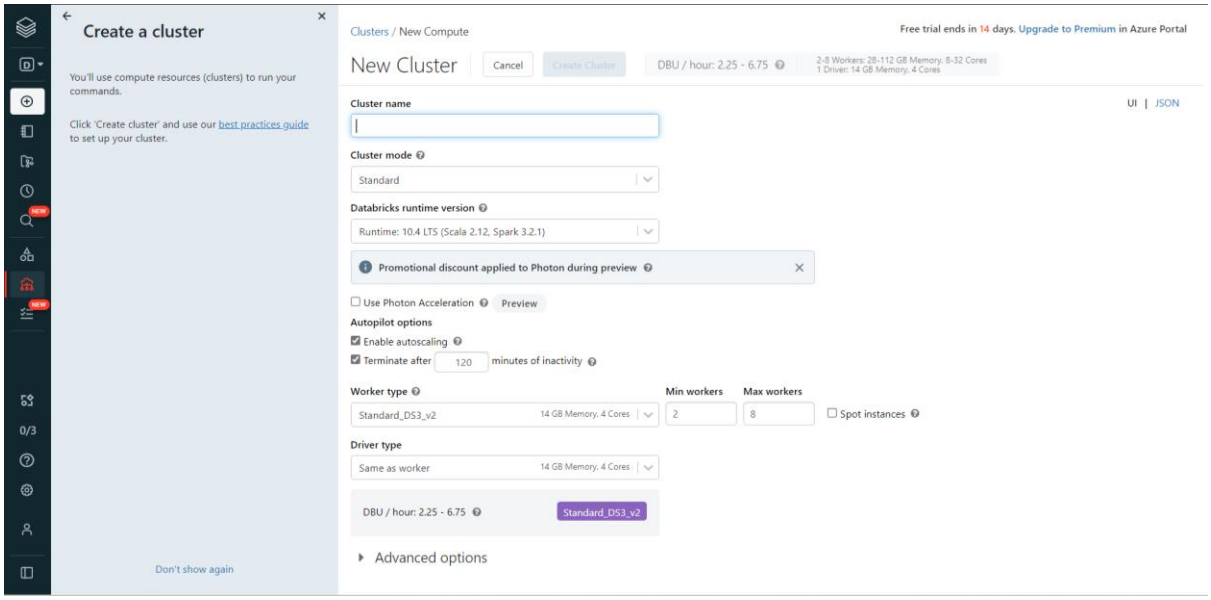
Fill in all the necessary details and click on **Review + Create.**

When the validation completes, click on create and wait for the deployment process to finish.

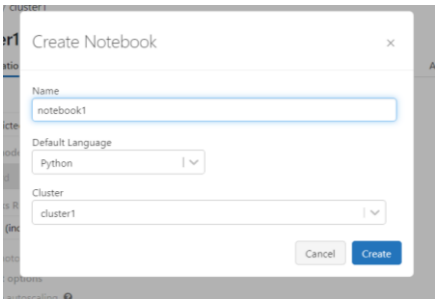
Step 2: After the deployment is completed, click on **Go To Resource**.



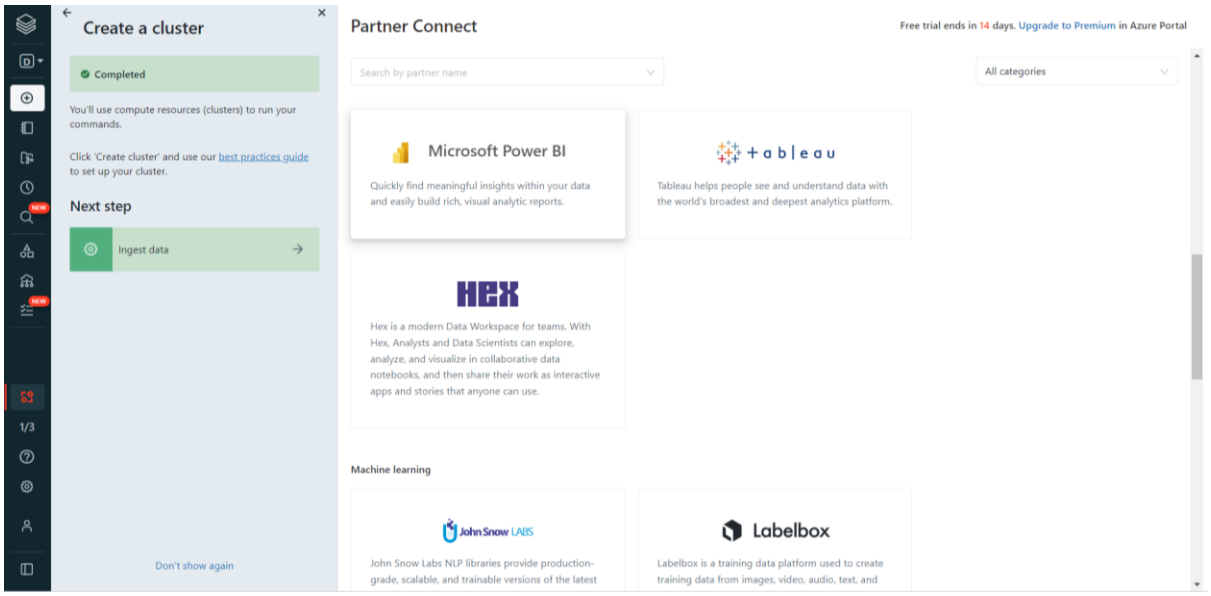
Step 3: After launching the workspace, first create a cluster.



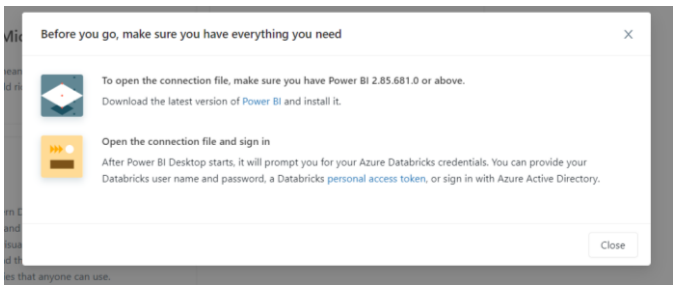
Step 4: Then, create a notebook for computing any code that we need to perform and link it to the previous created cluster.

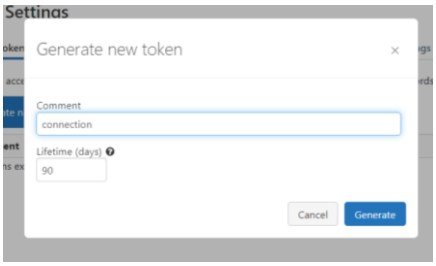


Step 5: Now, we need to create a table. While creating this table, we need to click on Partner Connect option to connect it with Power BI.



Step 6: Download the connection file and then use it. We need to generate and access token. For that, click on User settings and generate an access token.



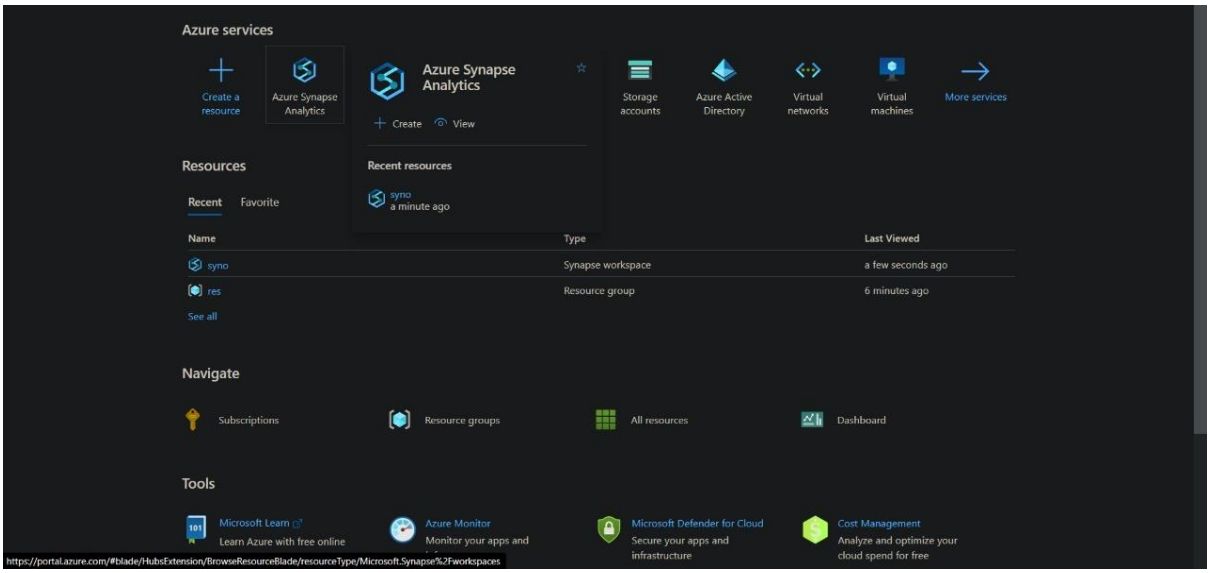


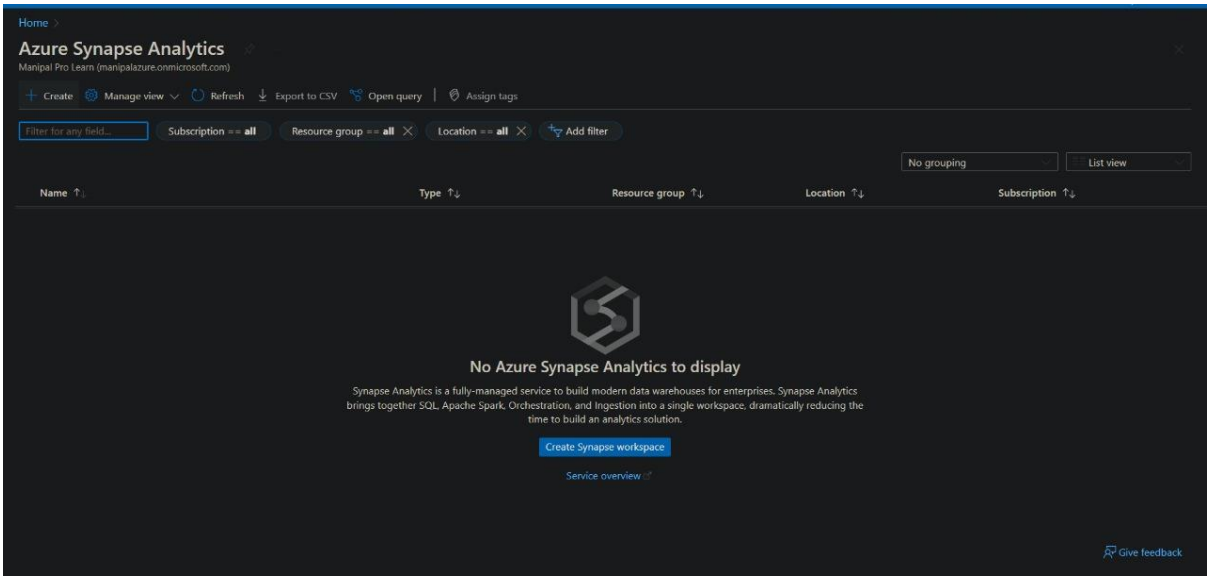
Copy the token code and save it for future use.

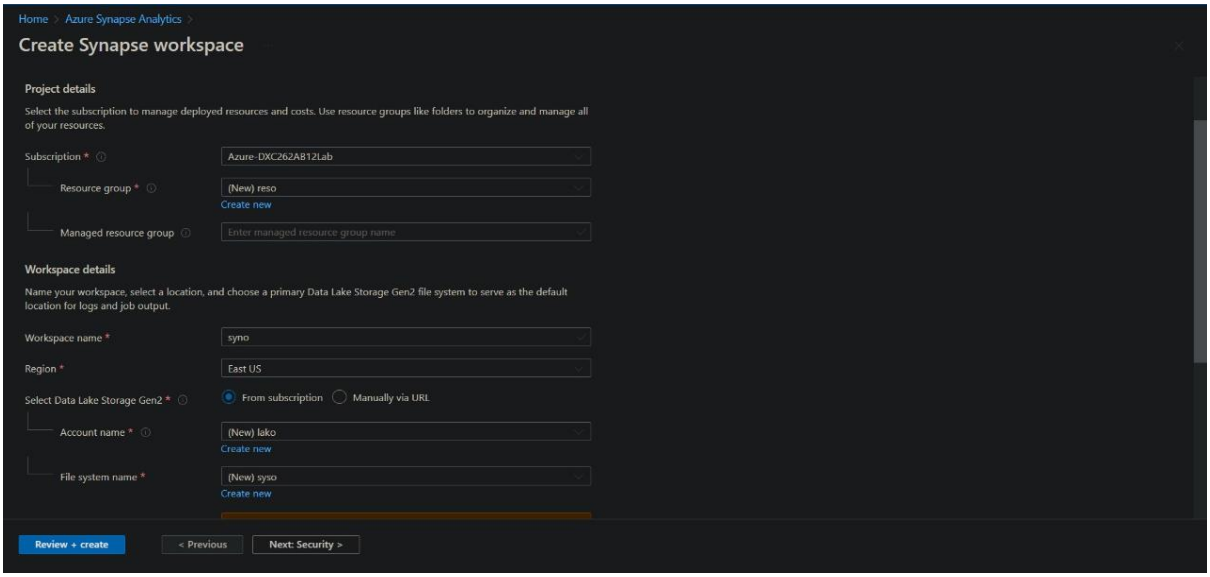
Step 7: Open the connection file and login using the access token. Now, you can load the data and perform analytics on it. We can plot and verify the data and present it in different formats.

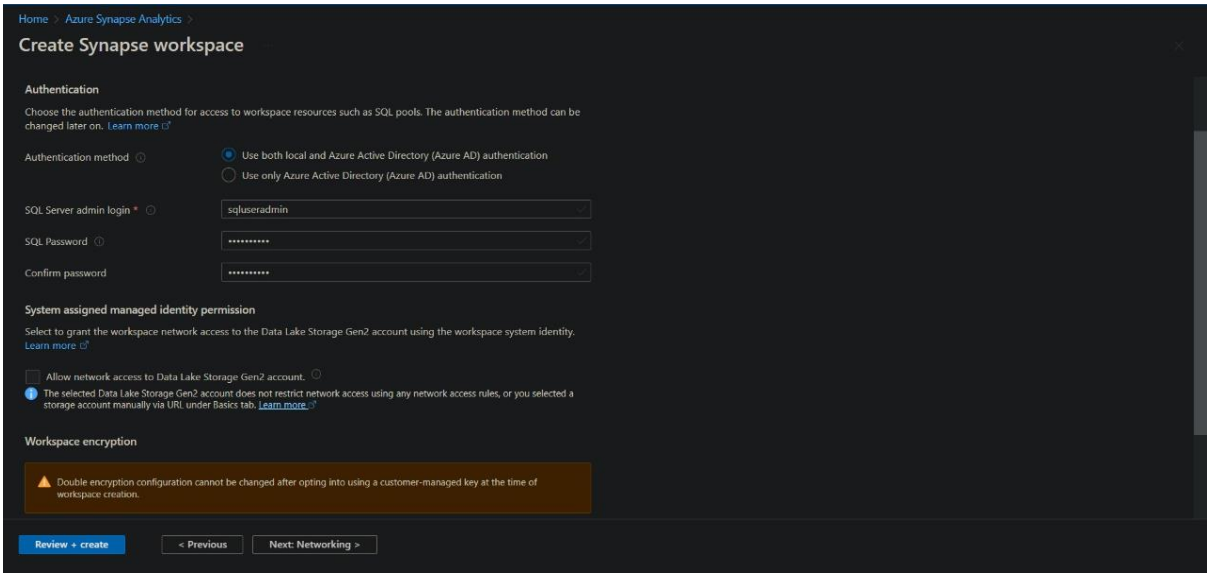
4. Create Azure Synapse and connect with Azure Blob, explain the steps with screenshots

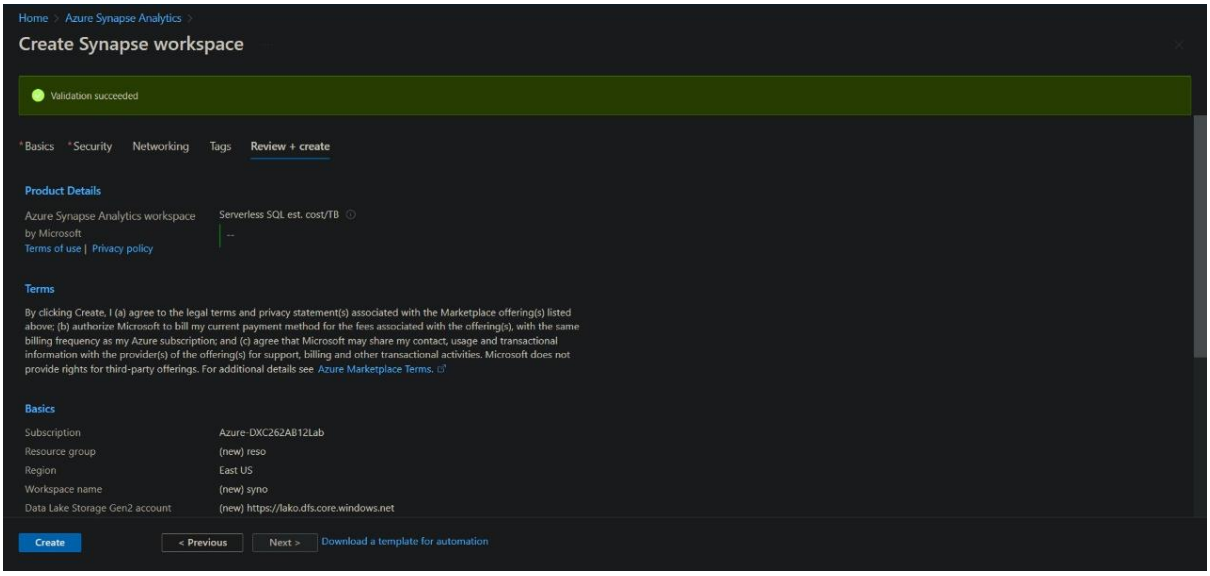
Azure Synapse and Azure blob storage can be integrated in order to copy data from one directory to another and to automate this process too. Follow the steps below in order to link both the services.

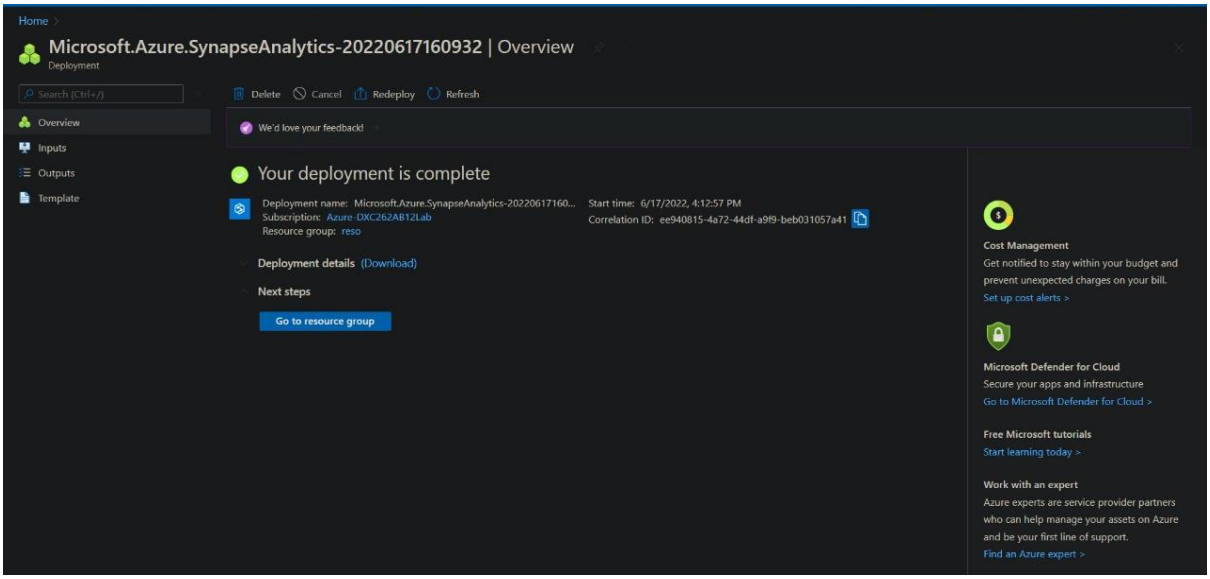


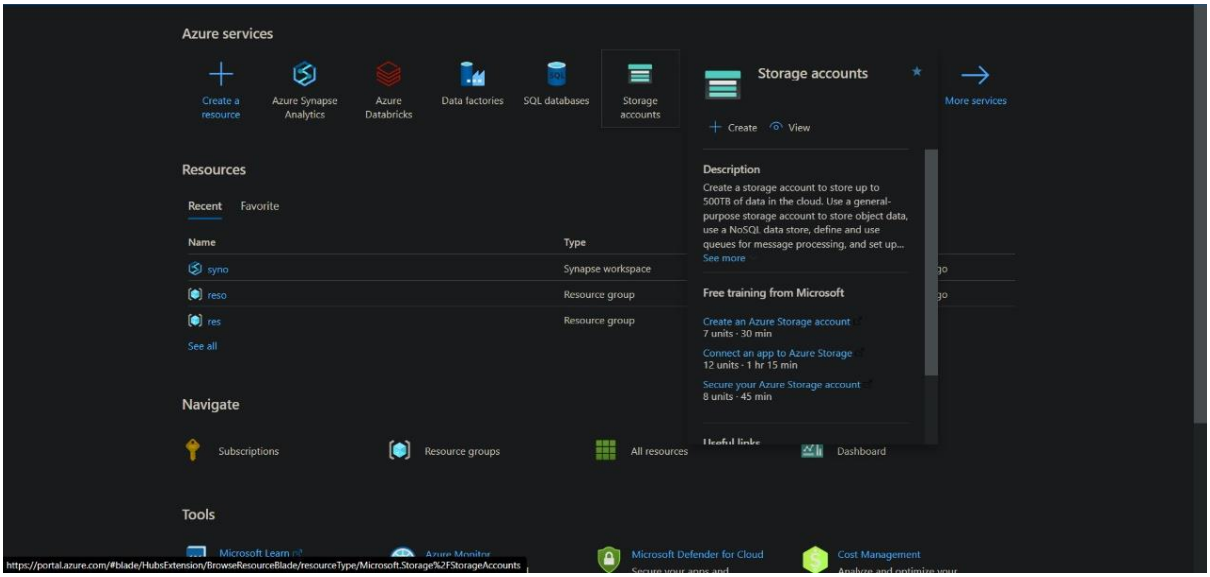

Home
Azure Synapse Analytics
Manipal Pro Learn (manipalazure.onmicrosoft.com)
Create
Manage view
Refresh
Export to CSV
Open query
Assign tags
Filter for any field...
Subscription == all
Resource group == all
Location == all
Add filter
No grouping
List view
Name
Type
Resource group
Location
Subscription
No Azure Synapse Analytics to display
Synapse Analytics is a fully-managed service to build modern data warehouses for enterprises. Synapse Analytics brings together SQL, Apache Spark, Orchestration, and Ingestion into a single workspace, dramatically reducing the time to build an analytics solution.
Create Synapse workspace
Service overview
Give feedback

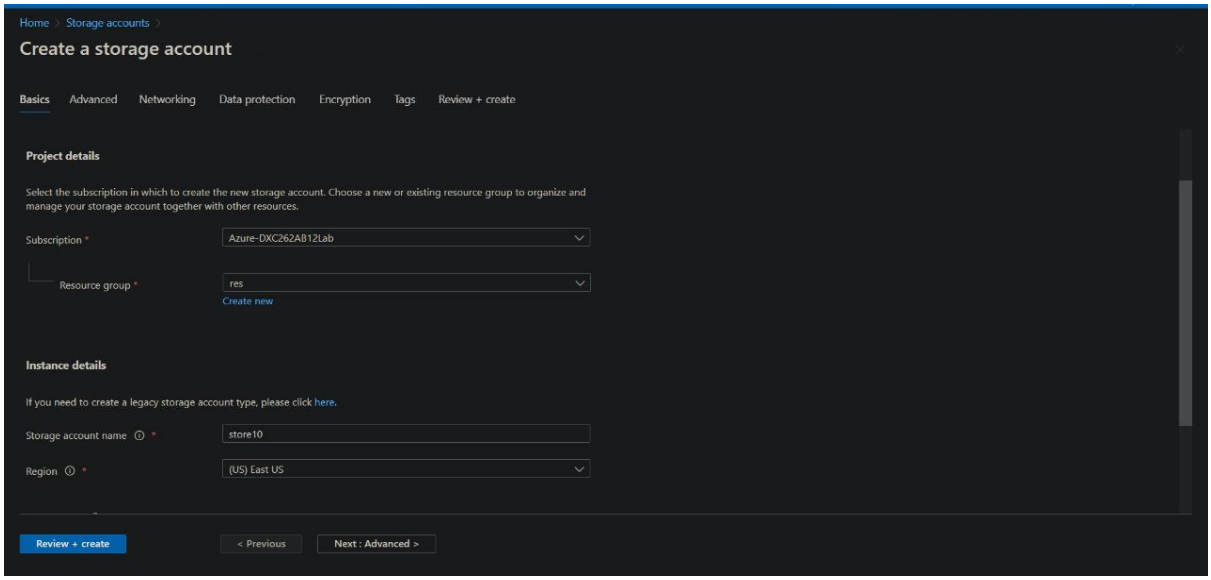

Home
Azure Synapse Analytics
Create Synapse workspace
Project details
Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all of your resources.
Subscription *
Azure-DXC262AB12Lab
Resource group *
(New) reso
Create new
Managed resource group
Enter managed resource group name
Workspace details
Name your workspace, select a location, and choose a primary Data Lake Storage Gen2 file system to serve as the default location for logs and job output.
Workspace name *
syno
Region *
East US
Select Data Lake Storage Gen2 *
From subscription
Manually via URL
Account name *
(New) lako
Create new
File system name *
(New) syso
Create new
Review + create
< Previous
Next: Security >

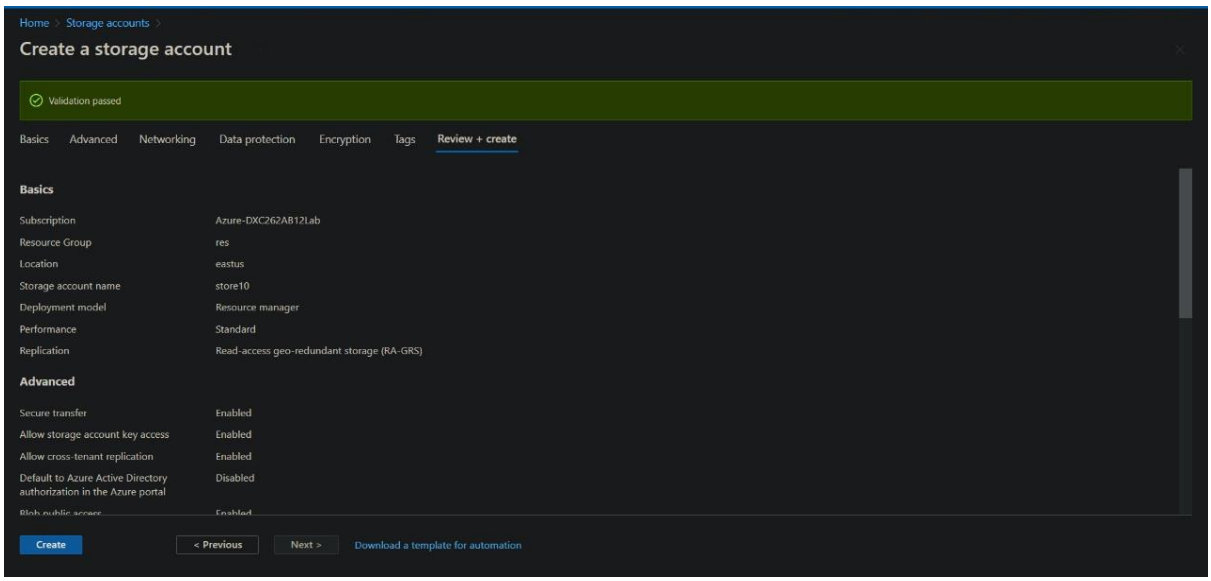

Home
Azure Synapse Analytics
Create Synapse workspace
Authentication
Choose the authentication method for access to workspace resources such as SQL pools. The authentication method can be changed later on. Learn more
Authentication method
Use both local and Azure Active Directory (Azure AD) authentication
Use only Azure Active Directory (Azure AD) authentication
SQL Server admin login *
sqluseradmin
SQL Password
Confirm password
System assigned managed identity permission
Select to grant the workspace network access to the Data Lake Storage Gen2 account using the workspace system identity. Learn more
Allow network access to Data Lake Storage Gen2 account.
The selected Data Lake Storage Gen2 account does not restrict network access using any network access rules, or you selected a storage account manually via URL under Basics tab. Learn more
Workspace encryption
Double encryption configuration cannot be changed after opting into using a customer-managed key at the time of workspace creation.
Review + create
< Previous
Next: Networking >

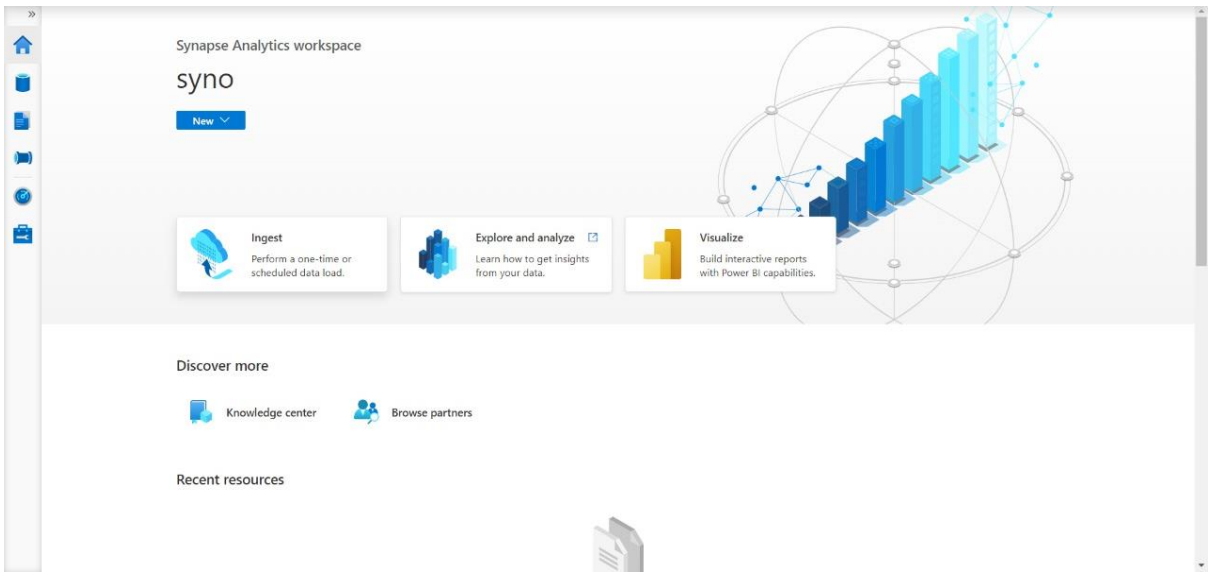

Home > Azure Synapse Analytics >
Create Synapse workspace
Validation succeeded
*Basics *Security Networking Tags Review + create
Product Details
Azure Synapse Analytics workspace
by Microsoft
Terms of use | Privacy policy
Serverless SQL est. cost/TB
--
Terms
By clicking Create, I (a) agree to the legal 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) reso
Region East US
Workspace name (new) syno
Data Lake Storage Gen2 account (new) https://lako.dfs.core.windows.net
Create
< Previous
Next >
Download a template for automation

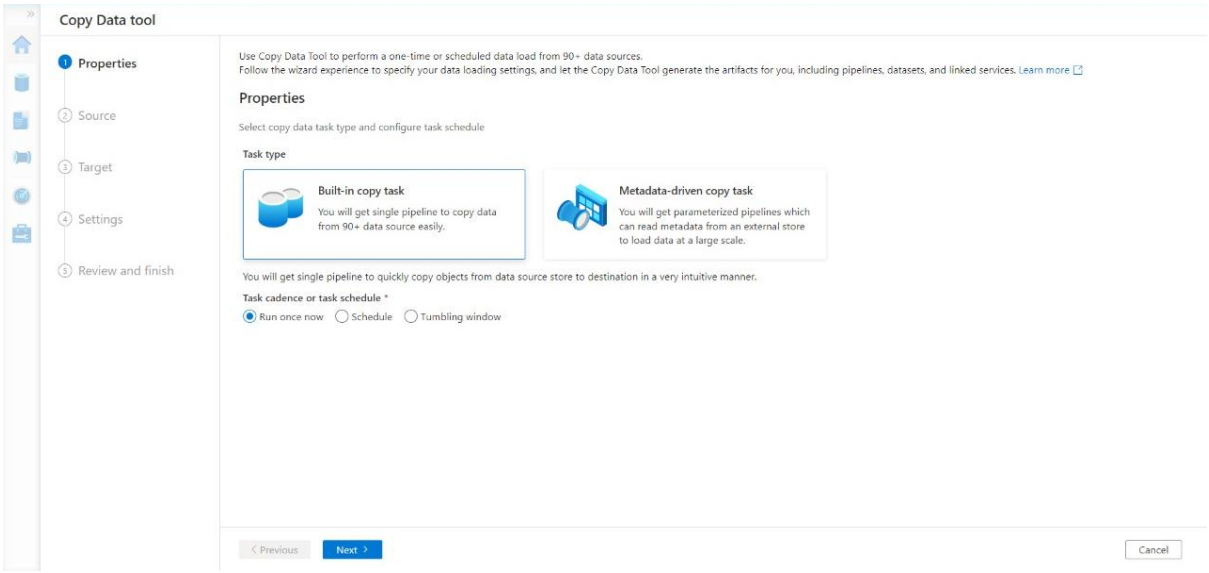

Home >
Microsoft.Azure.SynapseAnalytics-20220617160932 | Overview
Deployment
Search (Ctrl+/)
Delete Cancel Redeploy Refresh
Overview
Inputs
Outputs
Template
We'd love your feedback!
Your deployment is complete
Deployment name: Microsoft.Azure.SynapseAnalytics-20220617160...
Subscription: Azure-DXC262AB12Lab
Resource group: reso
Start time: 6/17/2022, 4:12:57 PM
Correlation ID: ee940815-4a72-44df-a9f9-beb031057a41
Deployment details (Download)
Next steps
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 >

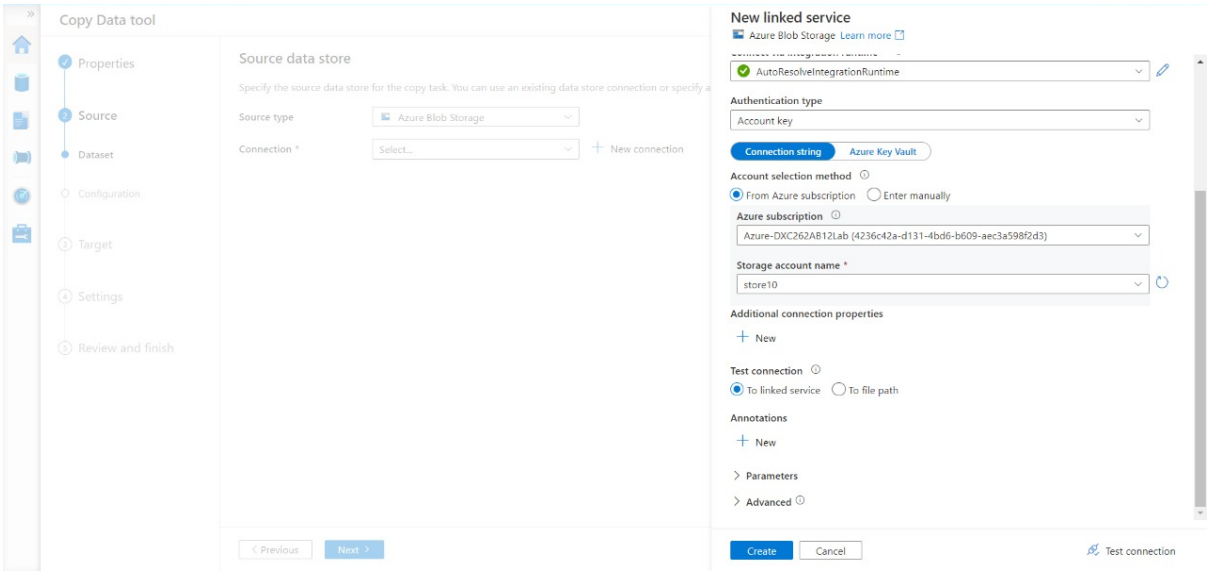

Azure services
Create a resource
Azure Synapse Analytics
Azure Databricks
Data factories
SQL databases
Storage accounts
More services
Storage accounts
Create View
Description
Create a storage account to store up to 500TB of data in the cloud. Use a general-purpose storage account to store object data, use a NoSQL data store, define and use queues for message processing, and set up...
See more
Free training from Microsoft
Create an Azure Storage account
7 units · 30 min
Connect an app to Azure Storage
12 units · 1 hr 15 min
Secure your Azure Storage account
8 units · 45 min
Resources
Recent Favorite
Name Type
syno Synapse workspace
reso Resource group
res Resource group
See all
Navigate
Subscriptions
Resource groups
All resources
Dashboard
Tools
Microsoft Learn
Azure Monitor
Microsoft Defender for Cloud
Cost Management
https://portal.azure.com/#blade/HubsExtension/BrowseResourceBlade/resourceType/Microsoft.Storage%2FStorageAccounts

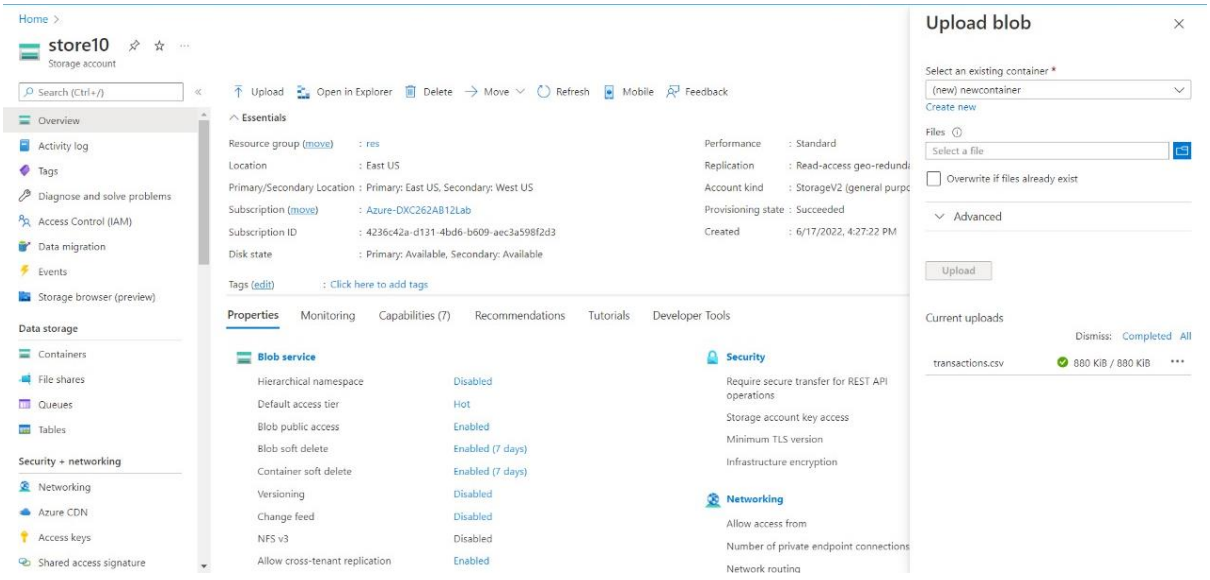

Home > Storage accounts >
Create a storage account
Basics Advanced Networking Data protection Encryption Tags Review + create
Project details
Select the subscription in which to create the new storage account. Choose a new or existing resource group to organize and manage your storage account together with other resources.
Subscription * Azure-DXC262AB12Lab
Resource group * res
Create new
Instance details
If you need to create a legacy storage account type, please click here.
Storage account name * store10
Region * (US) East US
Review + create
< Previous
Next : Advanced >

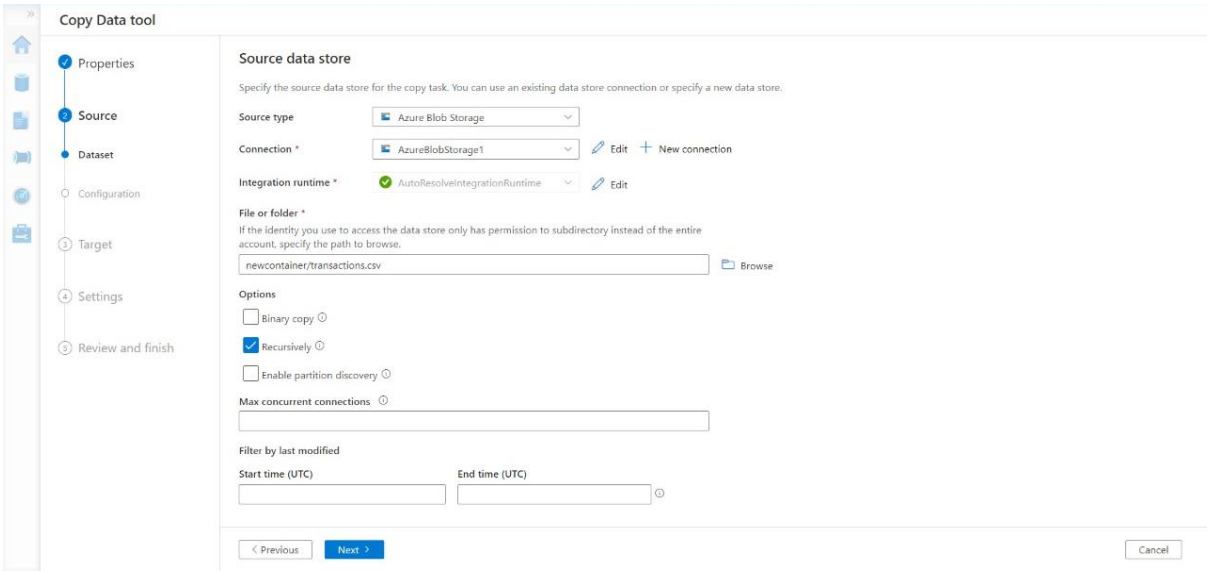

Home > Storage accounts >
Create a storage account
Validation passed
Basics Advanced Networking Data protection Encryption Tags Review + create
Basics
Subscription Azure-DXC262AB12Lab
Resource Group res
Location eastus
Storage account name store10
Deployment model Resource manager
Performance Standard
Replication Read-access geo-redundant storage (RA-GRS)
Advanced
Secure transfer Enabled
Allow storage account key access Enabled
Allow cross-tenant replication Enabled
Default to Azure Active Directory authorization in the Azure portal Disabled
Create
< Previous
Next >
Download a template for automation

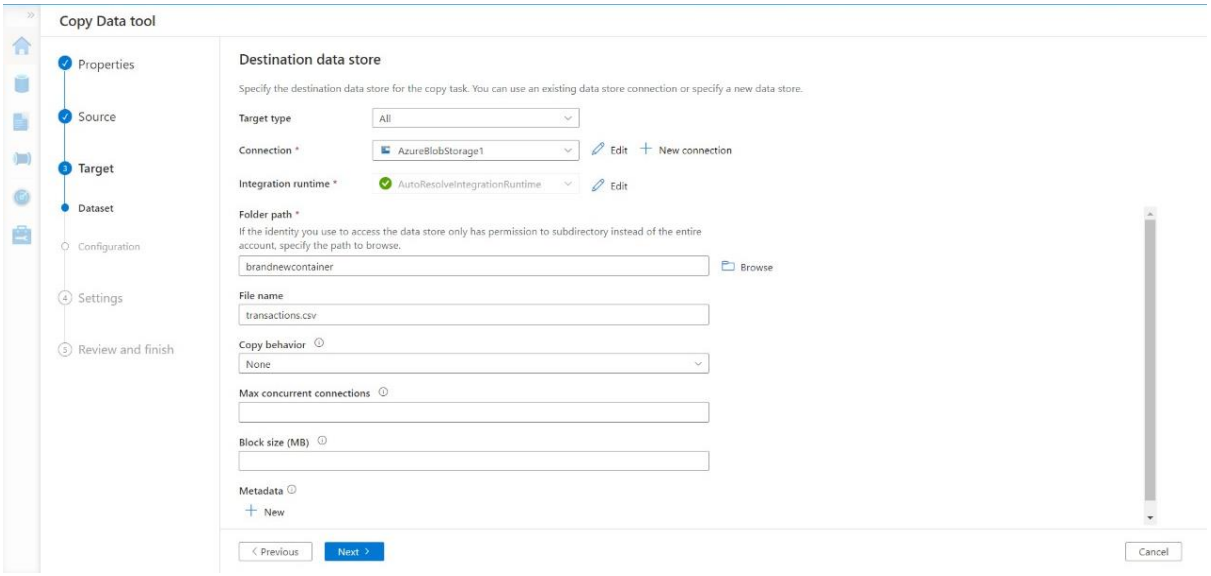

Synapse Analytics workspace
syno
New
Ingest
Perform a one-time or scheduled data load.
Explore and analyze
Learn how to get insights from your data.
Visualize
Build interactive reports with Power BI capabilities.
Discover more
Knowledge center
Browse partners
Recent resources

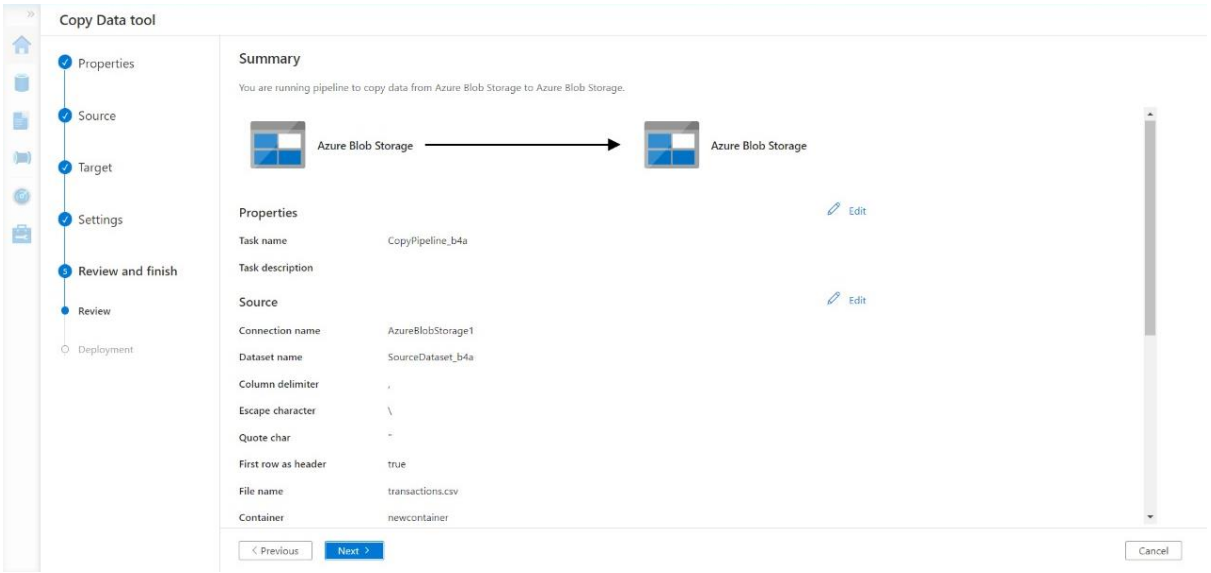

Copy Data tool
Properties
Source
Target
Settings
Review and finish
Use Copy Data Tool to perform a one-time or scheduled data load from 90+ data sources.
Follow the wizard experience to specify your data loading settings, and let the Copy Data Tool generate the artifacts for you, including pipelines, datasets, and linked services. Learn more
Properties
Select copy data task type and configure task schedule
Task type
Built-in copy task
You will get single pipeline to copy data from 90+ data source easily.
Metadata-driven copy task
You will get parameterized pipelines which can read metadata from an external store to load data at a large scale.
You will get single pipeline to quickly copy objects from data source store to destination in a very intuitive manner.
Task cadence or task schedule *
Run once now
Schedule
Tumbling window
Previous
Next
Cancel

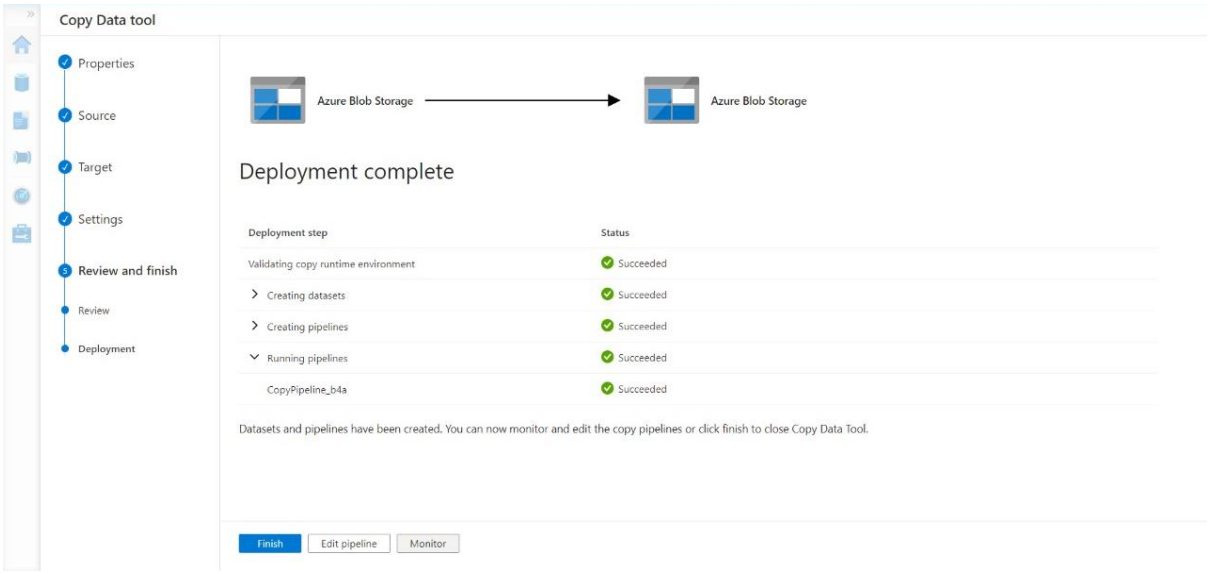

Copy Data tool
Properties
Source
Dataset
Configuration
Target
Settings
Review and finish
Source data store
Source type
Azure Blob Storage
Connection *
Select...
New connection
Previous
Next
New linked service
Azure Blob Storage Learn more
AutoResolveIntegrationRuntime
Authentication type
Account key
Connection string
Azure Key Vault
Account selection method
From Azure subscription
Enter manually
Azure subscription
Azure-DXC262AB12Lab (4236c42a-d131-4bd6-b609-aec3a598f2d3)
Storage account name *
store10
Additional connection properties
New
Test connection
To linked service
To file path
Annotations
New
Parameters
Advanced
Create
Cancel
Test connection

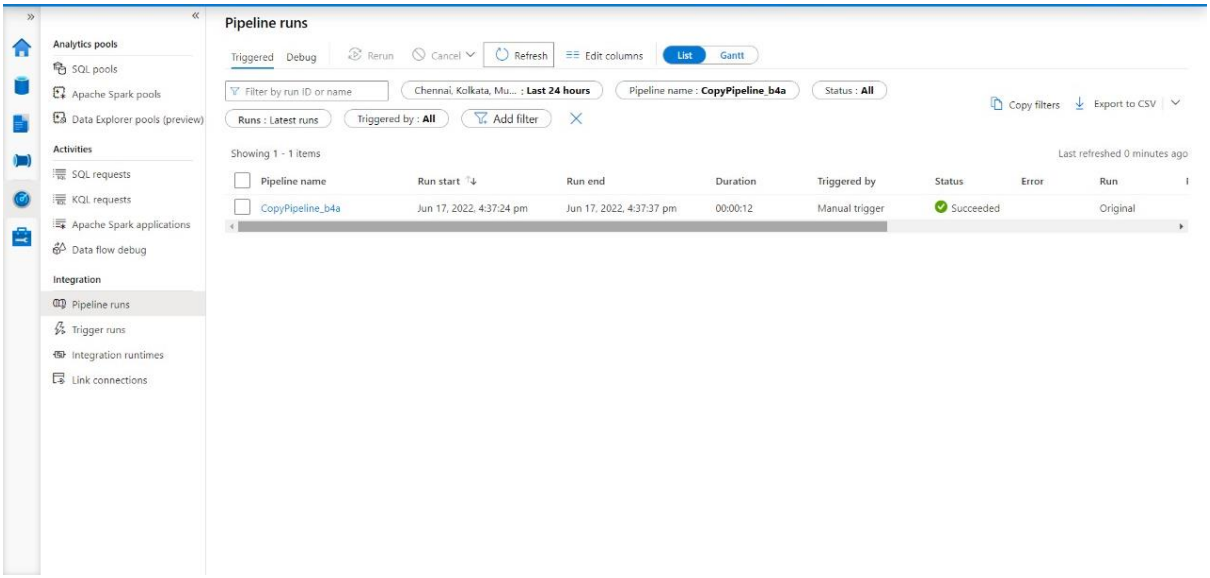

Home
store10
Storage account
Search (Ctrl+/)
Upload
Open in Explorer
Delete
Move
Refresh
Mobile
Feedback
Overview
Activity log
Tags
Diagnose and solve problems
Access Control (IAM)
Data migration
Events
Storage browser (preview)
Data storage
Containers
File shares
Queues
Tables
Security + networking
Networking
Azure CDN
Access keys
Shared access signature
Essentials
Resource group (move) : res
Location : East US
Primary/Secondary Location : Primary: East US, Secondary: West US
Subscription (move) : Azure-DXC262AB12Lab
Subscription ID : 4236c42a-d131-4bd6-b609-aec3a598f2d3
Disk state : Primary: Available, Secondary: Available
Performance : Standard
Replication : Read-access geo-redundi
Account kind : StorageV2 (general purpc
Provisioning state : Succeeded
Created : 6/17/2022, 4:27:22 PM
Tags (edit) : Click here to add tags
Properties
Monitoring
Capabilities (7)
Recommendations
Tutorials
Developer Tools
Blob service
Hierarchical namespace Disabled
Default access tier Hot
Blob public access Enabled
Blob soft delete Enabled (7 days)
Container soft delete Enabled (7 days)
Versioning Disabled
Change feed Disabled
NFS v3 Disabled
Allow cross-tenant replication Enabled
Security
Require secure transfer for REST API operations
Storage account key access
Minimum TLS version
Infrastructure encryption
Networking
Allow access from
Number of private endpoint connections
Network routing
Upload blob
Select an existing container *
(new) newcontainer
Create new
Files
Select a file
Overwrite if files already exist
Advanced
Upload
Current uploads
Dismiss: Completed All
transactions.csv
880 KiB / 880 KiB


Copy Data tool
Properties
Source
Dataset
Configuration
Target
Settings
Review and finish
Source data store
Specify the source data store for the copy task. You can use an existing data store connection or specify a new data store.
Source type
Azure Blob Storage
Connection *
AzureBlobStorage1
Edit
New connection
Integration runtime *
AutoResolveIntegrationRuntime
Edit
File or folder *
If the identity you use to access the data store only has permission to subdirectory instead of the entire account, specify the path to browse.
newcontainer/transactions.csv
Browse
Options
Binary copy
Recursively
Enable partition discovery
Max concurrent connections
Filter by last modified
Start time (UTC)
End time (UTC)
Previous
Next
Cancel


Copy Data tool
Properties
Source
Target
Dataset
Configuration
Settings
Review and finish
Destination data store
Specify the destination data store for the copy task. You can use an existing data store connection or specify a new data store.
Target type
All
Connection *
AzureBlobStorage1
Edit
New connection
Integration runtime *
AutoResolveIntegrationRuntime
Edit
Folder path *
If the identity you use to access the data store only has permission to subdirectory instead of the entire account, specify the path to browse.
brandnewcontainer
Browse
File name
transactions.csv
Copy behavior
None
Max concurrent connections
Block size (MB)
Metadata
New
Previous
Next
Cancel


Copy Data tool
Properties
Source
Target
Settings
Review and finish
Review
Deployment
Summary
You are running pipeline to copy data from Azure Blob Storage to Azure Blob Storage.
Azure Blob Storage
Azure Blob Storage
Properties
Edit
Task name
CopyPipeline_b4a
Task description
Source
Edit
Connection name
AzureBlobStorage1
Dataset name
SourceDataset_b4a
Column delimiter
,
Escape character
\
Quote char
"
First row as header
true
File name
transactions.csv
Container
newcontainer
Previous
Next
Cancel

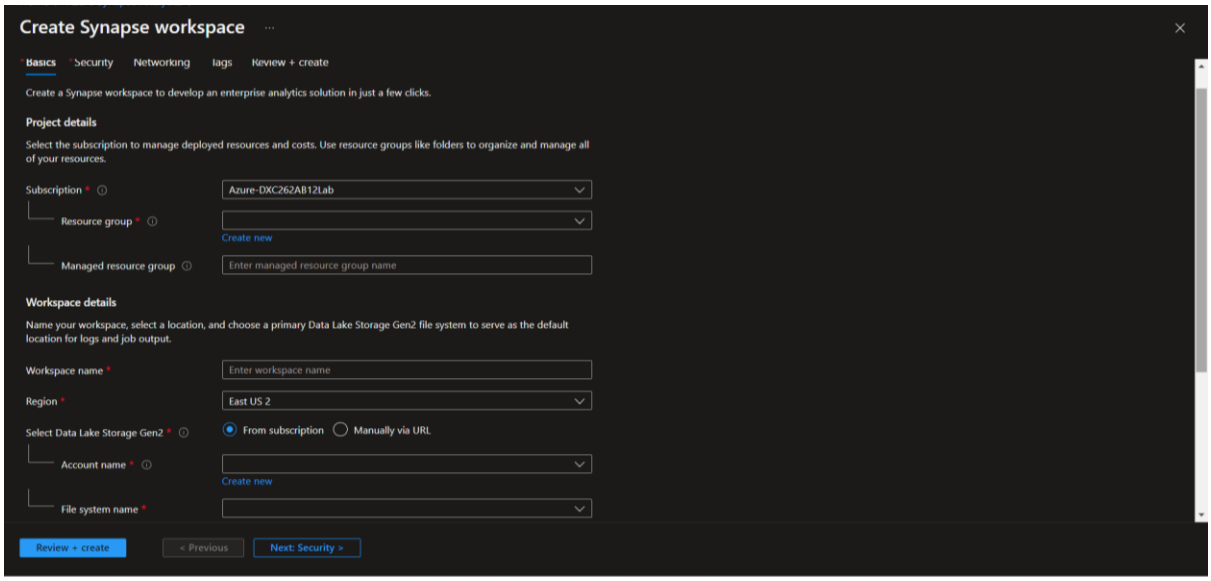




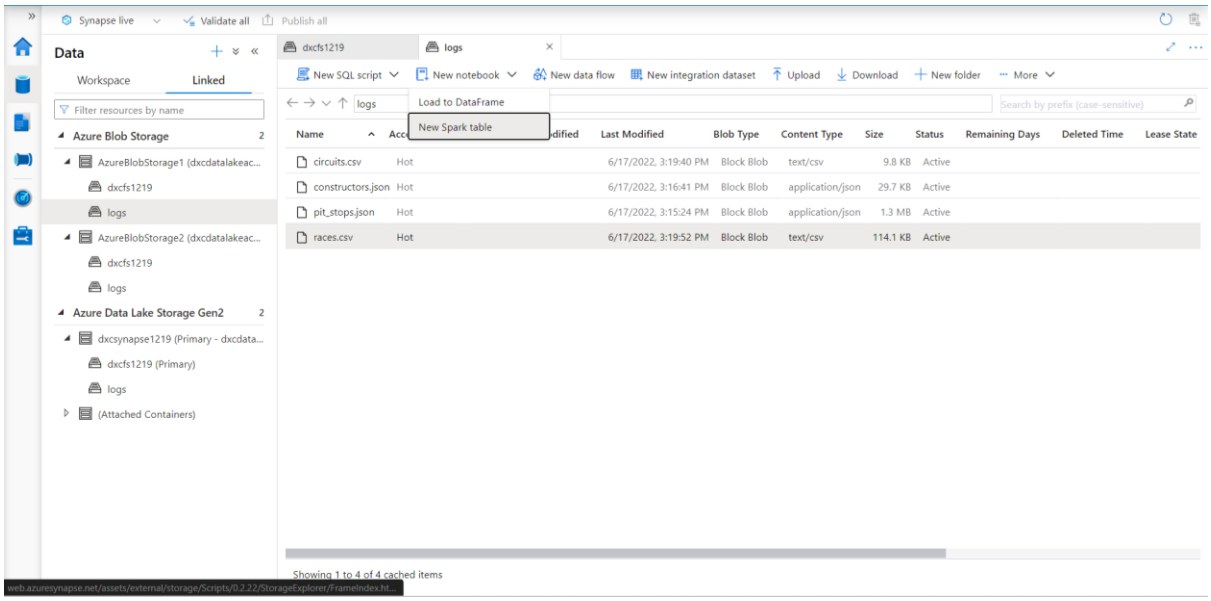
Here we have successfully triggered a pipeline that will copy the content of the new container into the brand-new container.

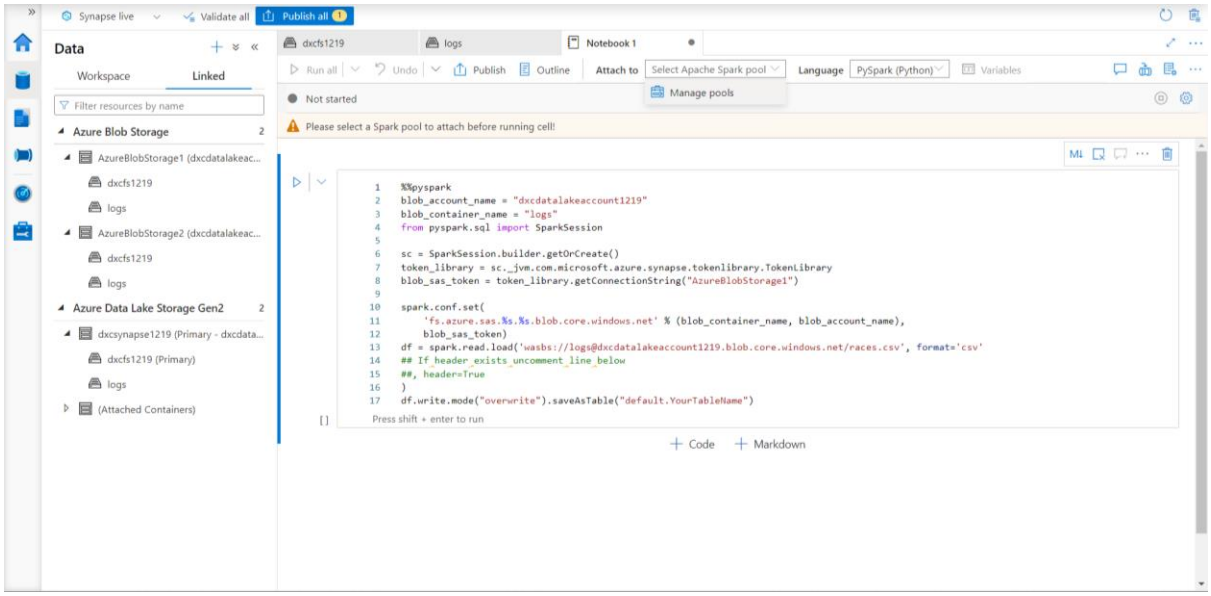
5. Create Azure Synapse Spark pool and query sample JSON file, Explain the steps with screenshots.

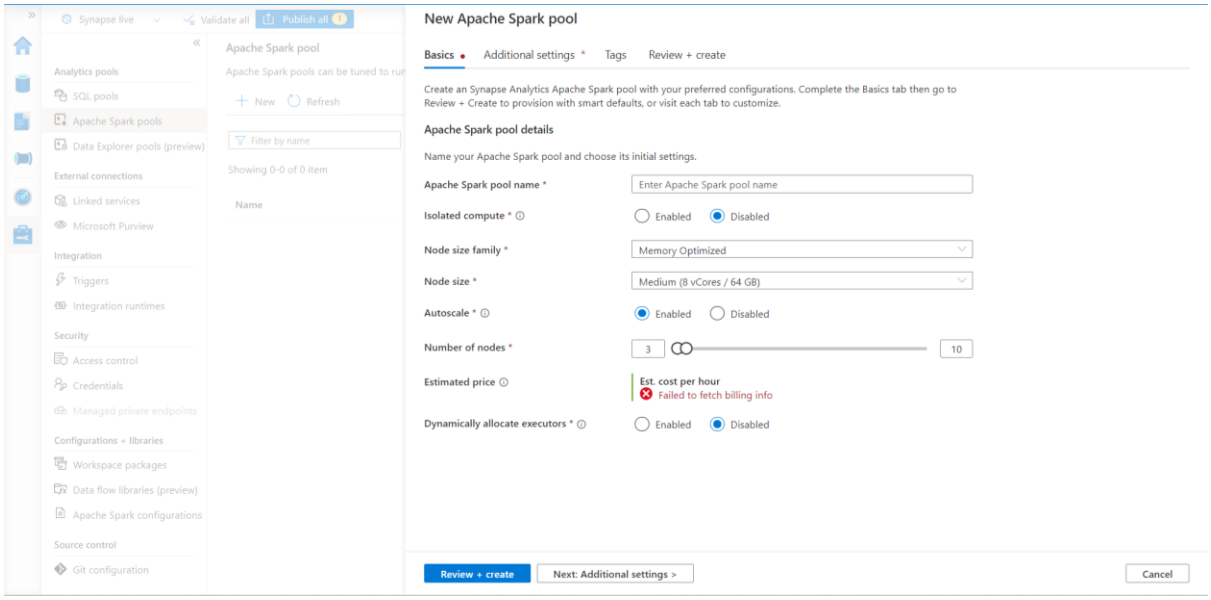
Step 1: Fill in all the details required for creating the Azure Cosmos DB and click on **Review + Create**.



Step 2: After the deployment is finished, click on Go To Resource.







%%pyspark

blob_account_name = "dxcdatalakeaccount1219"

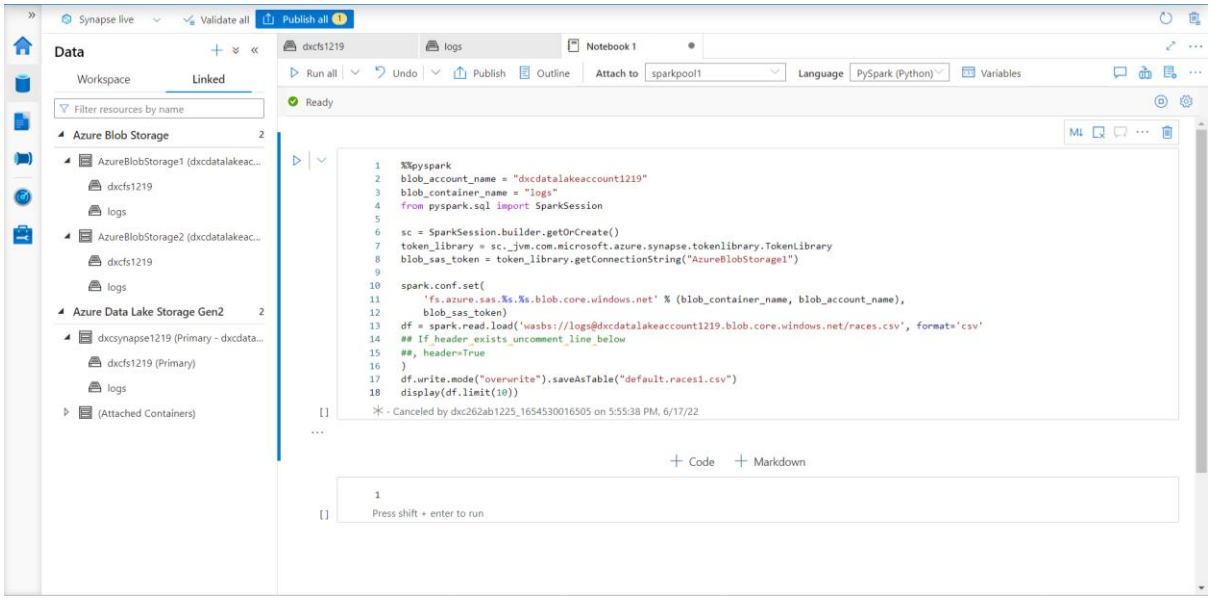
blob_container_name = "logs"

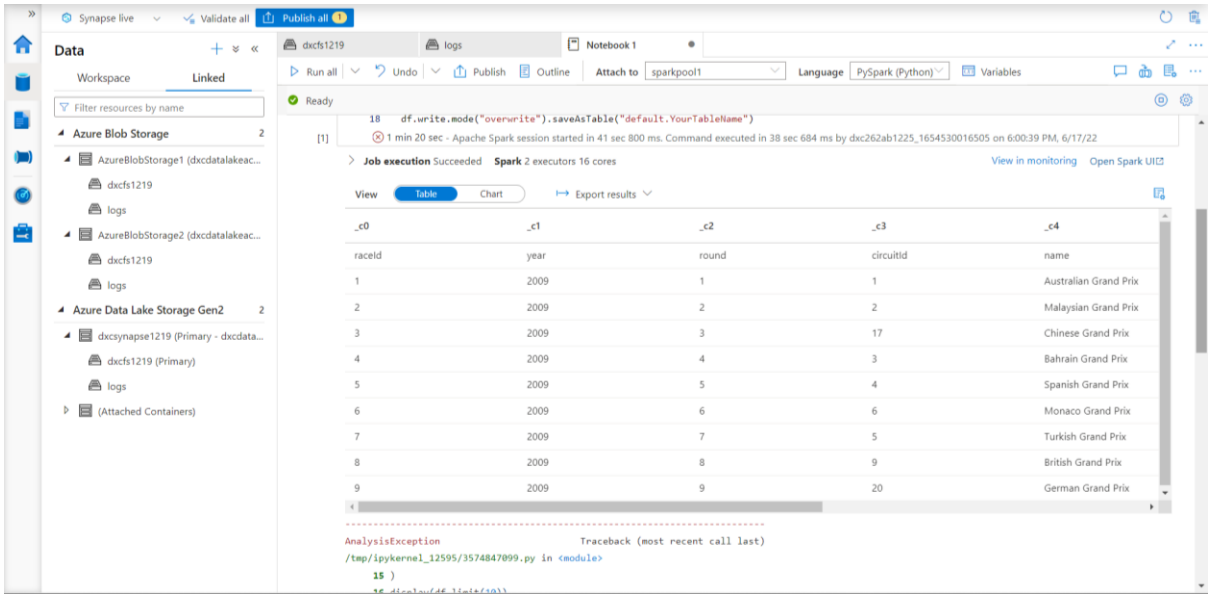
from pyspark.sql import SparkSession

sc = SparkSession.builder.getOrCreate()

token_library = sc._jvm.com.microsoft.azure.synapse.tokenlibrary.TokenLibrary

```
blob_sas_token = token_library.getConnectionString("AzureBlobStorage1")


spark.conf.set(
    'fs.azure.sas.%s.%s.blob.core.windows.net' % (blob_container_name, blob_account_name),
    blob_sas_token)
df = spark.read.load('wasbs://logs@dxcdatalakeaccount1219.blob.core.windows.net/races.csv', format='csv'
## If header exists uncomment line below
##, header=True
)
df.write.mode("overwrite").saveAsTable("default.races.csv")
```

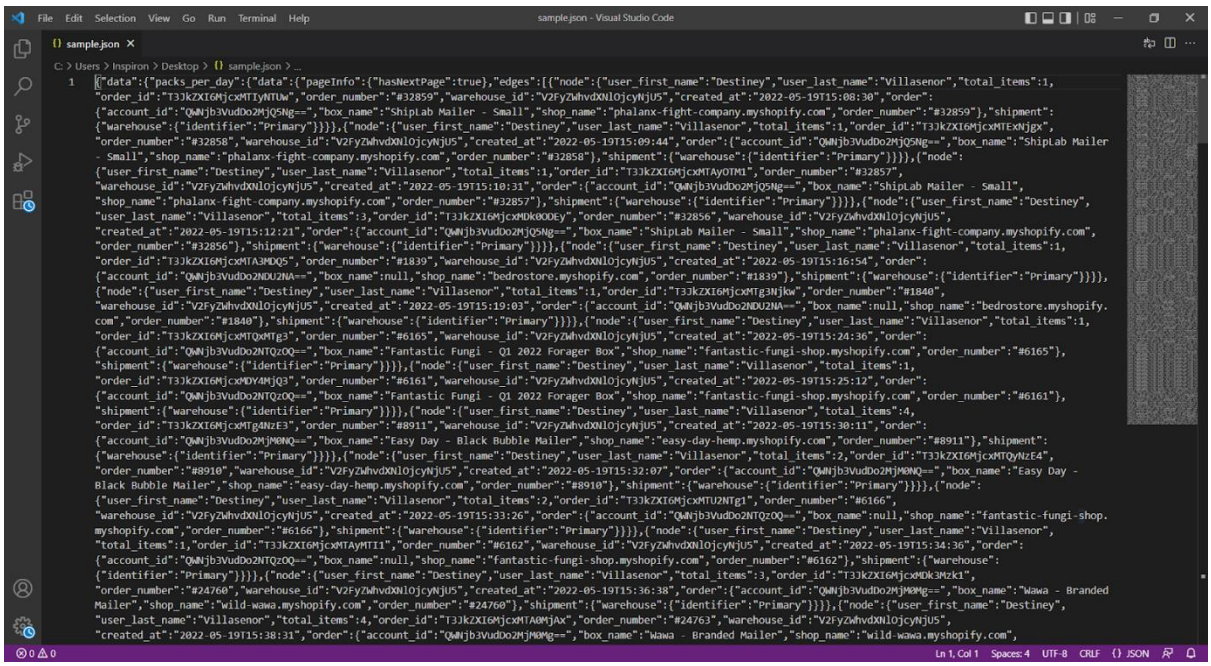




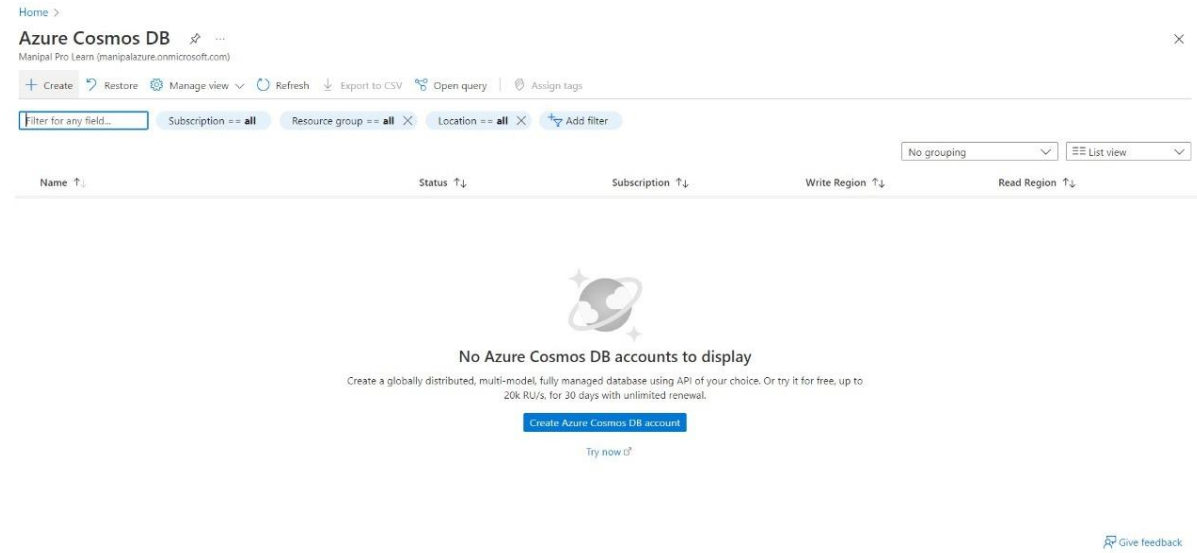
_c0	_c1	_c2	_c3	_c4
raceId	year	round	circuitId	name
1	2009	1	1	Australian Grand Prix
2	2009	2	2	Malaysian Grand Prix
3	2009	3	17	Chinese Grand Prix
4	2009	4	3	Bahrain Grand Prix
5	2009	5	4	Spanish Grand Prix
6	2009	6	6	Monaco Grand Prix
7	2009	7	5	Turkish Grand Prix
8	2009	8	9	British Grand Prix
9	2009	9	20	German Grand Prix

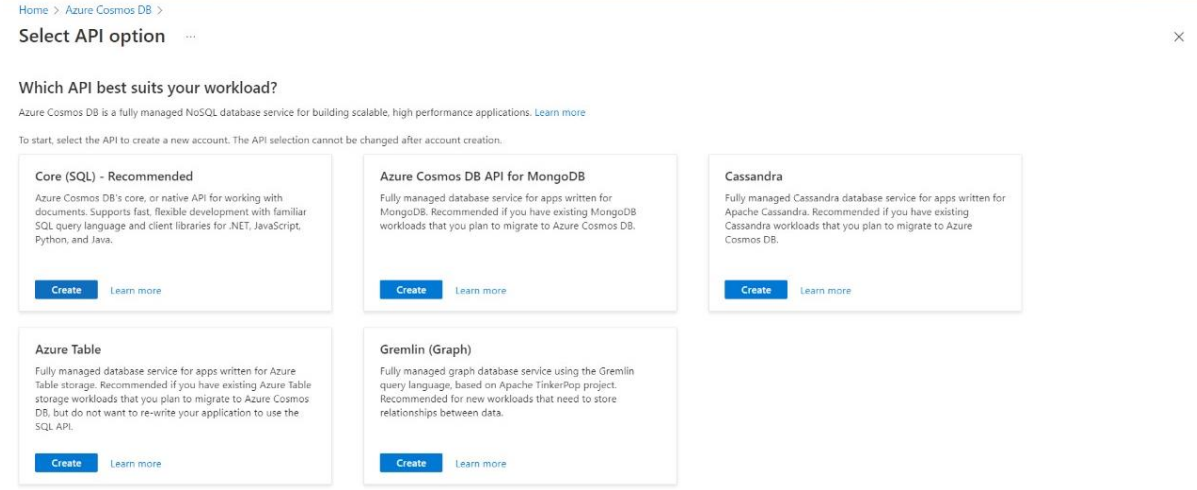
6.Create Azure Cosmos DB & import sample JSON file, explain the steps with screenshots

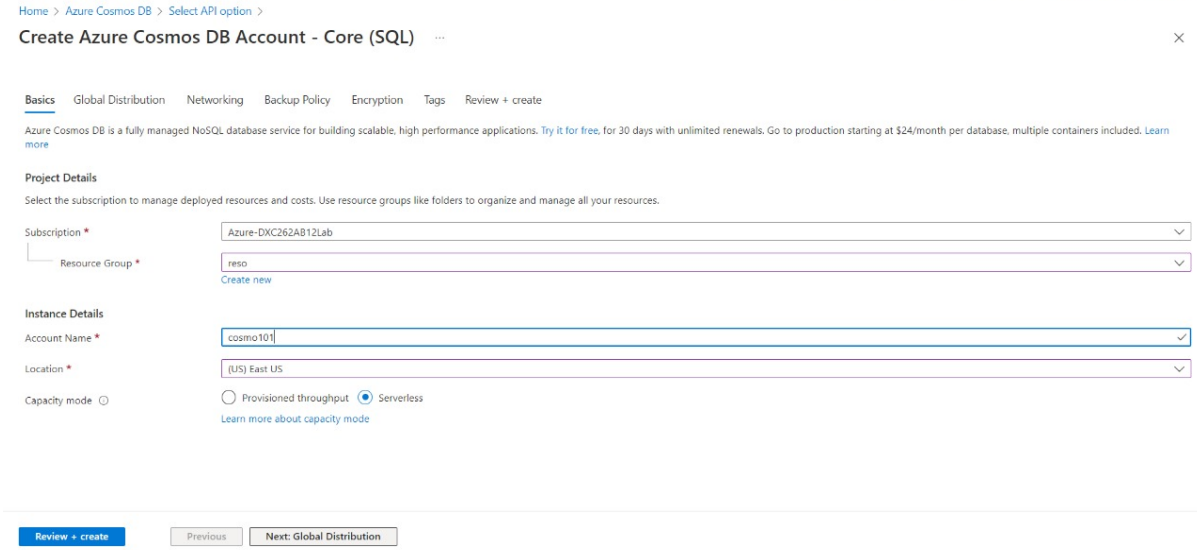
Cosmos DB can be used to store all kind of data including the Unstructured and semi-structured data i.e JSON data. Follow the steps in order to create a Cosmos DB account and upload JSON data into it.

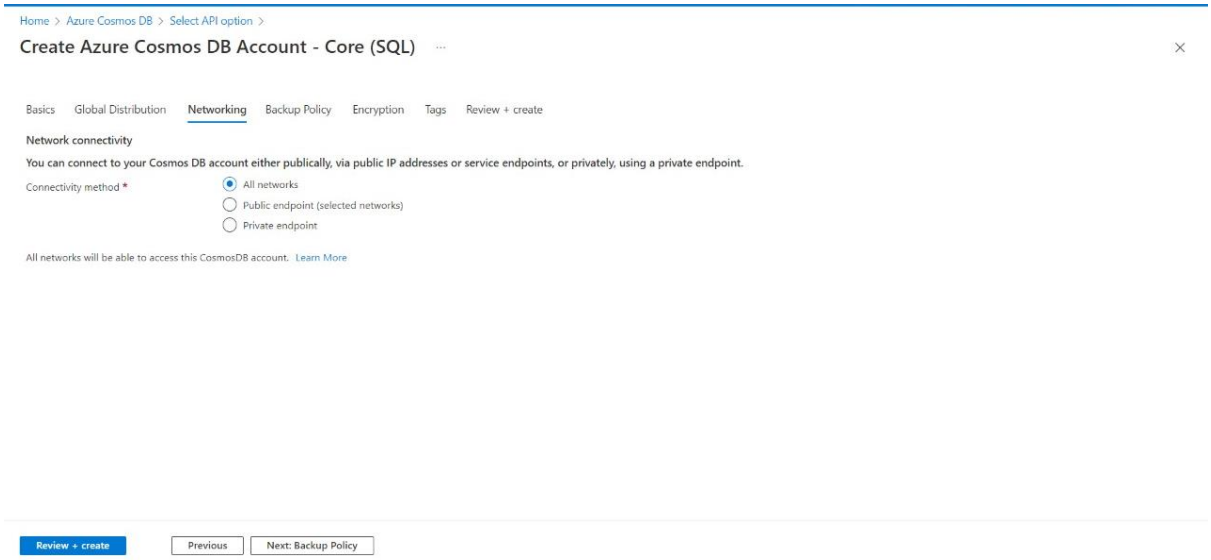


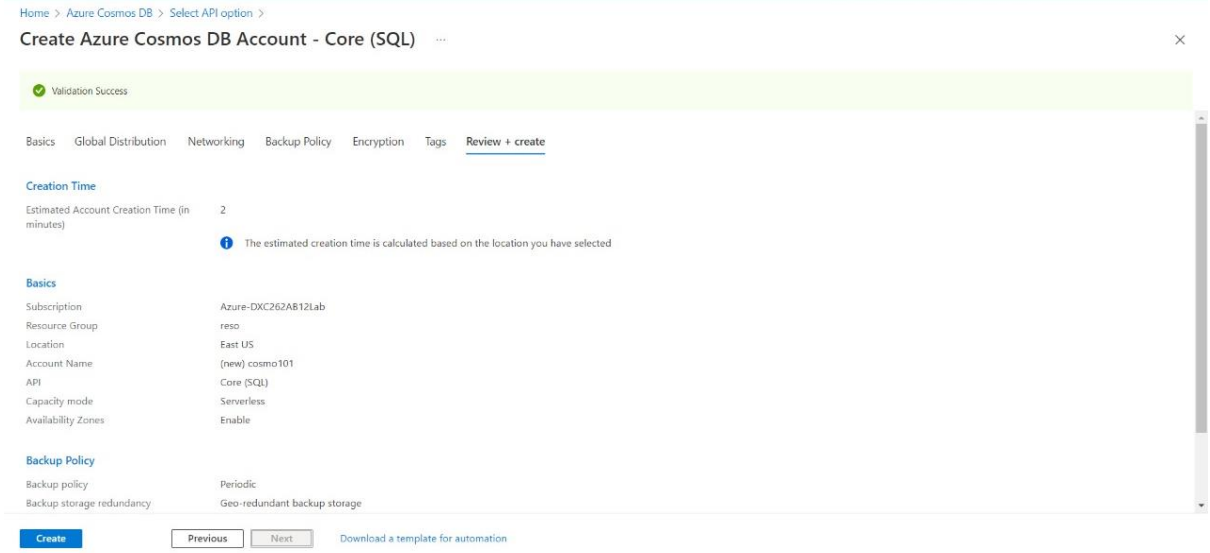
Sample JSON file to upload

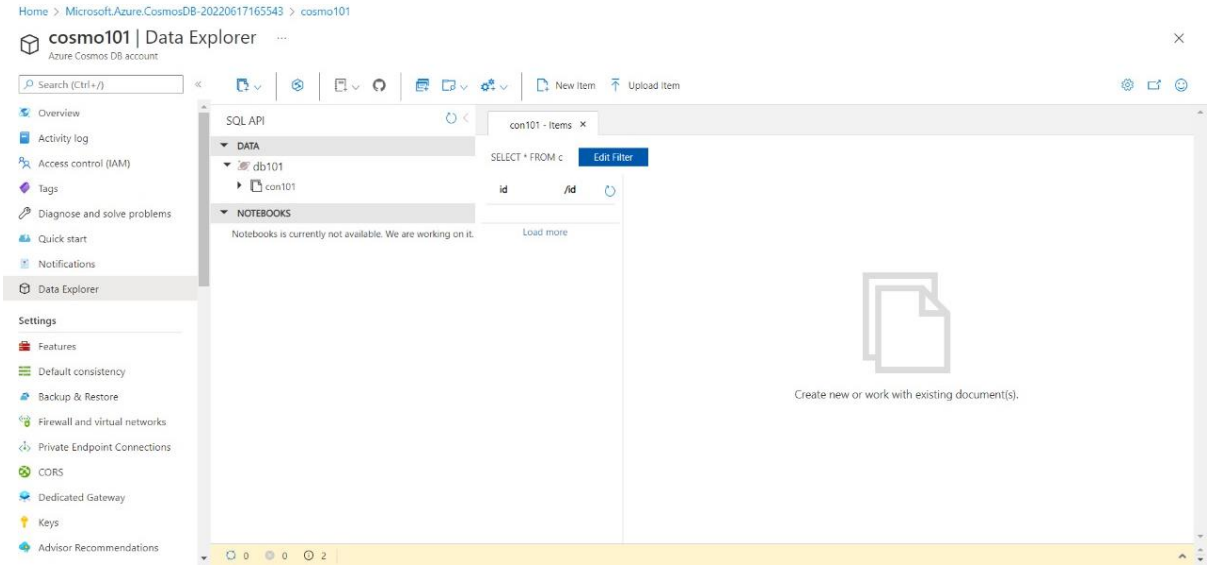

Home >
Azure Cosmos DB
Manipal Pro Learn (manipalazure.onmicrosoft.com)
Create
Restore
Manage view
Refresh
Export to CSV
Open query
Assign tags
Filter for any field...
Subscription == all
Resource group == all
Location == all
Add filter
No grouping
List view
Name
Status
Subscription
Write Region
Read Region
No Azure Cosmos DB accounts to display
Create a globally distributed, multi-model, fully managed database using API of your choice. Or try it for free, up to 20k RU/s, for 30 days with unlimited renewal.
Create Azure Cosmos DB account
Try now
Give feedback

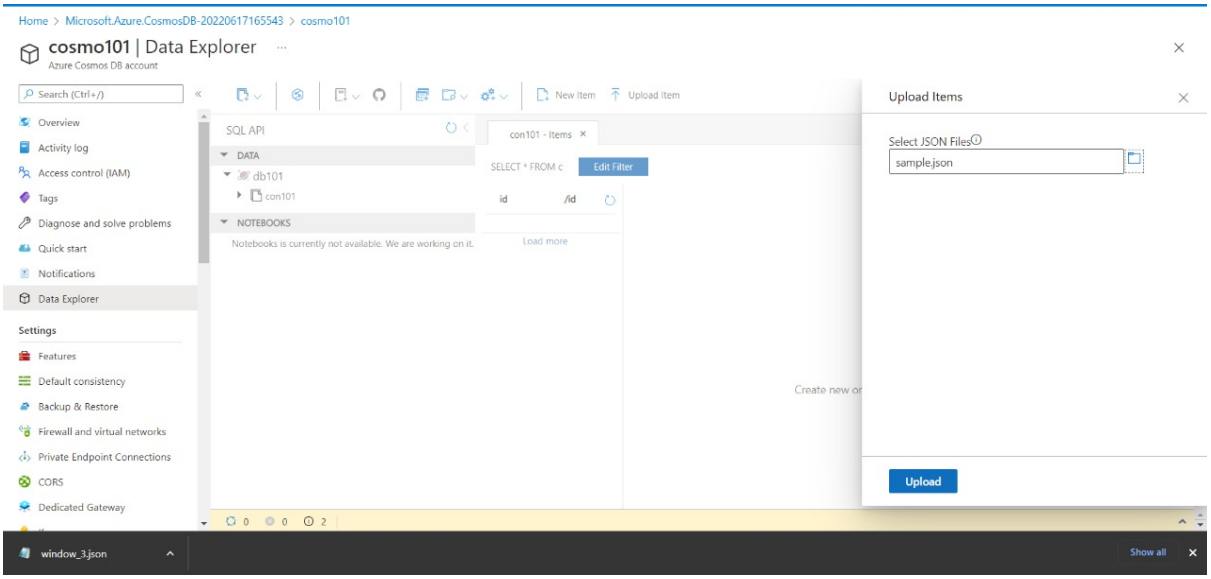

Home > Azure Cosmos DB >
Select API option
Which API best suits your workload?
Azure Cosmos DB is a fully managed NoSQL database service for building scalable, high performance applications. Learn more
To start, select the API to create a new account. The API selection cannot be changed after account creation.
Core (SQL) - Recommended
Azure Cosmos DB's core, or native API for working with documents. Supports fast, flexible development with familiar SQL query language and client libraries for .NET, JavaScript, Python, and Java.
Create
Learn more
Azure Cosmos DB API for MongoDB
Fully managed database service for apps written for MongoDB. Recommended if you have existing MongoDB workloads that you plan to migrate to Azure Cosmos DB.
Create
Learn more
Cassandra
Fully managed Cassandra database service for apps written for Apache Cassandra. Recommended if you have existing Cassandra workloads that you plan to migrate to Azure Cosmos DB.
Create
Learn more
Azure Table
Fully managed database service for apps written for Azure Table storage. Recommended if you have existing Azure Table storage workloads that you plan to migrate to Azure Cosmos DB, but do not want to re-write your application to use the SQL API.
Create
Learn more
Gremlin (Graph)
Fully managed graph database service using the Gremlin query language, based on Apache TinkerPop project. Recommended for new workloads that need to store relationships between data.
Create
Learn more

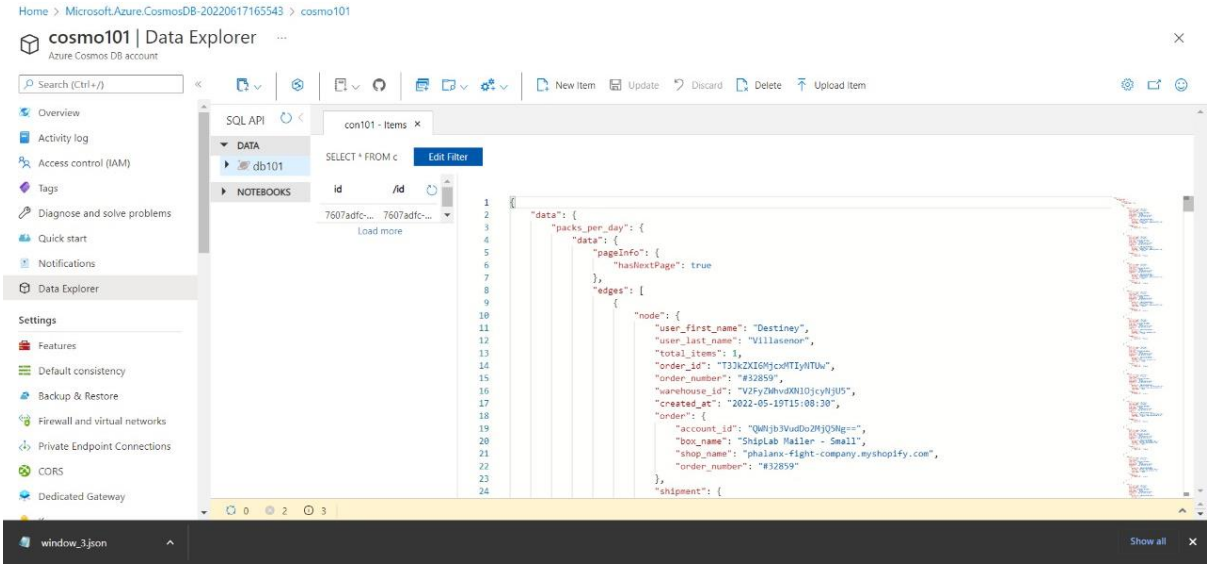

Home > Azure Cosmos DB > Select API option >
Create Azure Cosmos DB Account - Core (SQL)
Basics
Global Distribution
Networking
Backup Policy
Encryption
Tags
Review + create
Azure Cosmos DB is a fully managed NoSQL database service for building scalable, high performance applications. Try it for free, for 30 days with unlimited renewals. Go to production starting at $24/month per database, multiple containers included. Learn more
Project Details
Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.
Subscription *
Azure-DXC262AB12Lab
Resource Group *
reso
Create new
Instance Details
Account Name *
cosmo101
Location *
(US) East US
Capacity mode
Provisioned throughput
Serverless
Learn more about capacity mode
Review + create
Previous
Next: Global Distribution


Home > Azure Cosmos DB > Select API option >
Create Azure Cosmos DB Account - Core (SQL)
Basics
Global Distribution
Networking
Backup Policy
Encryption
Tags
Review + create
Network connectivity
You can connect to your Cosmos DB account either publically, via public IP addresses or service endpoints, or privately, using a private endpoint.
Connectivity method *
All networks
Public endpoint (selected networks)
Private endpoint
All networks will be able to access this CosmosDB account. Learn More
Review + create
Previous
Next: Backup Policy


Home > Azure Cosmos DB > Select API option >
Create Azure Cosmos DB Account - Core (SQL)
Validation Success
Basics
Global Distribution
Networking
Backup Policy
Encryption
Tags
Review + create
Creation Time
Estimated Account Creation Time (in minutes)
2
The estimated creation time is calculated based on the location you have selected
Basics
Subscription
Azure-DXC262AB12Lab
Resource Group
reso
Location
East US
Account Name
(new) cosmo101
API
Core (SQL)
Capacity mode
Serverless
Availability Zones
Enable
Backup Policy
Backup policy
Periodic
Backup storage redundancy
Geo-redundant backup storage
Create
Previous
Next
Download a template for automation


Home > Microsoft.Azure.CosmosDB-20220617165543 > cosmo101
cosmo101 | Data Explorer
Azure Cosmos DB account
Search (Ctrl+/)
New Item
Upload Item
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Quick start
Notifications
Data Explorer
Settings
Features
Default consistency
Backup & Restore
Firewall and virtual networks
Private Endpoint Connections
CORS
Dedicated Gateway
Keys
Advisor Recommendations
SQL API
DATA
db101
con101
NOTEBOOKS
Notebooks is currently not available. We are working on it.
con101 - Items
SELECT * FROM c
Edit Filter
id
/id
Load more
Create new or work with existing document(s).

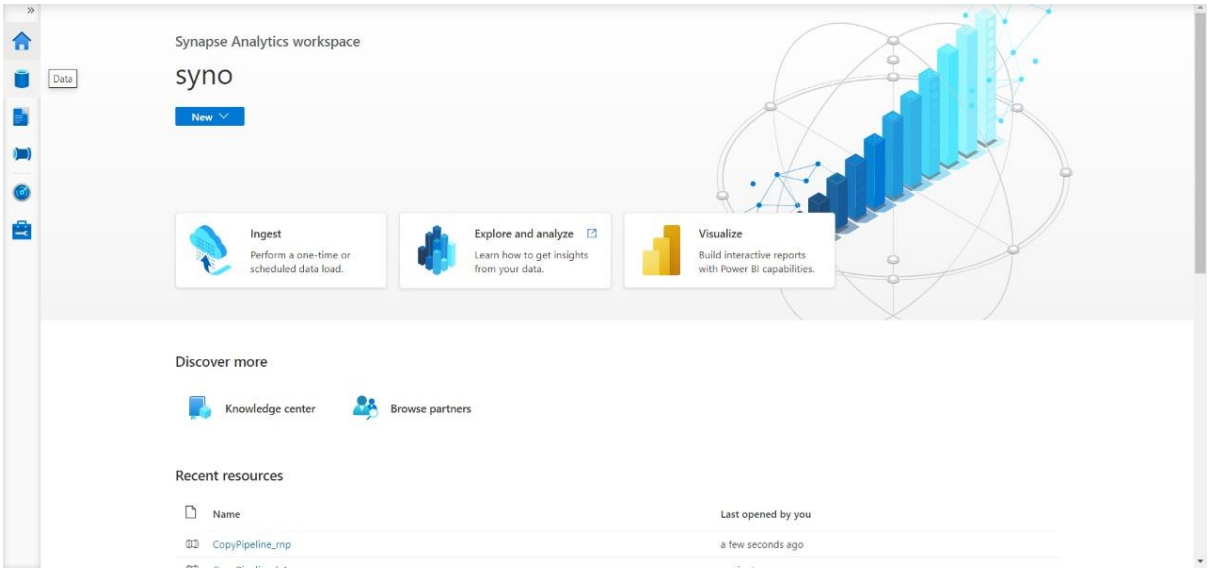

Home > Microsoft.Azure.CosmosDB-20220617165543 > cosmo101
cosmo101 | Data Explorer
Azure Cosmos DB account
Search (Ctrl+/)
New Item
Upload Item
Upload Items
Select JSON Files
sample.json
Upload
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Quick start
Notifications
Data Explorer
Settings
Features
Default consistency
Backup & Restore
Firewall and virtual networks
Private Endpoint Connections
CORS
Dedicated Gateway
SQL API
DATA
db101
con101
NOTEBOOKS
Notebooks is currently not available. We are working on it.
con101 - Items
SELECT * FROM c
Edit Filter
id
/id
Load more
window_3.json
Show all

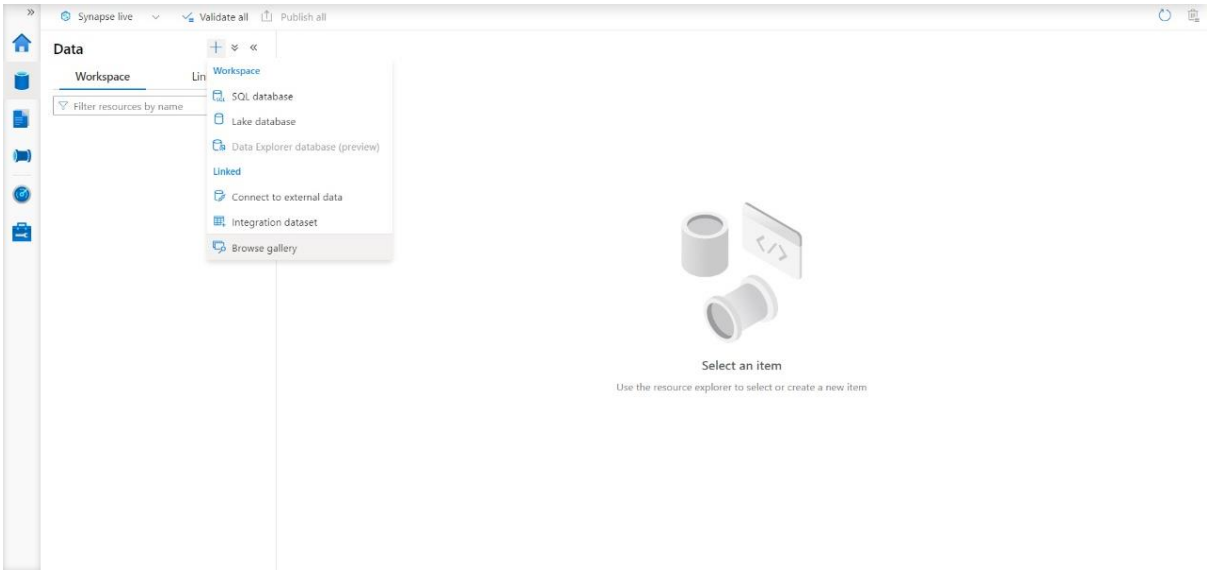


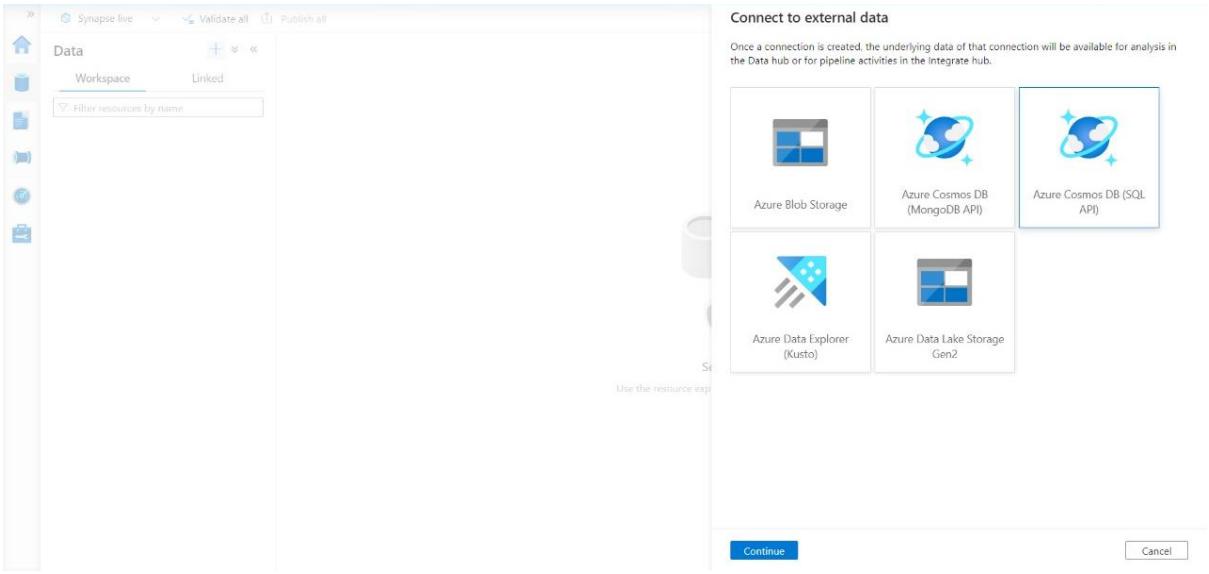
Now here we have successfully uploaded data into the Cosmos DB sql container.

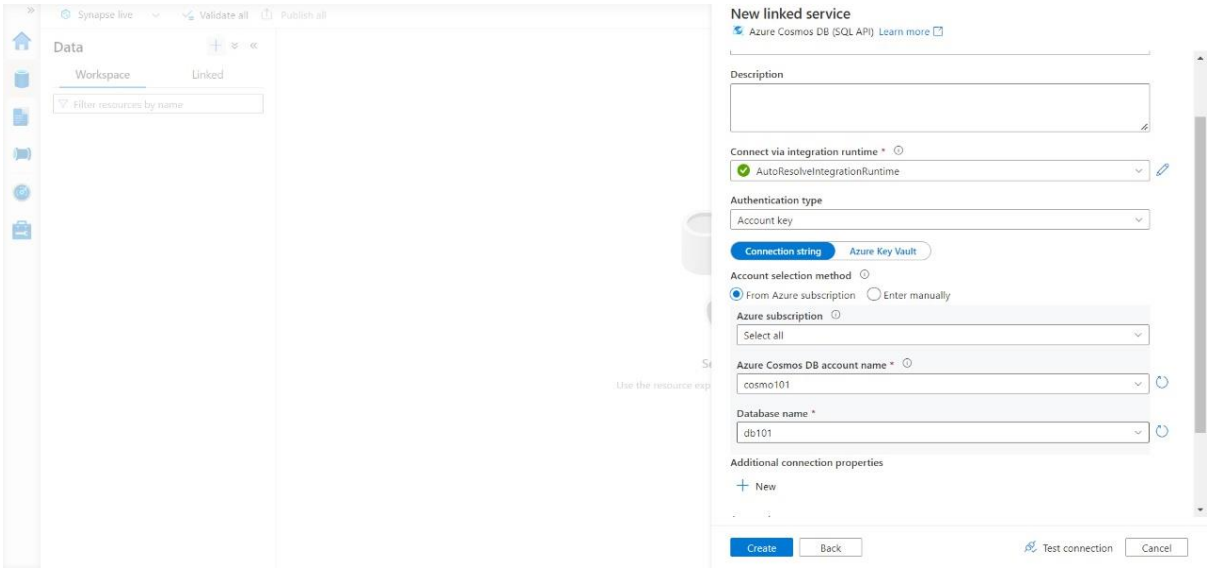
7.Connect COSMOS DB & Azure Synapse analytics & explain the steps with screenshots.

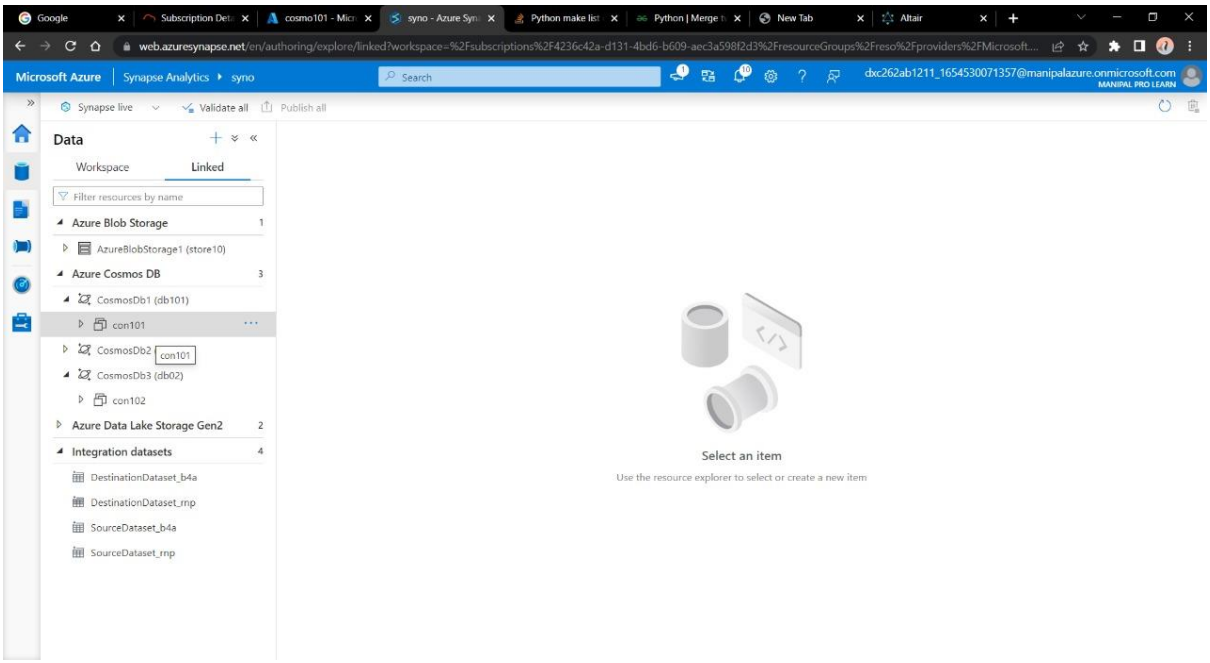
Azure Synapse can be connected to Cosmos DB using the following steps. For this question we are going to use cosmos DB account and synapse account from previous answers and will try to connect them.




Synapse live
Validate all
Publish all
Data
Workspace
Filter resources by name
Workspace
SQL database
Lake database
Data Explorer database (preview)
Linked
Connect to external data
Integration dataset
Browse gallery
Select an item
Use the resource explorer to select or create a new item


Synapse live
Validate all
Publish all
Data
Workspace
Linked
Filter resources by name
Connect to external data
Once a connection is created, the underlying data of that connection will be available for analysis in the Data hub or for pipeline activities in the Integrate hub.
Azure Blob Storage
Azure Cosmos DB (MongoDB API)
Azure Cosmos DB (SQL API)
Azure Data Explorer (Kusto)
Azure Data Lake Storage Gen2
Continue
Cancel

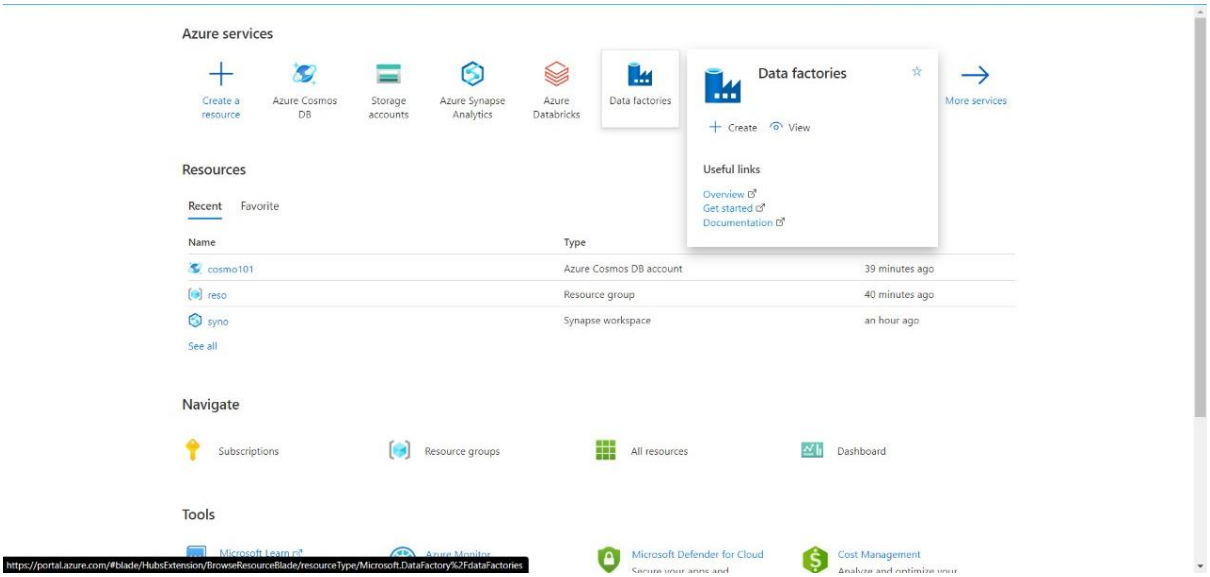

Synapse live
Validate all
Publish all
Data
Workspace
Linked
Filter resources by name
New linked service
Azure Cosmos DB (SQL API) Learn more
Description
Connect via integration runtime *
AutoResolveIntegrationRuntime
Authentication type
Account key
Connection string
Azure Key Vault
Account selection method
From Azure subscription
Enter manually
Azure subscription
Select all
Azure Cosmos DB account name *
cosmo101
Database name *
db101
Additional connection properties
New
Create
Back
Test connection
Cancel

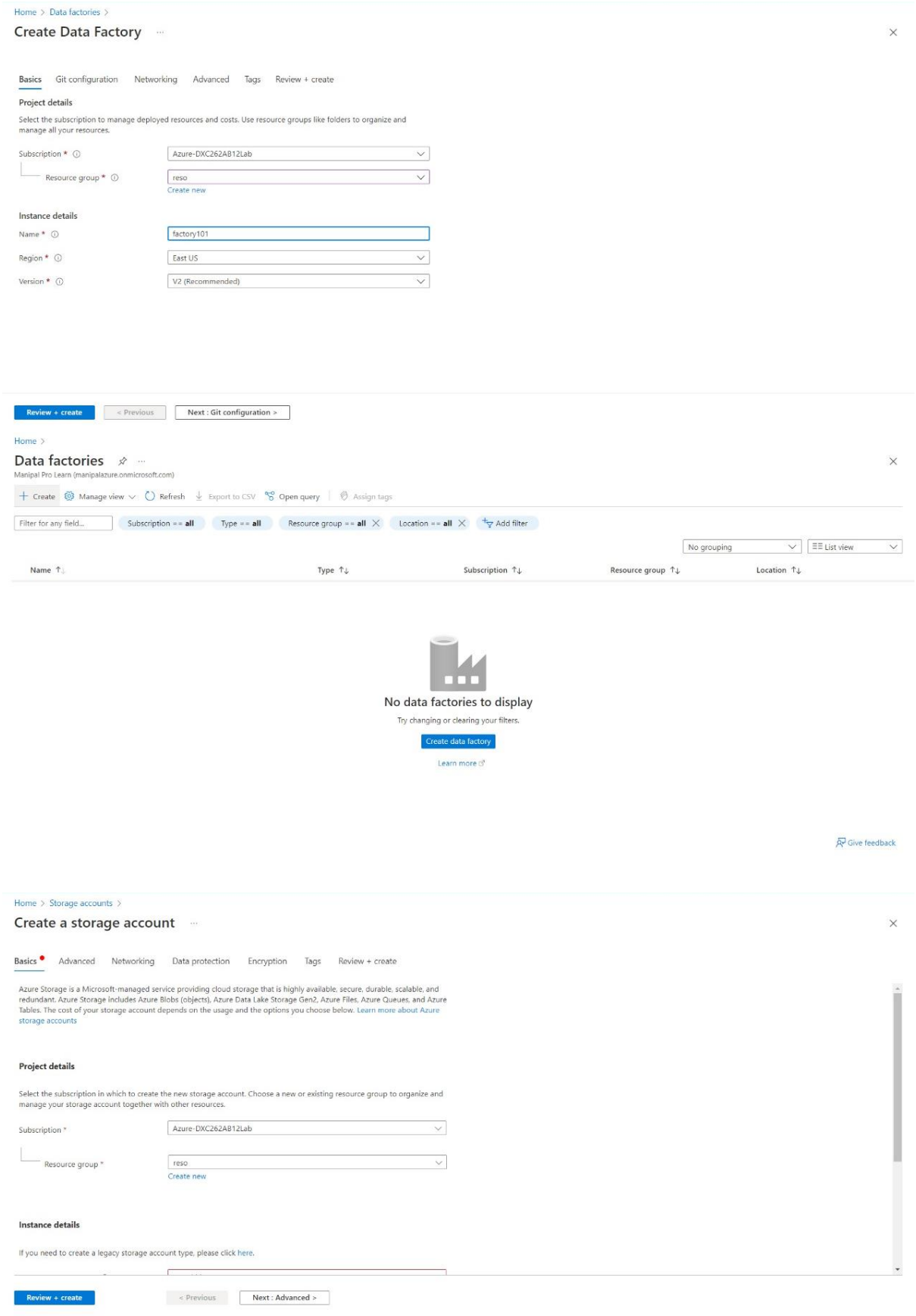


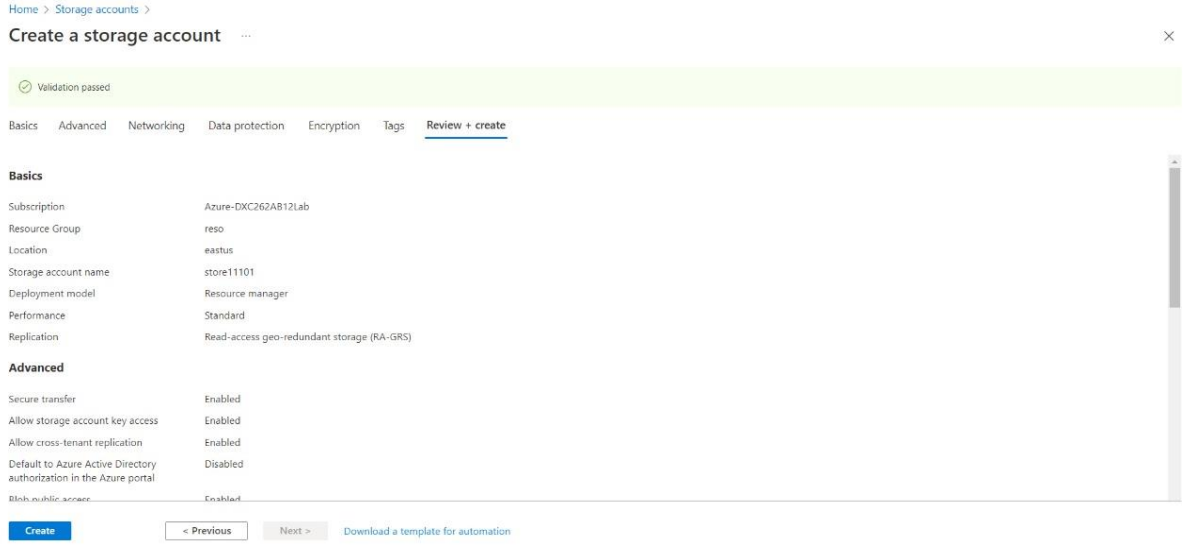
Here we have successfully loaded Cosmos DB sample json data into the Azure synapse lab.

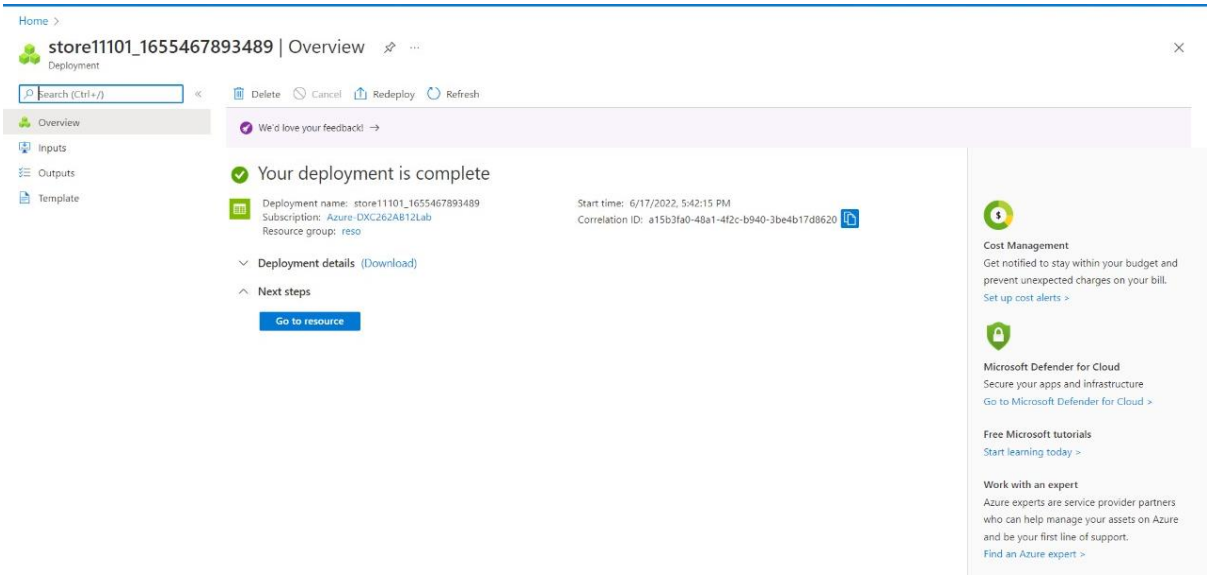
8.Create azure Data factory & azure Blob, connect Blob & ADF, import blob files into Data factory & explain the steps with screenshots

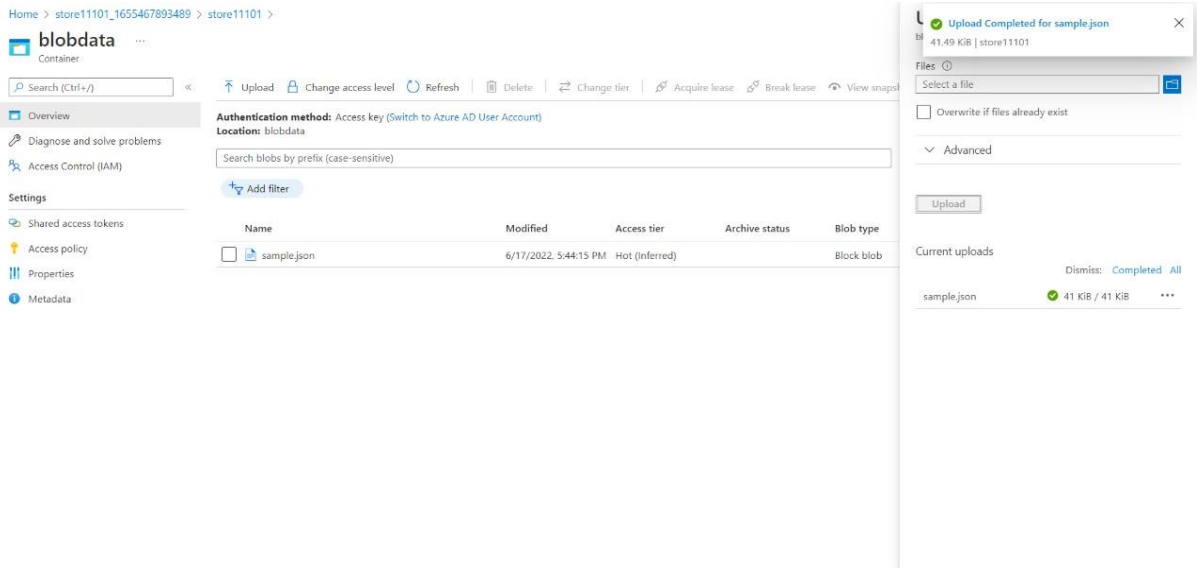
Azure Data Factory is a tool to integrate and to create data workflows. In order to connect blob storage with Azure data factory follow the steps below.

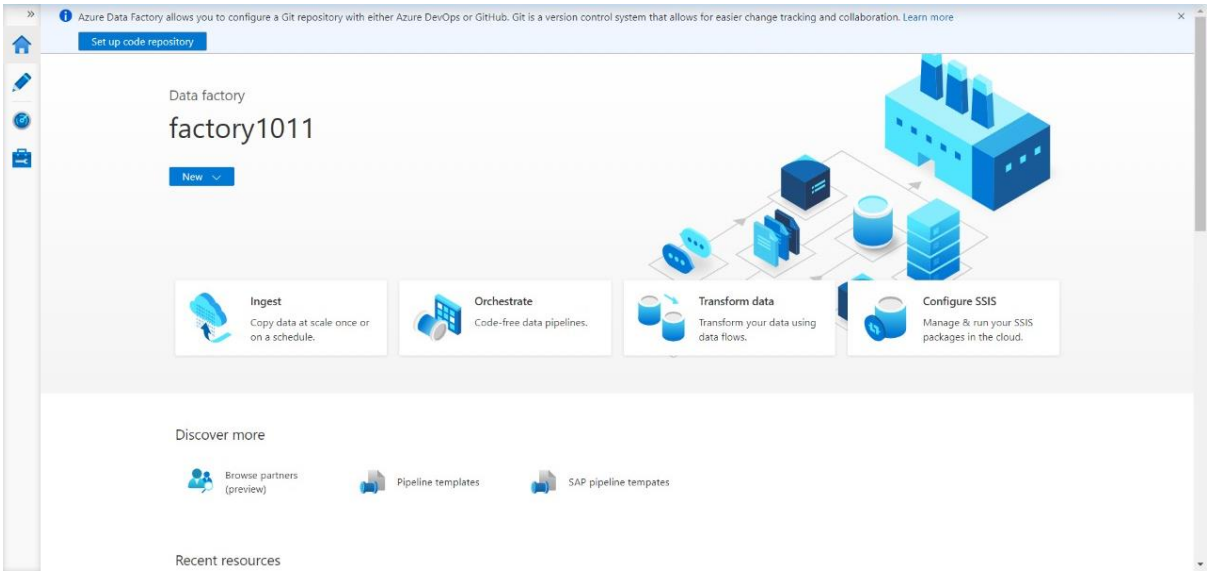



Home > Data factories >
Create Data Factory
Basics Git configuration Networking Advanced Tags Review + create
Project details
Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.
Subscription * Azure-DXC262AB12Lab
Resource group * reso
Create new
Instance details
Name * factory101
Region * East US
Version * V2 (Recommended)
Review + create
< Previous
Next : Git configuration >
Home >
Data factories
Manipal Pro Learn (manipalazure.onmicrosoft.com)
Create
Manage view
Refresh
Export to CSV
Open query
Assign tags
Filter for any field...
Subscription == all
Type == all
Resource group == all
Location == all
Add filter
No grouping
List view
Name
Type
Subscription
Resource group
Location
No data factories to display
Try changing or clearing your filters.
Create data factory
Learn more
Give feedback
Home > Storage accounts >
Create a storage account
Basics
Advanced
Networking
Data protection
Encryption
Tags
Review + create
Azure Storage is a Microsoft-managed service providing cloud storage that is highly available, secure, durable, scalable, and redundant. Azure Storage includes Azure Blobs (objects), Azure Data Lake Storage Gen2, Azure Files, Azure Queues, and Azure Tables. The cost of your storage account depends on the usage and the options you choose below. Learn more about Azure storage accounts
Project details
Select the subscription in which to create the new storage account. Choose a new or existing resource group to organize and manage your storage account together with other resources.
Subscription * Azure-DXC262AB12Lab
Resource group * reso
Create new
Instance details
If you need to create a legacy storage account type, please click here.
Review + create
< Previous
Next : Advanced >


Home > Storage accounts >
Create a storage account
Validation passed
Basics Advanced Networking Data protection Encryption Tags Review + create
Basics
Subscription Azure-DXC262AB12Lab
Resource Group reso
Location eastus
Storage account name store11101
Deployment model Resource manager
Performance Standard
Replication Read-access geo-redundant storage (RA-GRS)
Advanced
Secure transfer Enabled
Allow storage account key access Enabled
Allow cross-tenant replication Enabled
Default to Azure Active Directory authorization in the Azure portal Disabled
Create
< Previous
Next >
Download a template for automation


Home >
store11101_1655467893489 | Overview
Deployment
Search (Ctrl+/)
Overview
Inputs
Outputs
Template
Delete Cancel Redeploy Refresh
We'd love your feedback!
Your deployment is complete
Deployment name: store11101_1655467893489
Subscription: Azure-DXC262AB12Lab
Resource group: reso
Start time: 6/17/2022, 5:42:15 PM
Correlation ID: a15b3fa0-48a1-4f2c-b940-3be4b17d8620
Deployment details (Download)
Next steps
Go to resource
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 >


Home > store11101_1655467893489 > store11101 >
blobdata
Container
Search (Ctrl+/)
Overview
Diagnose and solve problems
Access Control (IAM)
Settings
Shared access tokens
Access policy
Properties
Metadata
Upload Change access level Refresh Delete Change tier Acquire lease Break lease View snapsh
Authentication method: Access key (Switch to Azure AD User Account)
Location: blobdata
Search blobs by prefix (case-sensitive)
Add filter
Name Modified Access tier Archive status Blob type
sample.json 6/17/2022, 5:44:15 PM Hot (Inferred) Block blob
Upload Completed for sample.json
41.49 KiB | store11101
Files
Select a file
Overwrite if files already exist
Advanced
Upload
Current uploads
Dismiss: Completed All
sample.json 41 KiB / 41 KiB


Azure Data Factory allows you to configure a Git repository with either Azure DevOps or GitHub. Git is a version control system that allows for easier change tracking and collaboration. Learn more
Set up code repository
Data factory
factory1011
New
Ingest
Copy data at scale once or on a schedule.
Orchestrate
Code-free data pipelines.
Transform data
Transform your data using data flows.
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Manage & run your SSIS packages in the cloud.
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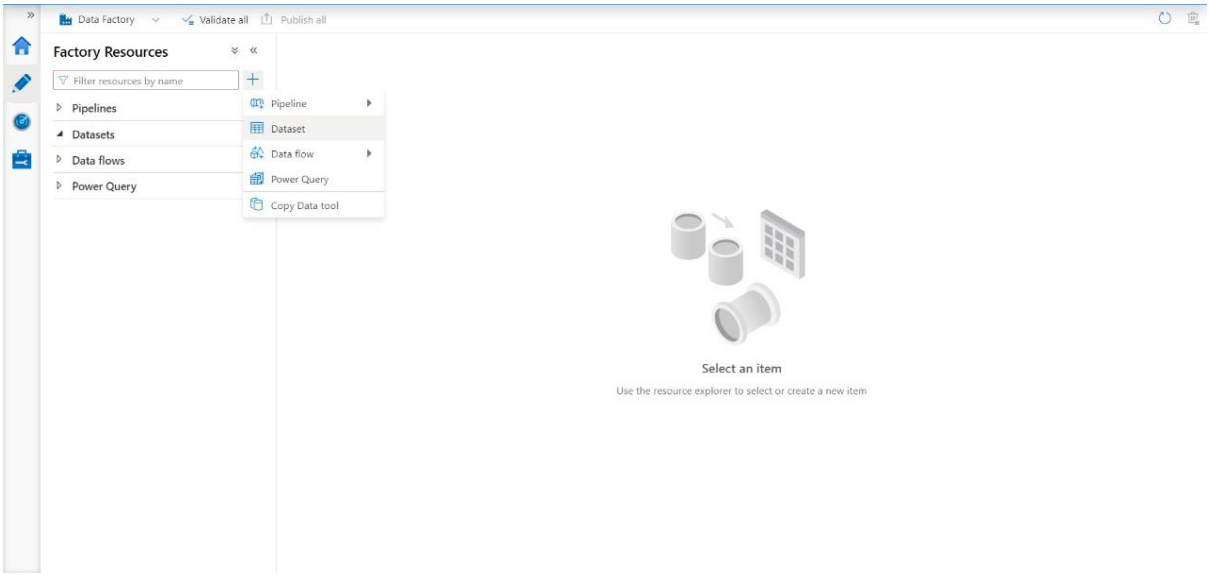
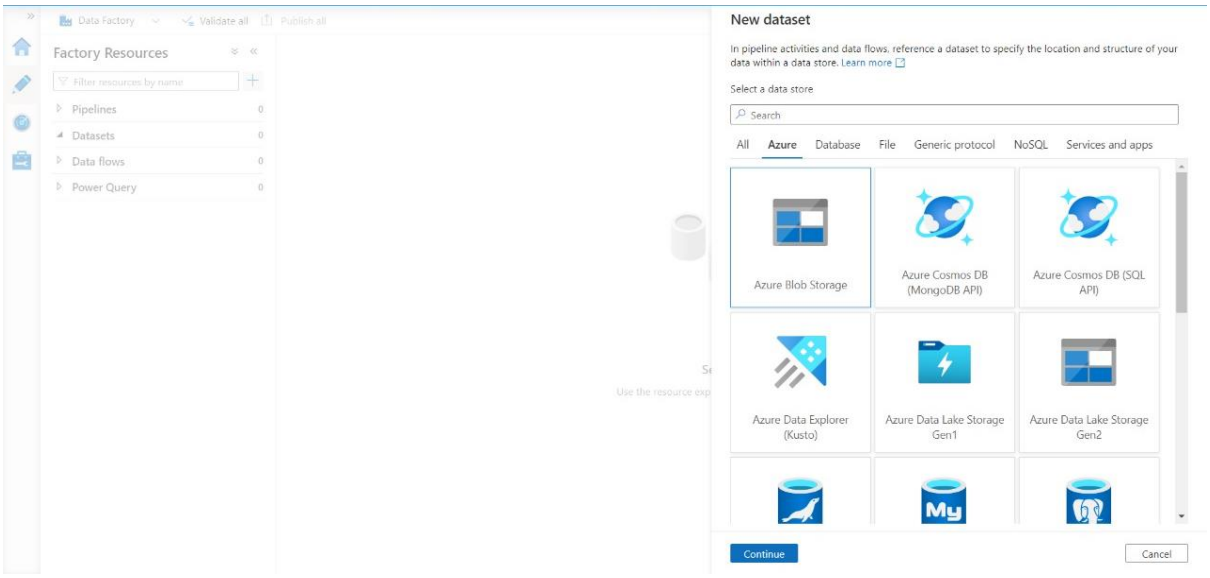
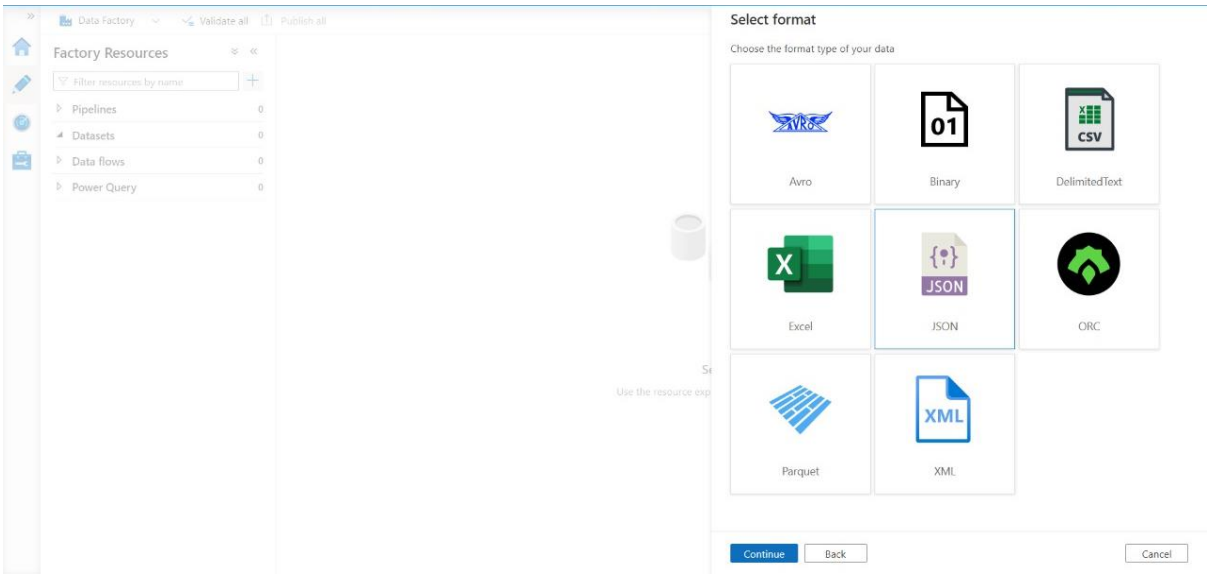
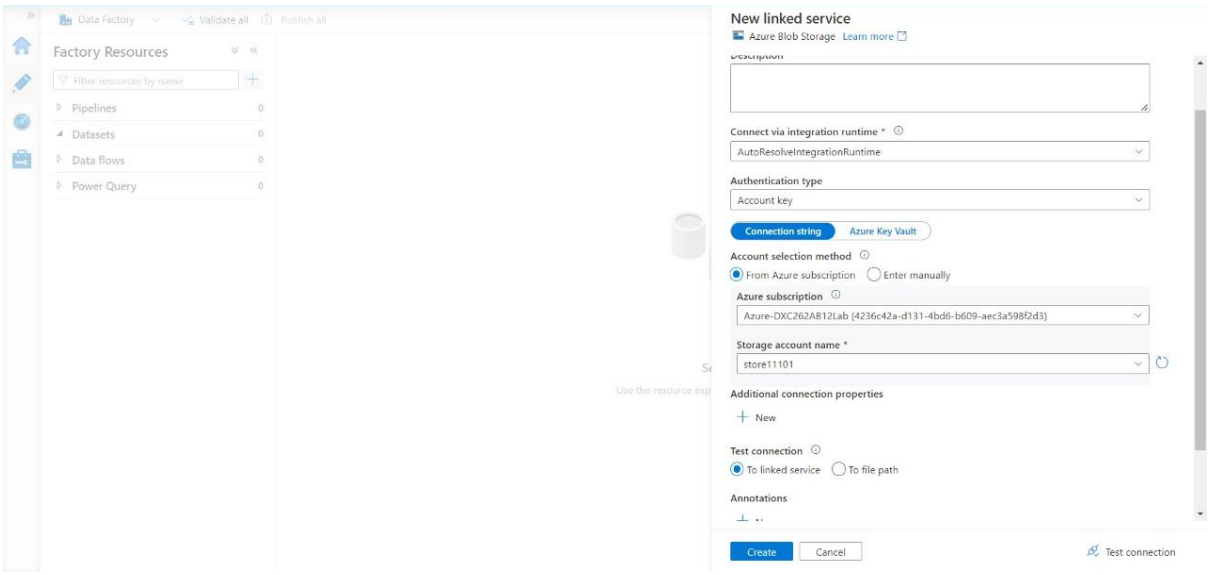
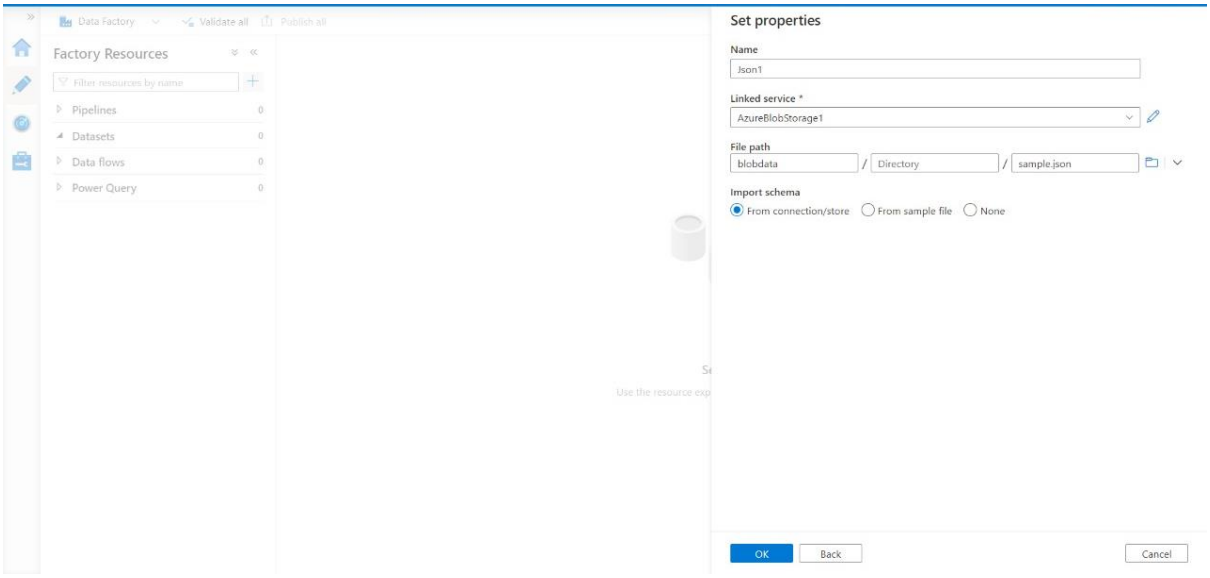
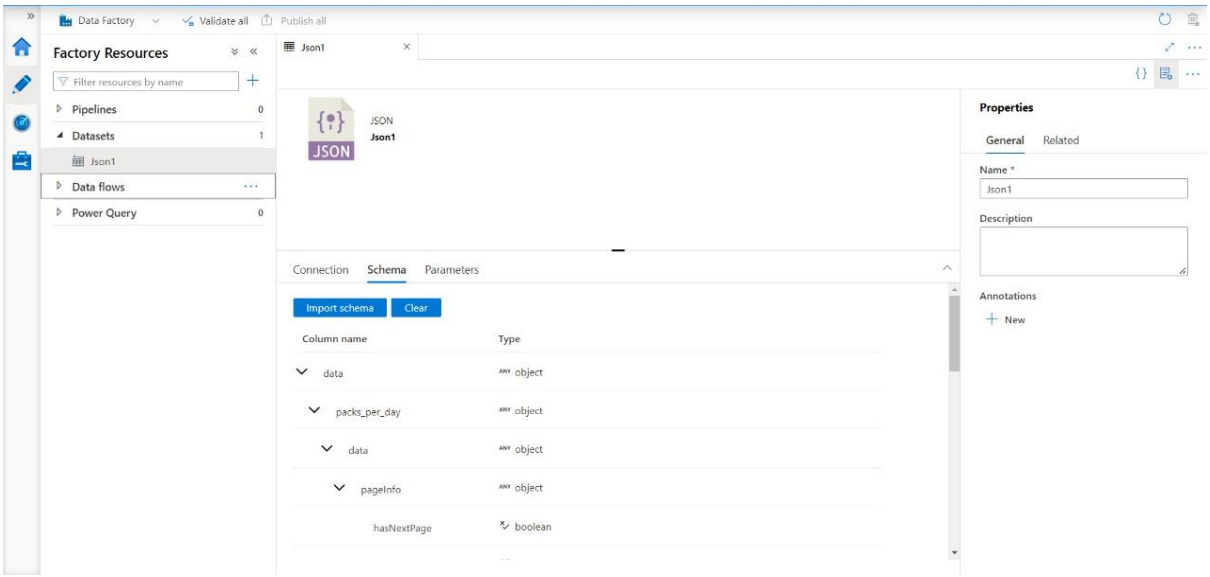

Data Factory
Validate all
Publish all
Factory Resources
Filter resources by name
Pipelines
Datasets
Data flows
Power Query
Pipeline
Dataset
Data flow
Power Query
Copy Data tool
Select an item
Use the resource explorer to select or create a new item


Data Factory
Validate all
Publish all
Factory Resources
Filter resources by name
Pipelines
Datasets
Data flows
Power Query
New dataset
In pipeline activities and data flows, reference a dataset to specify the location and structure of your data within a data store. Learn more
Select a data store
Search
All
Azure
Database
File
Generic protocol
NoSQL
Services and apps
Azure Blob Storage
Azure Cosmos DB (MongoDB API)
Azure Cosmos DB (SQL API)
Azure Data Explorer (Kusto)
Azure Data Lake Storage Gen1
Azure Data Lake Storage Gen2
Continue
Cancel


Data Factory
Validate all
Publish all
Factory Resources
Filter resources by name
Pipelines
Datasets
Data flows
Power Query
Select format
Choose the format type of your data
Avro
Binary
DelimitedText
Excel
JSON
ORC
Parquet
XML
Continue
Back
Cancel


Data Factory
Validate all
Publish all
Factory Resources
Filter resources by name
Pipelines
Datasets
Data flows
Power Query
New linked service
Azure Blob Storage
Learn more
Connect via integration runtime *
AutoResolveIntegrationRuntime
Authentication type
Account key
Connection string
Azure Key Vault
Account selection method
From Azure subscription
Enter manually
Azure subscription
Azure-DXC262AB12Lab (4236c42a-d131-4bd6-b609-aec3a598f2d3)
Storage account name *
store11101
Additional connection properties
New
Test connection
To linked service
To file path
Annotations
Create
Cancel
Test connection





We have successfully created and linked a Azure data Factory and blob storage & imported the data into the Azure data factory.