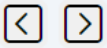
Assignment 2: Azure SQL DB Creation | Submit Assignment

Create a new Azure SQL DB with the name 'Mission100+Yourname+DOB+DB' inside the resource group 'azurelib'.

Keep the Sample Db included while creating this Db.
You need to create a new DB server as well while creating this Database.

Remark: Ensure you are choosing the Basic tier while making the DB, to have low cost. Also allow azure services to is marked as enabled under the network firewall setting.

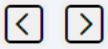
Assignment 2: Azure SQL DB Creation



Assignment 3: Azure Data Factory Account Creation | Submit Assignment

Create your first ADF account where adf account name : mission100+yourname+yourdob and put it inside the resource group name azurelib.

Assignment 3: Azure Data Factory Account Creation



Assignment 4: ADF Pipeline 1 | Submit Assignment

Pipeline 1:

Go to the ADF studio and create your first pipeline name: Copy_ProductTable_To_CSV.

In the newly created SQL DB there is one built in SalesLt.Product table.

Copy the Product table data to CSV file in 'landing/CSV' folder in ADLS using the ADF.

Pipeline 2:

Create another pipeline name: Copy_Customer_To_JSON In the newly created SQL DB there is one built in SalesLt.Customer table.

Copy the Customer table data to JSON file in 'landing/JSON' folder in ADLS using the ADF.

Hint: During the dataset creation step instead of choosing the file type CSV choose JSON

Pipeline 3:

Pipeline 3:

Create another pipeline name: Copy_Customer_JSON_To_Folder. In the last pipeline 1, you have created the Customer file in ADLS 'landing/CSV' folder. Now this time try to move this file to another ADLS folder 'landing/CSV2' using the ADF pipeline.

Hint: This time our source is ADLS 'landing/CSV' folder and destination is also of ADLS type but different folder 'landing/CSV2' (You can create one more dataset)

Tough Question:

Pipeline 4:

Create another pipeline name: Copy_Customer_To_CSV_Pipe In the newly created SQL DB there is one built in SalesLt.Customer table.

Copy the Customer table data to CSV file in 'landing/CSV_Pipe' folder in ADLS using the ADF. But ensure that the delimiter of this file should be (|) instead of (,)

Hint: After you create your dataset for CSV, open the dataset there you should see the option to change the delimiter.

Easy Questions:

1. Create a pipeline name 'Without_Foreach_Example' to copy the Customer & Customer address table data into ADLS without using foreach activity.

2. Create a pipeline name 'Foreach_Example' to copy the Customer & Customer address table data into ADLS using the one copy activity.

Tricky Questions:

3. Create a pipeline name 'Foreach_Example_2' which solves the following business use case.

Customer data is very important for our business. Hence whenever we have more than 100 records in the customer table,

we copy the customer data to another table customer_copy within the sql db.

However whenever we do this copy, we first truncate the table 'customer_copy' and then copy the data from 'customer' table

Hint : Use ADF to solve this problem.

1. Create a pipeline name 'Ingestion_Customer_SQLDB_ADLS' which will copy all the records from Customer table to ADLS account as CSV File.

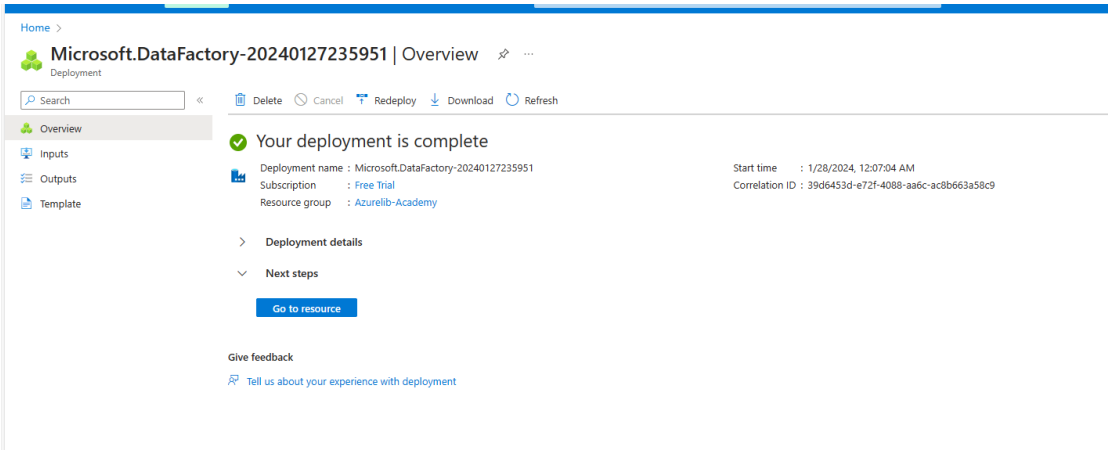
2. Create a pipeline name 'Ingestion_Customer_SQLDB_ADLS_Folder' which will copy all the records from Address table to ADLS account inside the 'Address' folder as CSV File.

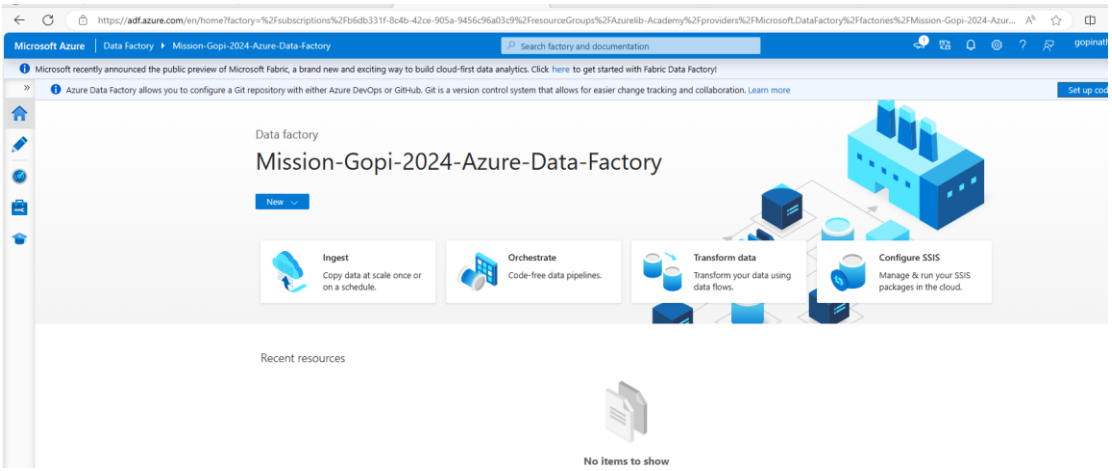
3. Create a Pipeline name 'Ingestion_Customer_JOIN_ADLS' which will copy the all the customer names along with their address into the csv. (Hint Join Customer+ Customer Address table)

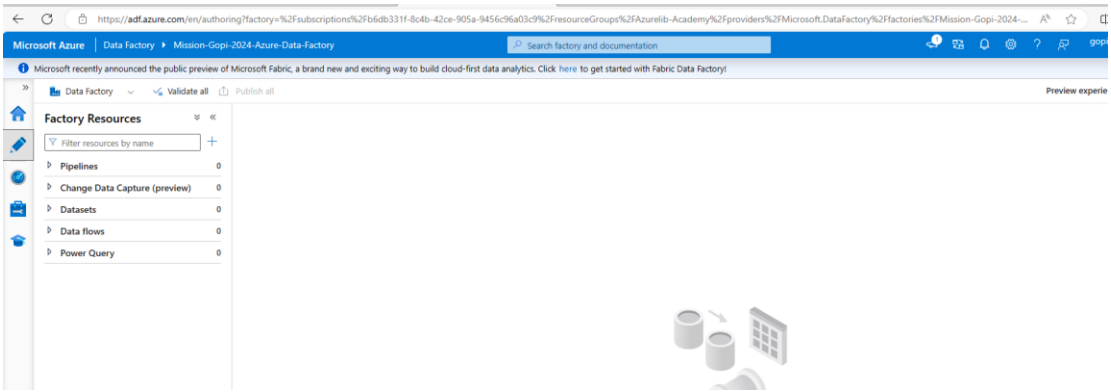
4. Create a pipeline name 'Ingestion_Product_To_JSON' which will copy all the product records as JSON only if total number of records >10.

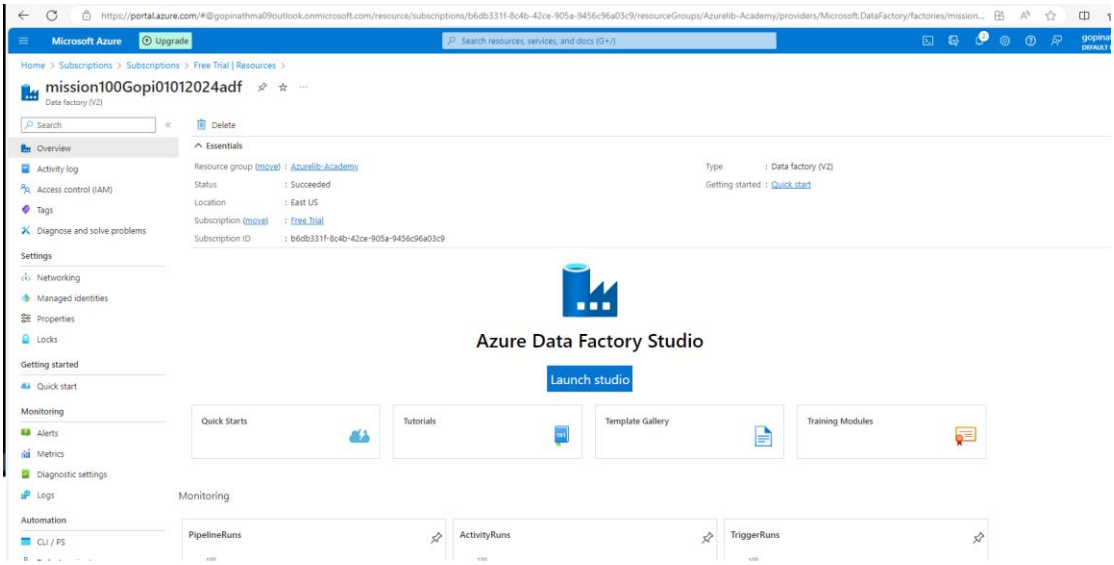
Tough Question

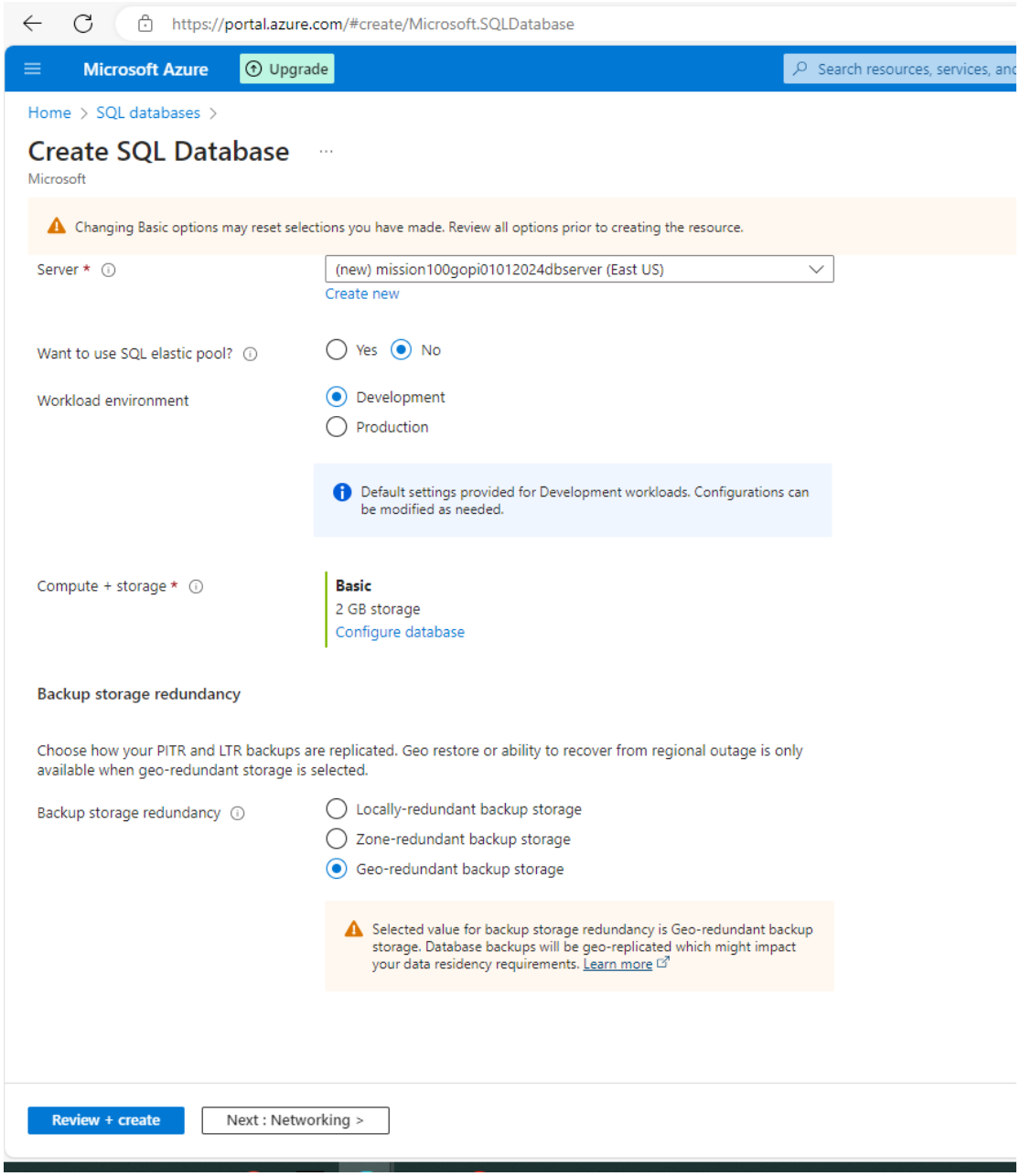
5. Create a pipeline name 'Ingestion_Product_Addres_To_JSON' which will copy all the product records as JSON only if total number of records >10. After that check total record count in address table if they are greater than 100 then copy the adress table data as CSV in ADLS.

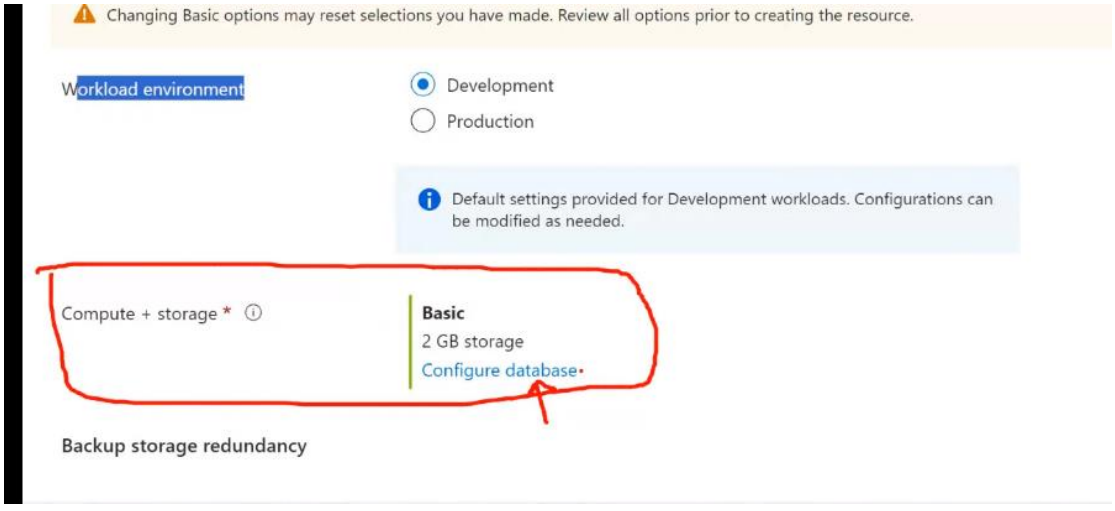

Home
Microsoft.DataFactory-20240127235951 | Overview
Deployment
Search
Overview
Inputs
Outputs
Template
Delete
Cancel
Redeploy
Download
Refresh
Your deployment is complete
Deployment name : Microsoft.DataFactory-20240127235951
Subscription : Free Trial
Resource group : Azurelib-Academy
Start time : 1/28/2024, 12:07:04 AM
Correlation ID : 39d6453d-e72f-4088-aa6c-ac8b663a58c9
Deployment details
Next steps
Go to resource
Give feedback
Tell us about your experience with deployment

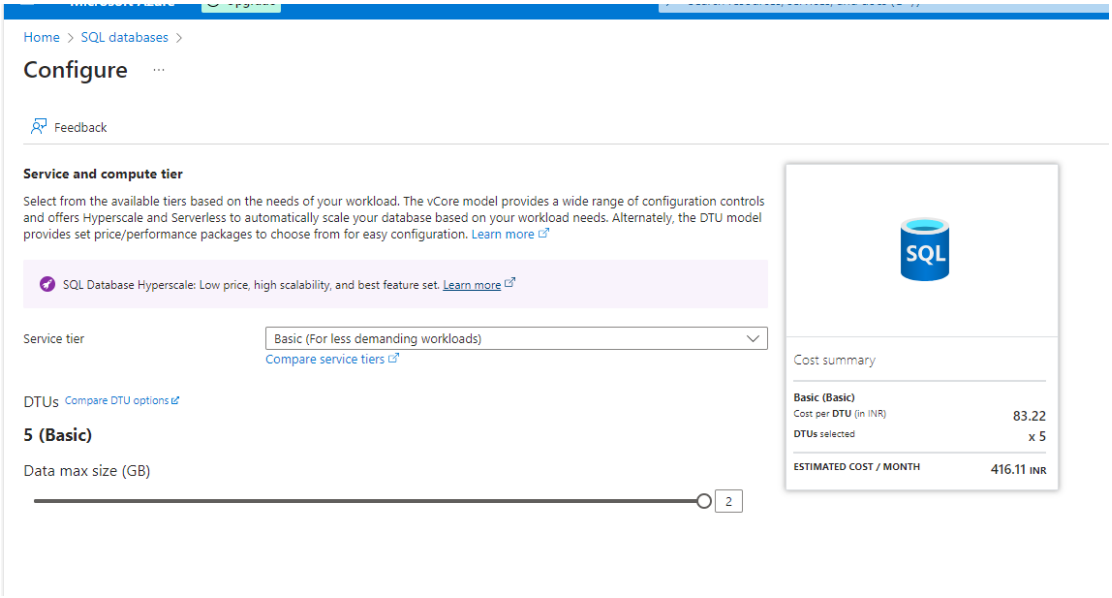

Microsoft Azure
Data Factory
Mission-Gopi-2024-Azure-Data-Factory
Search factory and documentation
Data factory
Mission-Gopi-2024-Azure-Data-Factory
New
Ingest
Copy data at scale once or on a schedule.
Orchestrate
Code-free data pipelines.
Transform data
Transform your data using data flows.
Configure SSIS
Manage & run your SSIS packages in the cloud.
Recent resources
No items to show

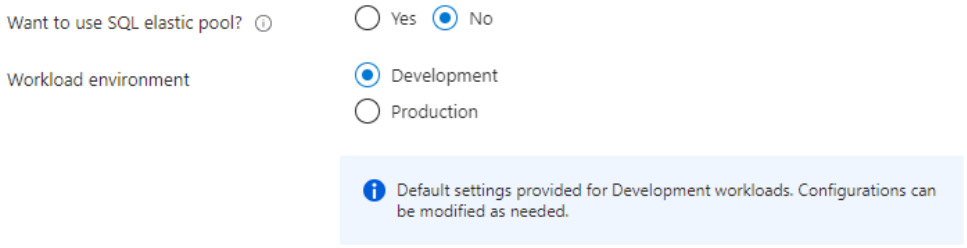

Microsoft Azure
Data Factory
Mission-Gopi-2024-Azure-Data-Factory
Search factory and documentation
Data Factory
Validate all
Publish all
Factory Resources
Filter resources by name
Pipelines
Change Data Capture (preview)
Datasets
Data flows
Power Query

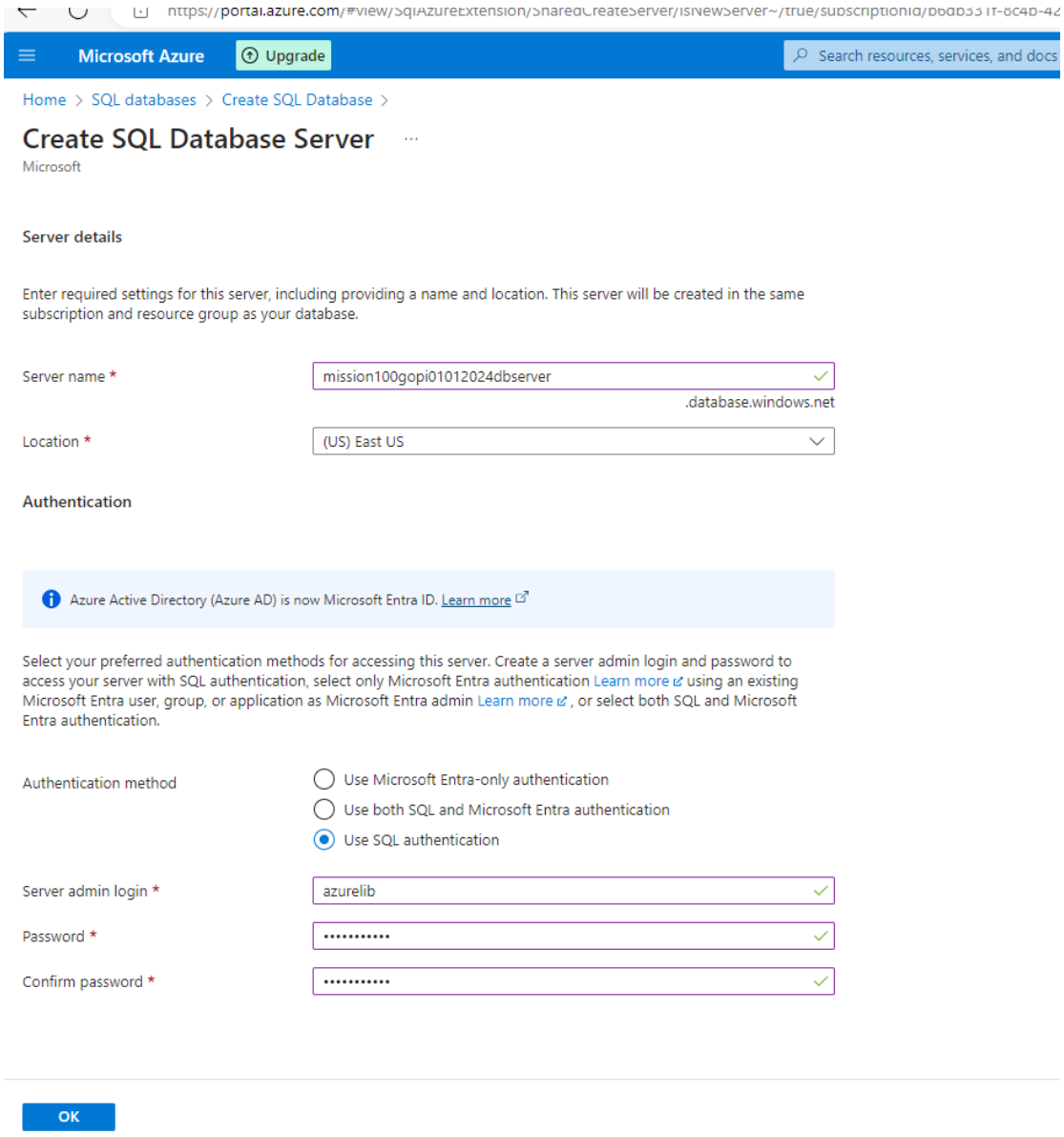

Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Home > Subscriptions > Subscriptions > Free Trial | Resources >
mission100Gopi01012024adf
Data factory (V2)
Search
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Networking
Managed identities
Properties
Locks
Getting started
Quick start
Monitoring
Alerts
Metrics
Diagnostic settings
Logs
Automation
CLI / PS
Delete
Essentials
Resource group (move) : Azurelib-Academy
Status : Succeeded
Location : East US
Subscription (move) : Free Trial
Subscription ID : b6db331f-8c4b-42ce-905a-9456c96a03c9
Type : Data factory (V2)
Getting started : Quick start
Azure Data Factory Studio
Launch studio
Quick Starts
Tutorials
Template Gallery
Training Modules
Monitoring
PipelineRuns
ActivityRuns
TriggerRuns


https://portal.azure.com/#create/Microsoft.SQLDatabase
Microsoft Azure
Upgrade
Search resources, services, and
Home > SQL databases >
Create SQL Database
Microsoft
Changing Basic options may reset selections you have made. Review all options prior to creating the resource.
Server *
(new) mission100gopi01012024dbserver (East US)
Create new
Want to use SQL elastic pool?
Yes
No
Workload environment
Development
Production
Default settings provided for Development workloads. Configurations can be modified as needed.
Compute + storage *
Basic
2 GB storage
Configure database
Backup storage redundancy
Choose how your PITR and LTR backups are replicated. Geo restore or ability to recover from regional outage is only available when geo-redundant storage is selected.
Backup storage redundancy
Locally-redundant backup storage
Zone-redundant backup storage
Geo-redundant backup storage
Selected value for backup storage redundancy is Geo-redundant backup storage. Database backups will be geo-replicated which might impact your data residency requirements. Learn more
Review + create
Next : Networking >


Changing Basic options may reset selections you have made. Review all options prior to creating the resource.
Workload environment
Development
Production
Default settings provided for Development workloads. Configurations can be modified as needed.
Compute + storage *
Basic
2 GB storage
Configure database
Backup storage redundancy


Home > SQL databases >
Configure
Feedback
Service and compute tier
Select from the available tiers based on the needs of your workload. The vCore model provides a wide range of configuration controls and offers Hyperscale and Serverless to automatically scale your database based on your workload needs. Alternately, the DTU model provides set price/performance packages to choose from for easy configuration. Learn more
SQL Database Hyperscale: Low price, high scalability, and best feature set. Learn more
Service tier
Basic (For less demanding workloads)
Compare service tiers
DTUs Compare DTU options
5 (Basic)
Data max size (GB)
2
SQL
Cost summary
Basic (Basic)
Cost per DTU (in INR) 83.22
DTUs selected x 5
ESTIMATED COST / MONTH 416.11 INR


Want to use SQL elastic pool?
Yes
No
Workload environment
Development
Production
Default settings provided for Development workloads. Configurations can be modified as needed.


https://portal.azure.com/#view/SqlAzureExtension/SharedCreateServer/isNewServer~/true/subscriptionId/b6db33
Microsoft Azure
Upgrade
Search resources, services, and docs
Home > SQL databases > Create SQL Database >
Create SQL Database Server
Microsoft
Server details
Enter required settings for this server, including providing a name and location. This server will be created in the same subscription and resource group as your database.
Server name *
mission100gopi01012024dbserver
.database.windows.net
Location *
(US) East US
Authentication
Azure Active Directory (Azure AD) is now Microsoft Entra ID. Learn more
Select your preferred authentication methods for accessing this server. Create a server admin login and password to access your server with SQL authentication, select only Microsoft Entra authentication Learn more using an existing Microsoft Entra user, group, or application as Microsoft Entra admin Learn more, or select both SQL and Microsoft Entra authentication.
Authentication method
Use Microsoft Entra-only authentication
Use both SQL and Microsoft Entra authentication
Use SQL authentication
Server admin login *
azurelib
Password *
Confirm password *
OK

Home > SQL databases >

Create SQL Database

Microsoft

Basics | Networking | Security | Additional settings | Tags | Review + create

Configure network access and connectivity for your server. The configuration selected below will apply to the selected server 'mission100gopi01012024dbserver' and all databases it manages. Learn more

Network connectivity

Choose an option for configuring connectivity to your server via public endpoint or private endpoint. Choosing no access creates with defaults and you can configure connection method after server creation. Learn more

Connectivity method *

- ○ No access
- ◉ Public endpoint
- ○ Private endpoint

Firewall rules

Setting 'Allow Azure services and resources to access this server' to Yes allows communications from all resources inside the Azure boundary, that may or may not be part of your subscription. Learn more
Setting 'Add current client IP address' to Yes will add an entry for your client IP address to the server firewall.

Allow Azure services and resources to access this server * — No | Yes

Add current client IP address * — No | Yes

Connection policy

Configure how clients communicate with your SQL database server. Learn more

Connection policy

- ◉ Default - Uses Redirect policy for all client connections originating inside of Azure (except Private Endpoint connections) and Proxy for all client connections originating outside Azure
- ○ Proxy - All connections are proxied via the Azure SQL Database gateways
- ○ Redirect - Clients establish connections directly to the node hosting the database

Cost summary

Basic (Basic)
Cost per DTU (in INR) 76.93
DTUs selected x 5
ESTIMATED COST / MONTH 384.63 INR

Review + create | < Previous | Next : Security >

Home > SQL databases >

Create SQL Database

Microsoft

Basics | Networking | Security | Additional settings | Tags | Review + create

Customize additional configuration parameters including collation & sample data.

Data source

Start with a blank database, restore from a backup or select sample data to populate your new database.

Use existing data * — None | Backup | Sample

AdventureWorksLT will be created as the sample database.

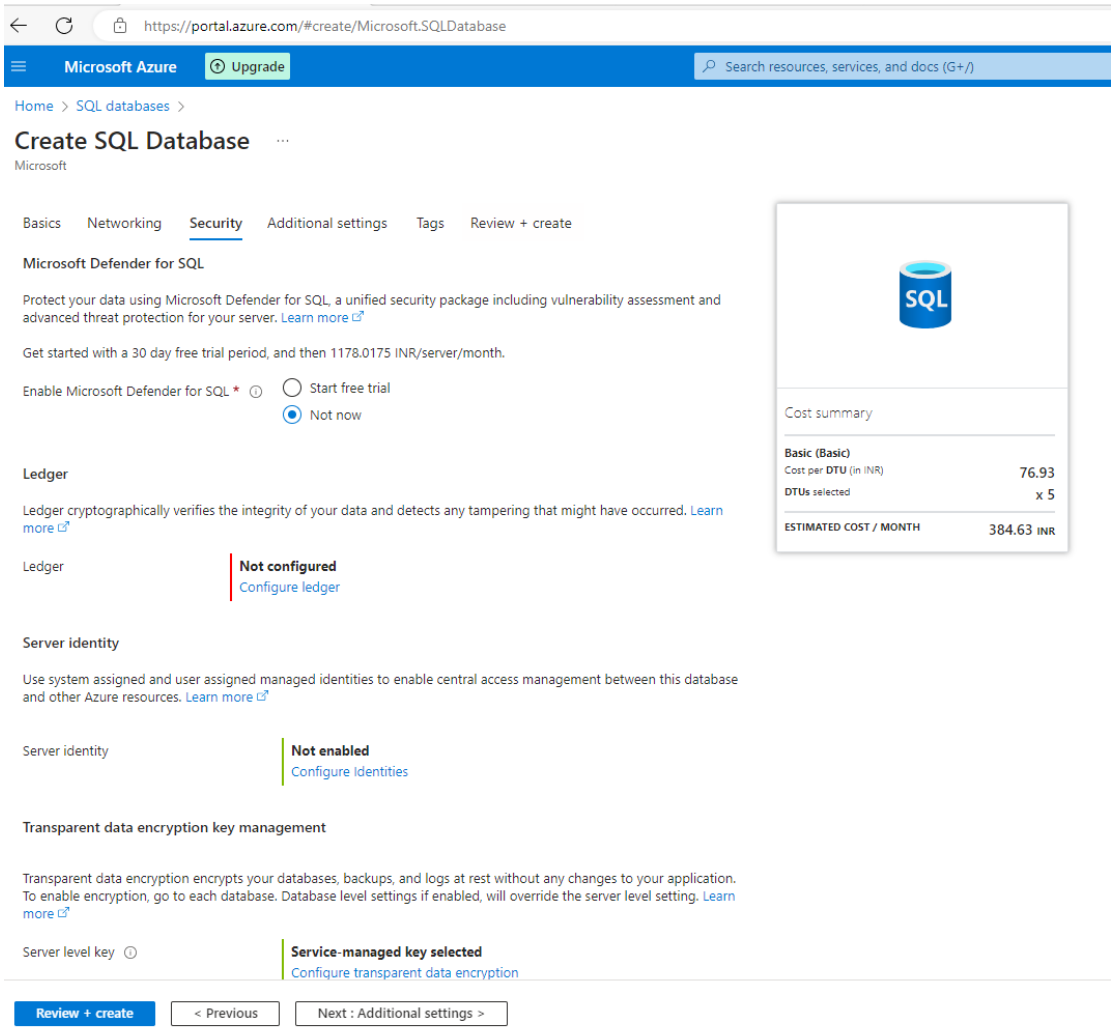
Database collation

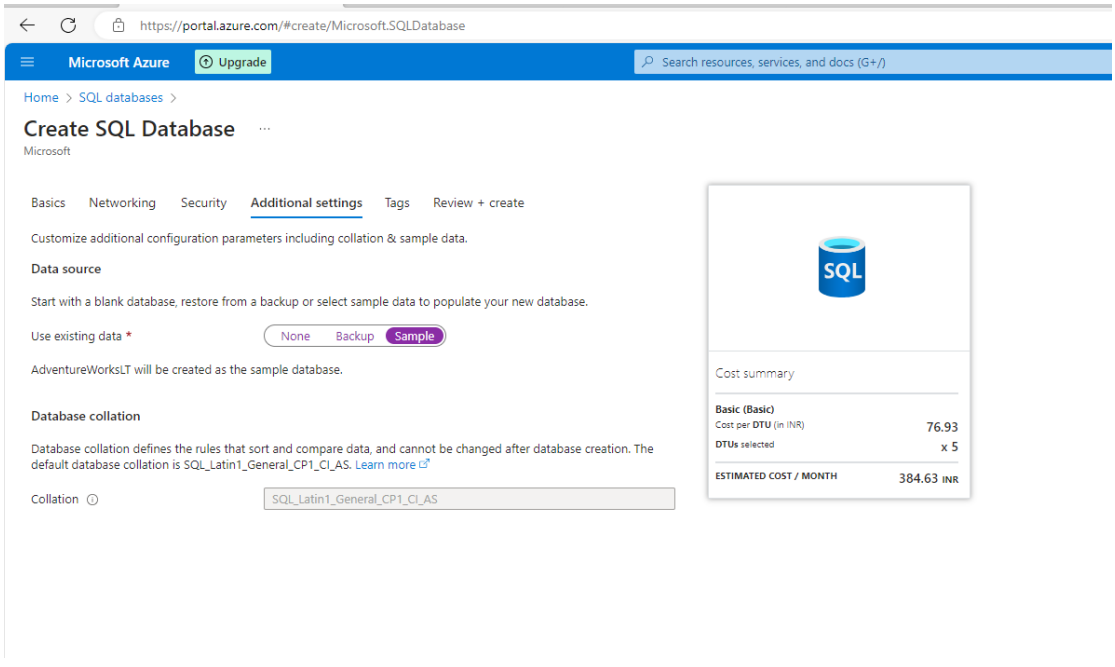
Database collation defines the rules that sort and compare data, and cannot be changed after database creation. The default database collation is SQL_Latin1_General_CP1_CI_AS. Learn more

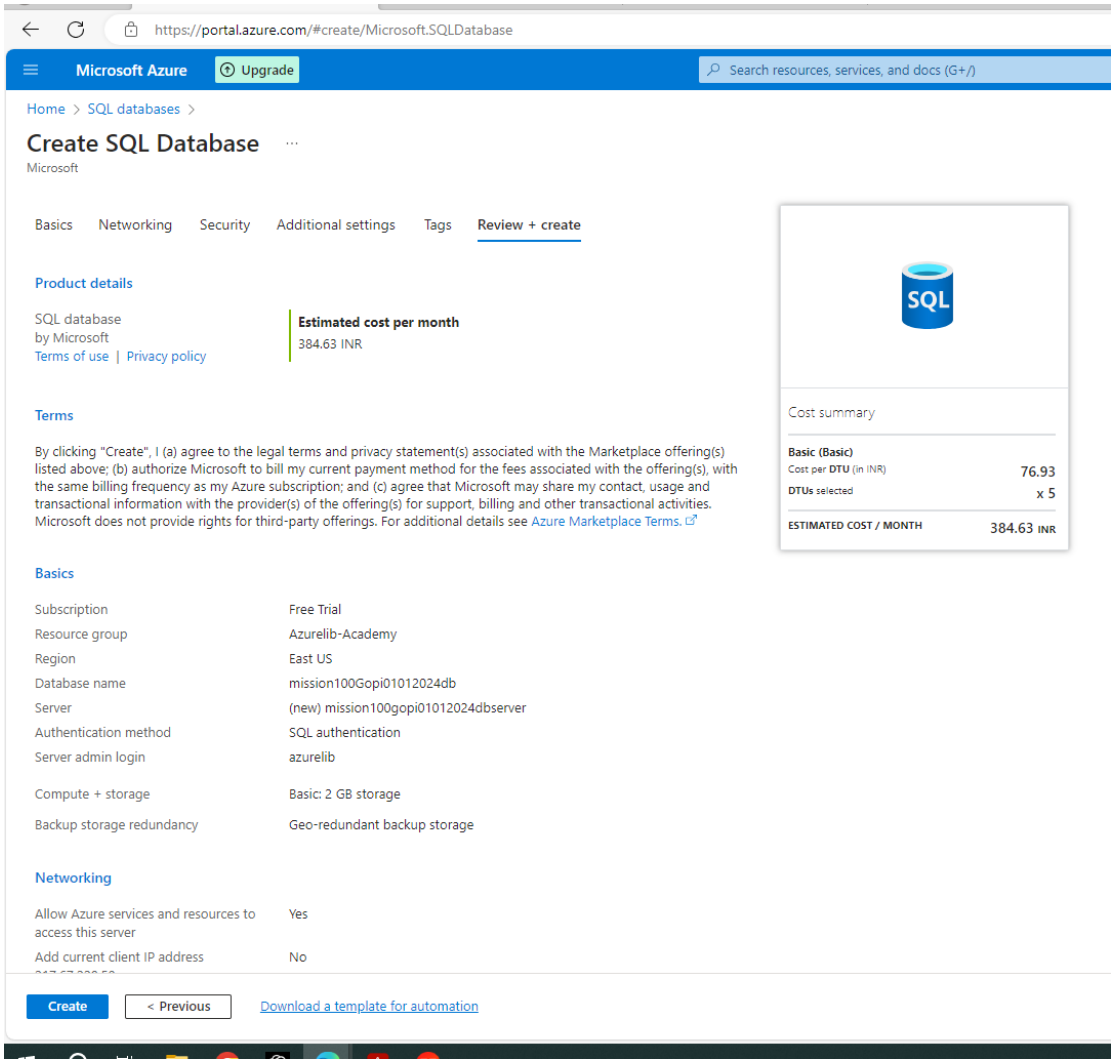
Collation: SQL_Latin1_General_CP1_CI_AS

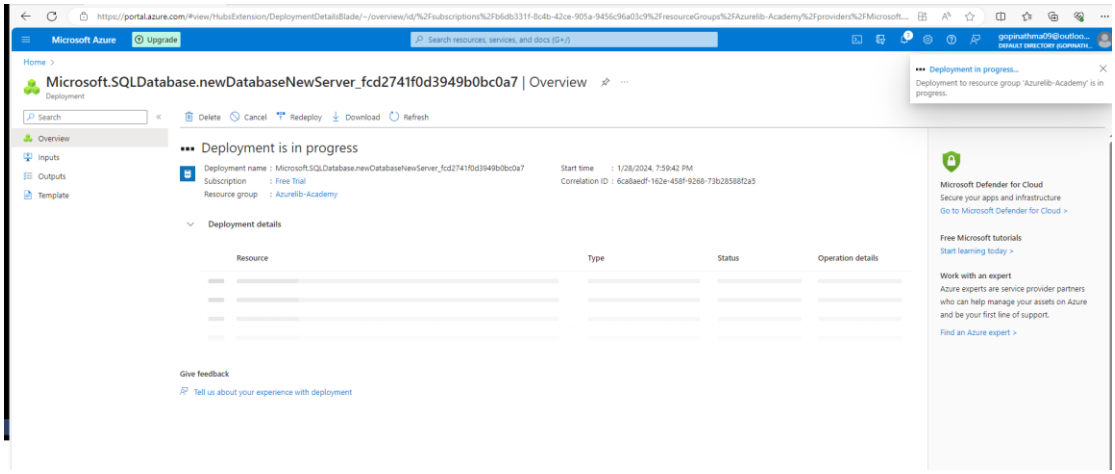
Cost summary

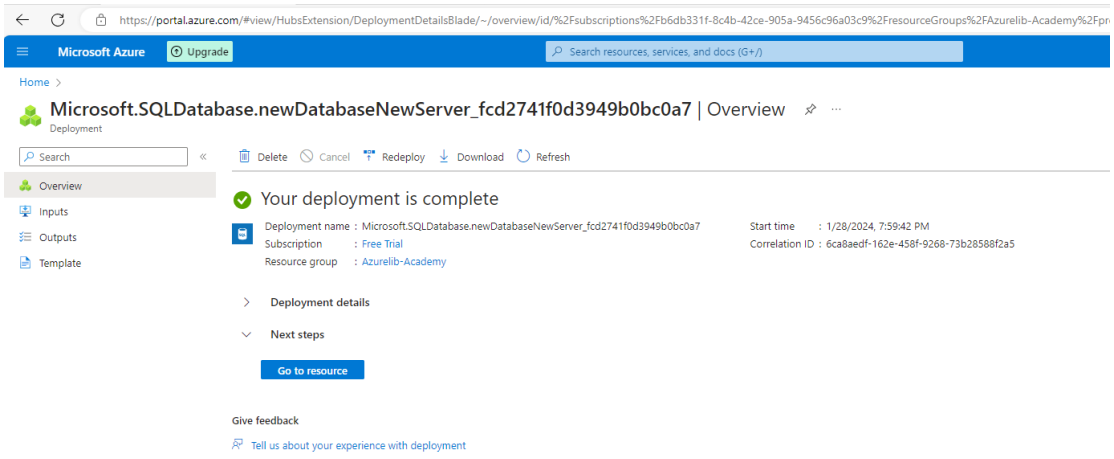
Basic (Basic)
Cost per DTU (in INR) 76.93
DTUs selected x 5
ESTIMATED COST / MONTH 384.63 INR

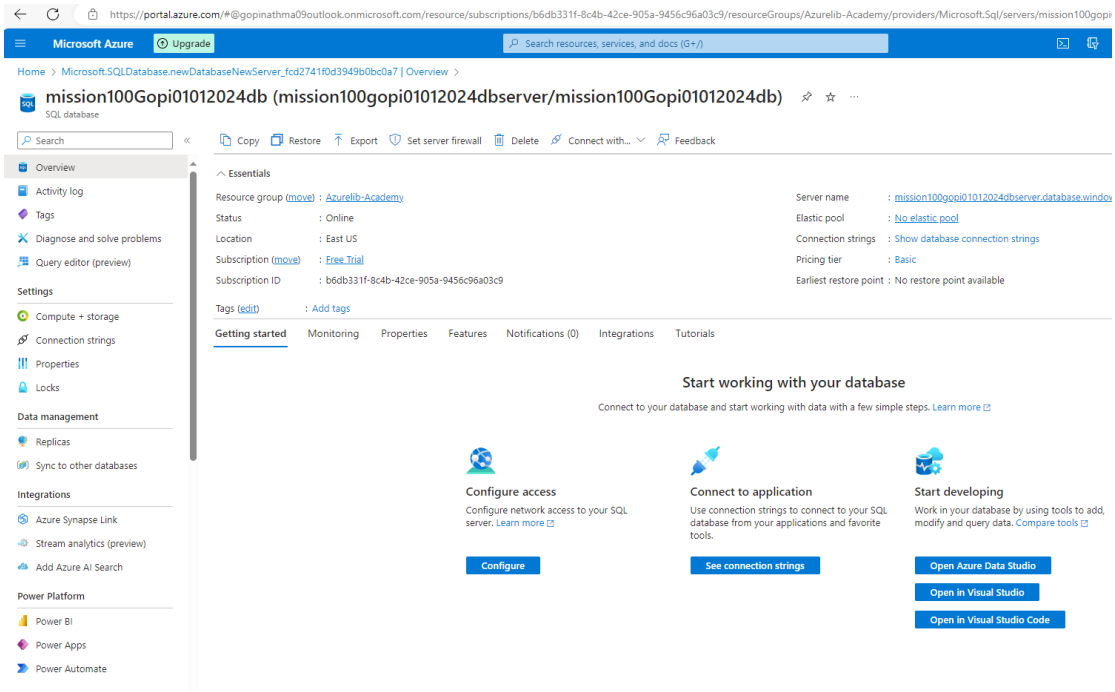

https://portal.azure.com/#create/Microsoft.SQLDatabase
Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Home > SQL databases >
Create SQL Database
Microsoft
Basics Networking Security Additional settings Tags Review + create
Microsoft Defender for SQL
Protect your data using Microsoft Defender for SQL, a unified security package including vulnerability assessment and advanced threat protection for your server. Learn more
Get started with a 30 day free trial period, and then 1178.0175 INR/server/month.
Enable Microsoft Defender for SQL *
Start free trial
Not now
Ledger
Ledger cryptographically verifies the integrity of your data and detects any tampering that might have occurred. Learn more
Ledger
Not configured
Configure ledger
Server identity
Use system assigned and user assigned managed identities to enable central access management between this database and other Azure resources. Learn more
Server identity
Not enabled
Configure Identities
Transparent data encryption key management
Transparent data encryption encrypts your databases, backups, and logs at rest without any changes to your application. To enable encryption, go to each database. Database level settings if enabled, will override the server level setting. Learn more
Server level key
Service-managed key selected
Configure transparent data encryption
Review + create
< Previous
Next : Additional settings >
SQL
Cost summary
Basic (Basic)
Cost per DTU (in INR)
76.93
DTUs selected
x 5
ESTIMATED COST / MONTH
384.63 INR

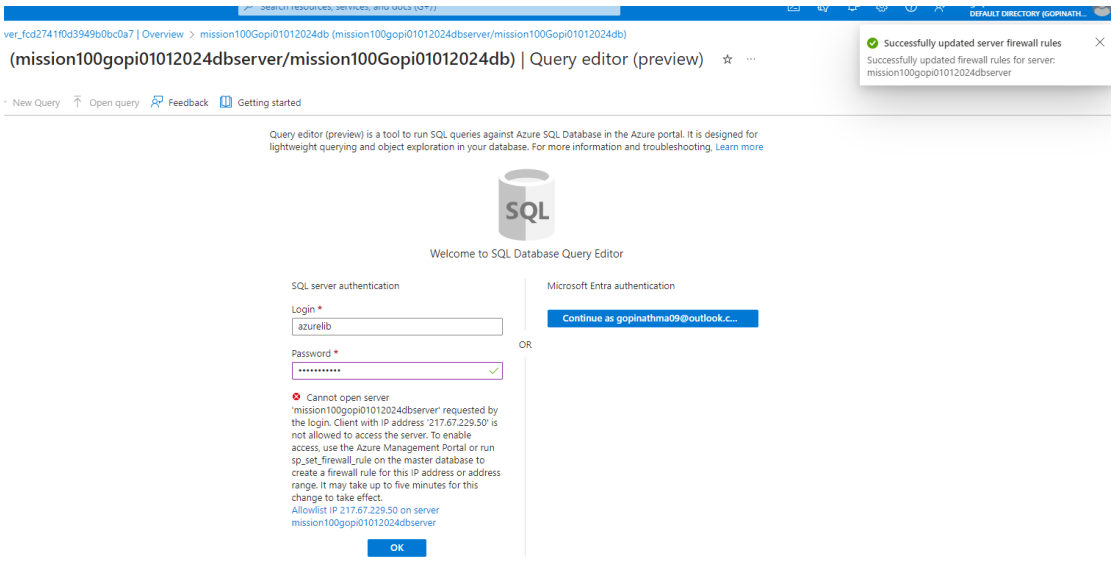

https://portal.azure.com/#create/Microsoft.SQLDatabase
Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Home > SQL databases >
Create SQL Database
Microsoft
Basics Networking Security Additional settings Tags Review + create
Customize additional configuration parameters including collation & sample data.
Data source
Start with a blank database, restore from a backup or select sample data to populate your new database.
Use existing data *
None Backup Sample
AdventureWorksLT will be created as the sample database.
Database collation
Database collation defines the rules that sort and compare data, and cannot be changed after database creation. The default database collation is SQL_Latin1_General_CP1_CI_AS. Learn more
Collation
SQL_Latin1_General_CP1_CI_AS
SQL
Cost summary
Basic (Basic)
Cost per DTU (in INR)
76.93
DTUs selected
x 5
ESTIMATED COST / MONTH
384.63 INR

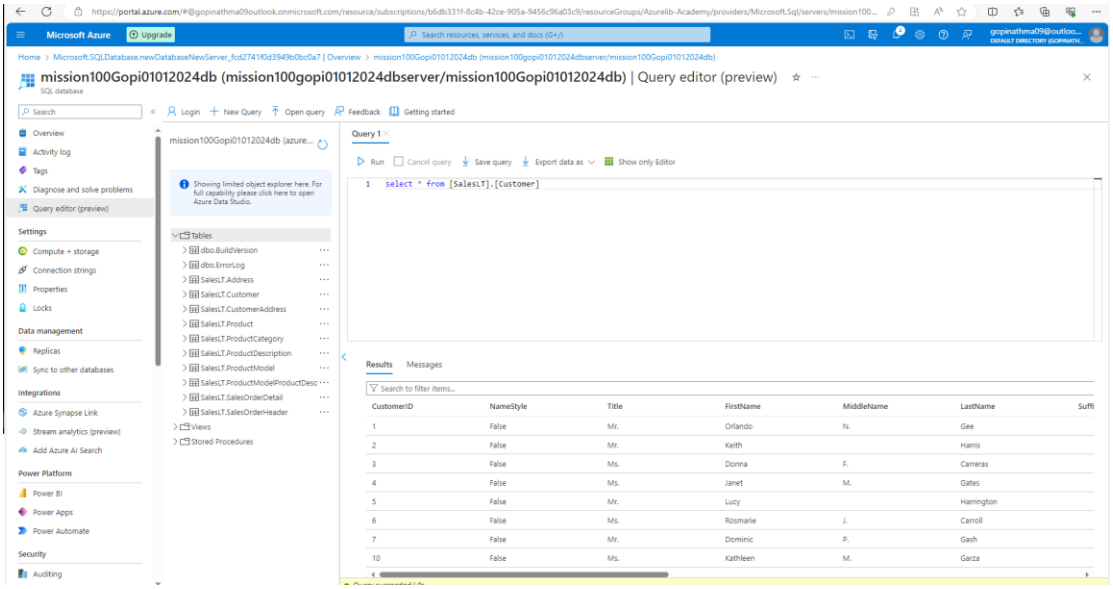

https://portal.azure.com/#create/Microsoft.SQLDatabase
Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Home > SQL databases >
Create SQL Database
Microsoft
Basics
Networking
Security
Additional settings
Tags
Review + create
Product details
SQL database
by Microsoft
Terms of use | Privacy policy
Estimated cost per month
384.63 INR
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 Free Trial
Resource group Azurelib-Academy
Region East US
Database name mission100Gopi01012024db
Server (new) mission100gopi01012024dbserver
Authentication method SQL authentication
Server admin login azurelib
Compute + storage Basic: 2 GB storage
Backup storage redundancy Geo-redundant backup storage
Networking
Allow Azure services and resources to access this server Yes
Add current client IP address No
Cost summary
Basic (Basic)
Cost per DTU (in INR) 76.93
DTUs selected x 5
ESTIMATED COST / MONTH 384.63 INR
Create
< Previous
Download a template for automation


Microsoft.SQLDatabase.newDatabaseNewServer_fcd2741f0d3949b0bc0a7 | Overview
Deployment
Delete
Cancel
Redeploy
Download
Refresh
Overview
Inputs
Outputs
Template
Deployment is in progress
Deployment name : Microsoft.SQLDatabase.newDatabaseNewServer_fcd2741f0d3949b0bc0a7
Subscription : Free Trial
Resource group : Azurelib-Academy
Start time : 1/28/2024, 7:59:42 PM
Correlation ID : 6ca8aedf-162e-458f-9268-73b28588f2a5
Deployment details
Resource
Type
Status
Operation details
Give feedback
Tell us about your experience with deployment
Deployment in progress...
Deployment to resource group 'Azurelib-Academy' is in progress.
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 >

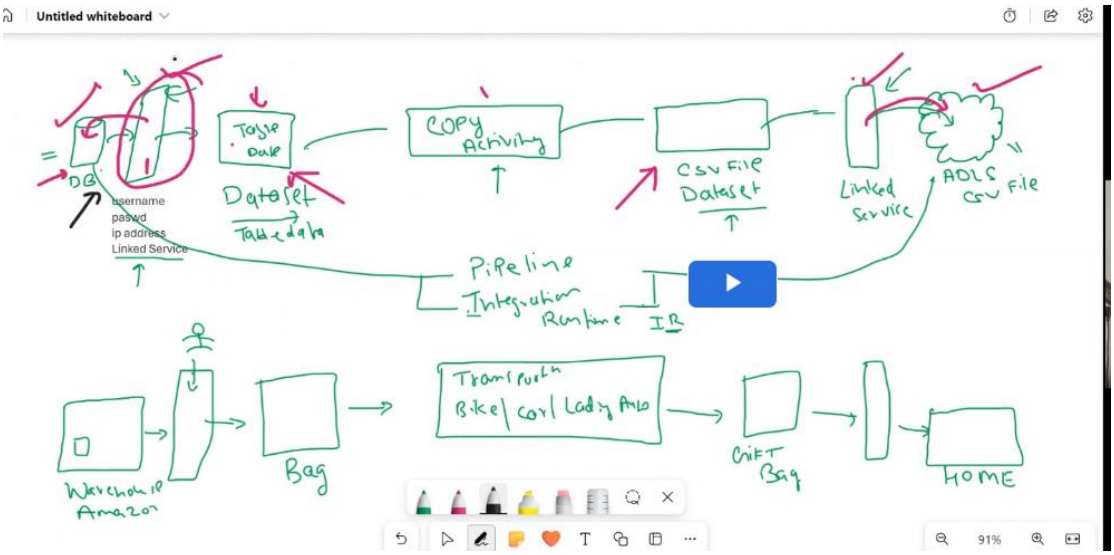

Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Home
Microsoft.SQLDatabase.newDatabaseNewServer_fcd2741f0d3949b0bc0a7 | Overview
Deployment
Search
Overview
Inputs
Outputs
Template
Delete
Cancel
Redeploy
Download
Refresh
Your deployment is complete
Deployment name : Microsoft.SQLDatabase.newDatabaseNewServer_fcd2741f0d3949b0bc0a7
Subscription : Free Trial
Resource group : Azurelib-Academy
Start time : 1/28/2024, 7:59:42 PM
Correlation ID : 6ca8aedf-162e-458f-9268-73b28588f2a5
Deployment details
Next steps
Go to resource
Give feedback
Tell us about your experience with deployment


Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Home
Microsoft.SQLDatabase.newDatabaseNewServer_fcd2741f0d3949b0bc0a7 | Overview
mission100Gopi01012024db (mission100gopi01012024dbserver/mission100Gopi01012024db)
SQL database
Search
Overview
Activity log
Tags
Diagnose and solve problems
Query editor (preview)
Settings
Compute + storage
Connection strings
Properties
Locks
Data management
Replicas
Sync to other databases
Integrations
Azure Synapse Link
Stream analytics (preview)
Add Azure AI Search
Power Platform
Power BI
Power Apps
Power Automate
Copy
Restore
Export
Set server firewall
Delete
Connect with...
Feedback
Essentials
Resource group (move) : Azurelib-Academy
Status : Online
Location : East US
Subscription (move) : Free Trial
Subscription ID : b6db331f-8c4b-42ce-905a-9456c96a03c9
Tags (edit) : Add tags
Server name : mission100gopi01012024dbserver.database.windo
Elastic pool : No elastic pool
Connection strings : Show database connection strings
Pricing tier : Basic
Earliest restore point : No restore point available
Getting started
Monitoring
Properties
Features
Notifications (0)
Integrations
Tutorials
Start working with your database
Connect to your database and start working with data with a few simple steps. Learn more
Configure access
Configure network access to your SQL server. Learn more
Configure
Connect to application
Use connection strings to connect to your SQL database from your applications and favorite tools.
See connection strings
Start developing
Work in your database by using tools to add, modify and query data. Compare tools
Open Azure Data Studio
Open in Visual Studio
Open in Visual Studio Code

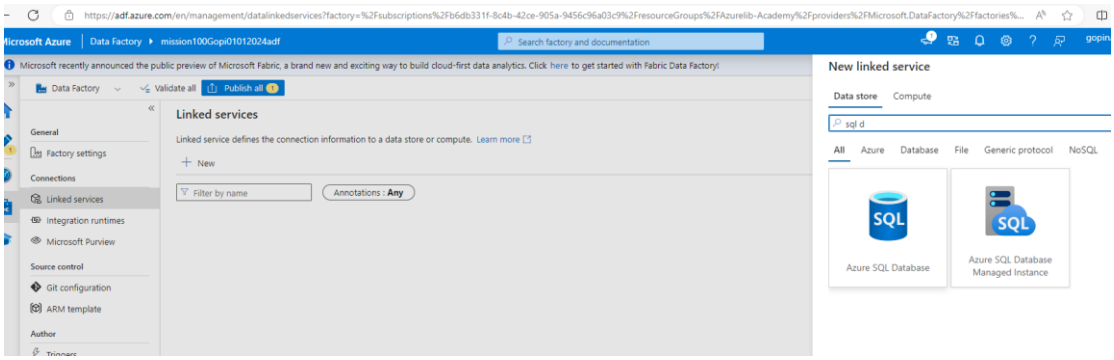

Successfully updated server firewall rules
Successfully updated firewall rules for server: mission100gopi01012024dbserver
(mission100gopi01012024dbserver/mission100Gopi01012024db) | Query editor (preview)
New Query
Open query
Feedback
Getting started
Query editor (preview) is a tool to run SQL queries against Azure SQL Database in the Azure portal. It is designed for lightweight querying and object exploration in your database. For more information and troubleshooting, Learn more
SQL
Welcome to SQL Database Query Editor
SQL server authentication
Login *
azurelib
Password *
Cannot open server 'mission100gopi01012024dbserver' requested by the login. Client with IP address '217.67.229.50' is not allowed to access the server. To enable access, use the Azure Management Portal or run sp_set_firewall_rule on the master database to create a firewall rule for this IP address or address range. It may take up to five minutes for this change to take effect.
Allowlist IP 217.67.229.50 on server mission100gopi01012024dbserver
OK
OR
Microsoft Entra authentication
Continue as gopinathma09@outlook.c...



Assignment 4 :
ADF Pipeline 1:



Linked Service 1: Connecting to Azure SQL Database:


https://adf.azure.com/en/management/datalinkedservices?factory=%2Fsubscriptions%2Fb6db331f-8c4b-42ce-905a-9456c96a03c9%2FresourceGroups%2FAzurelib-Academy%2Fproviders%2FMicrosoft.DataFactory%2Ffactories%...
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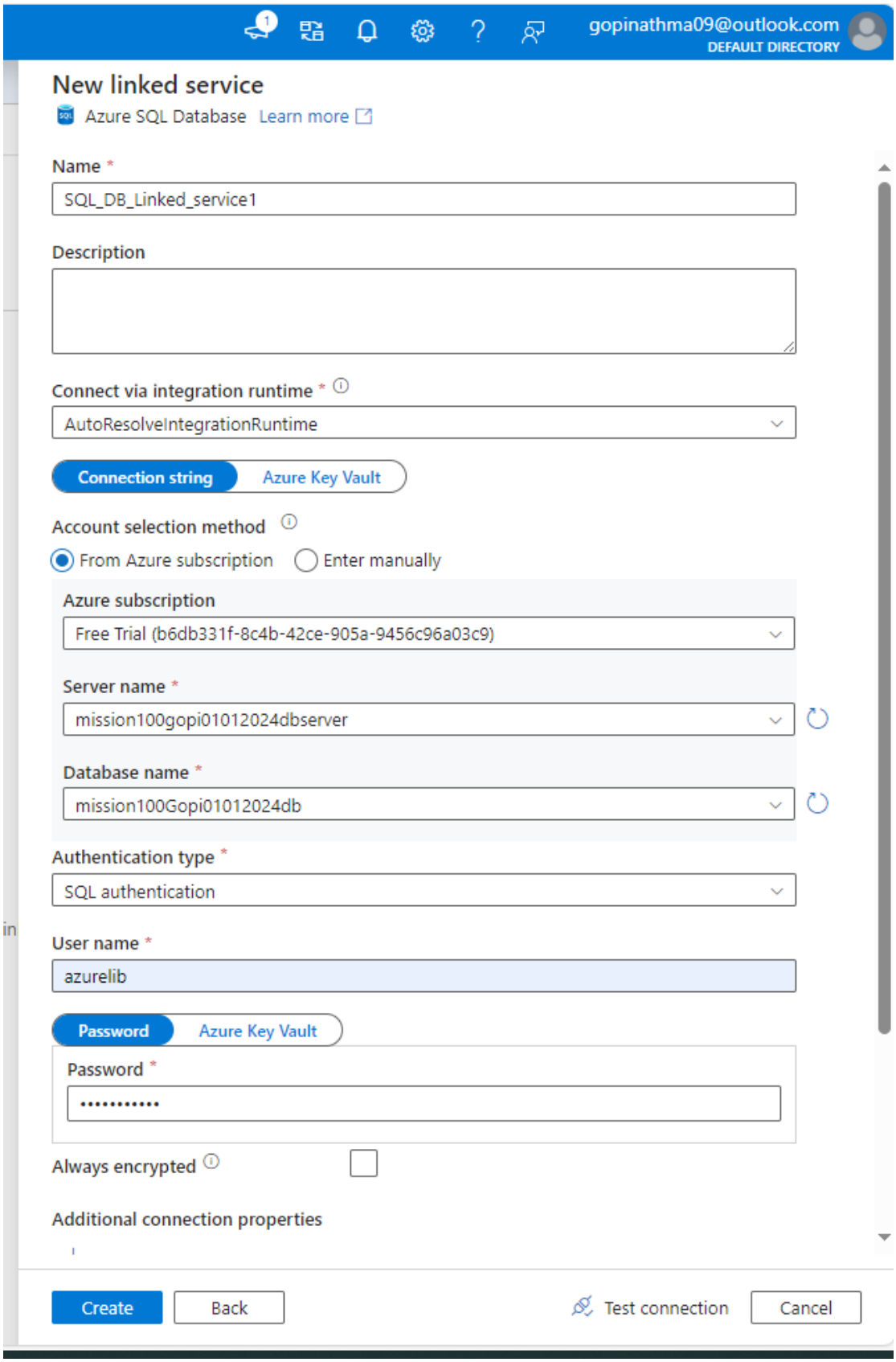
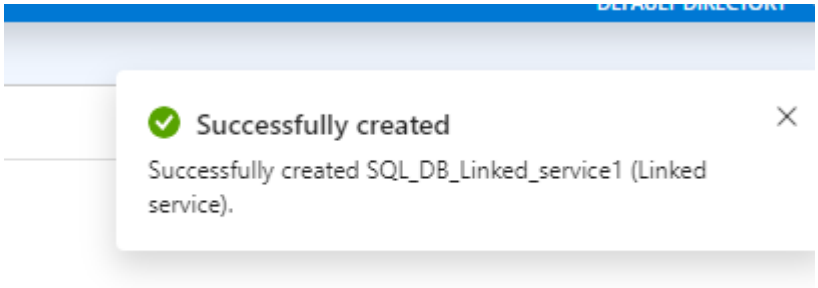
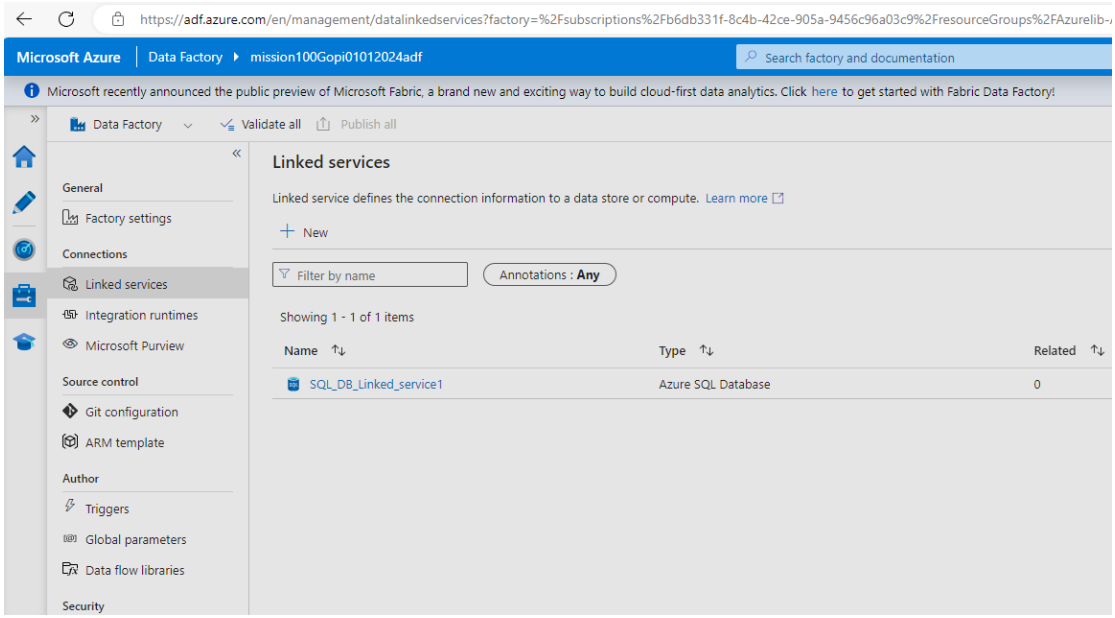
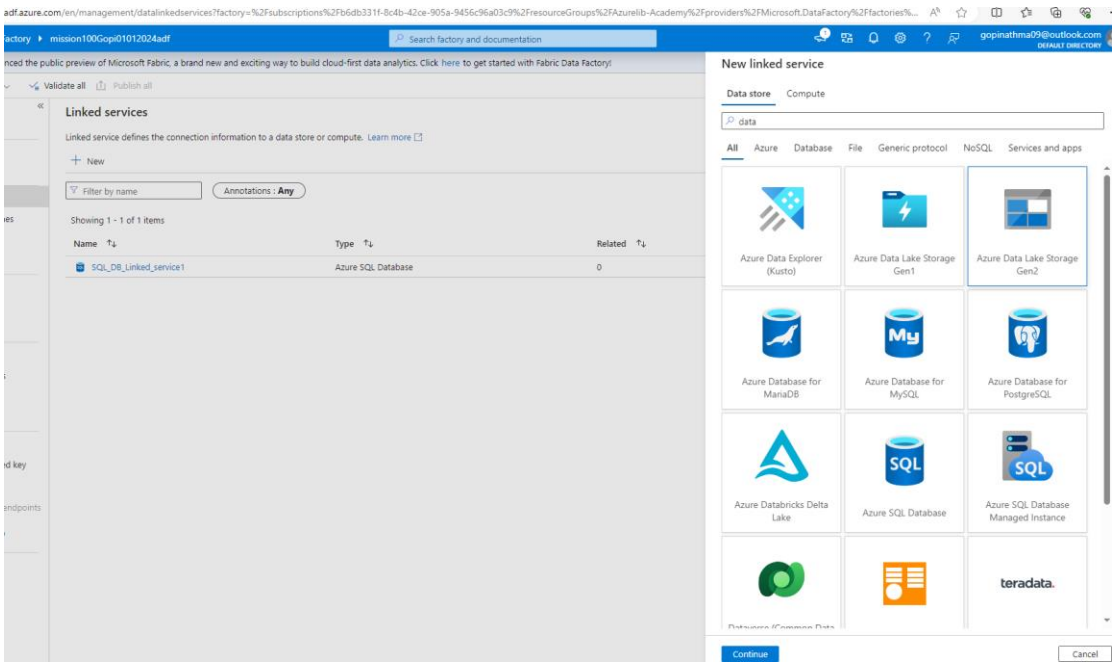
Git configuration
ARM template
Author
Linked services
Linked service defines the connection information to a data store or compute. Learn more
New
Filter by name
Annotations : Any
New linked service
Data store
Compute
sql d
All
Azure
Database
File
Generic protocol
NoSQL
Azure SQL Database
Azure SQL Database Managed Instance


gopinathma09@outlook.com
DEFAULT DIRECTORY
New linked service
Azure SQL Database Learn more
Name *
SQL_DB_Linked_service1
Description
Connect via integration runtime *
AutoResolveIntegrationRuntime
Connection string
Azure Key Vault
Account selection method
From Azure subscription
Enter manually
Azure subscription
Free Trial (b6db331f-8c4b-42ce-905a-9456c96a03c9)
Server name *
mission100gopi01012024dbserver
Database name *
mission100Gopi01012024db
Authentication type *
SQL authentication
User name *
azurelib
Password
Azure Key Vault
Password *
Always encrypted
Additional connection properties
Create
Back
Test connection
Cancel

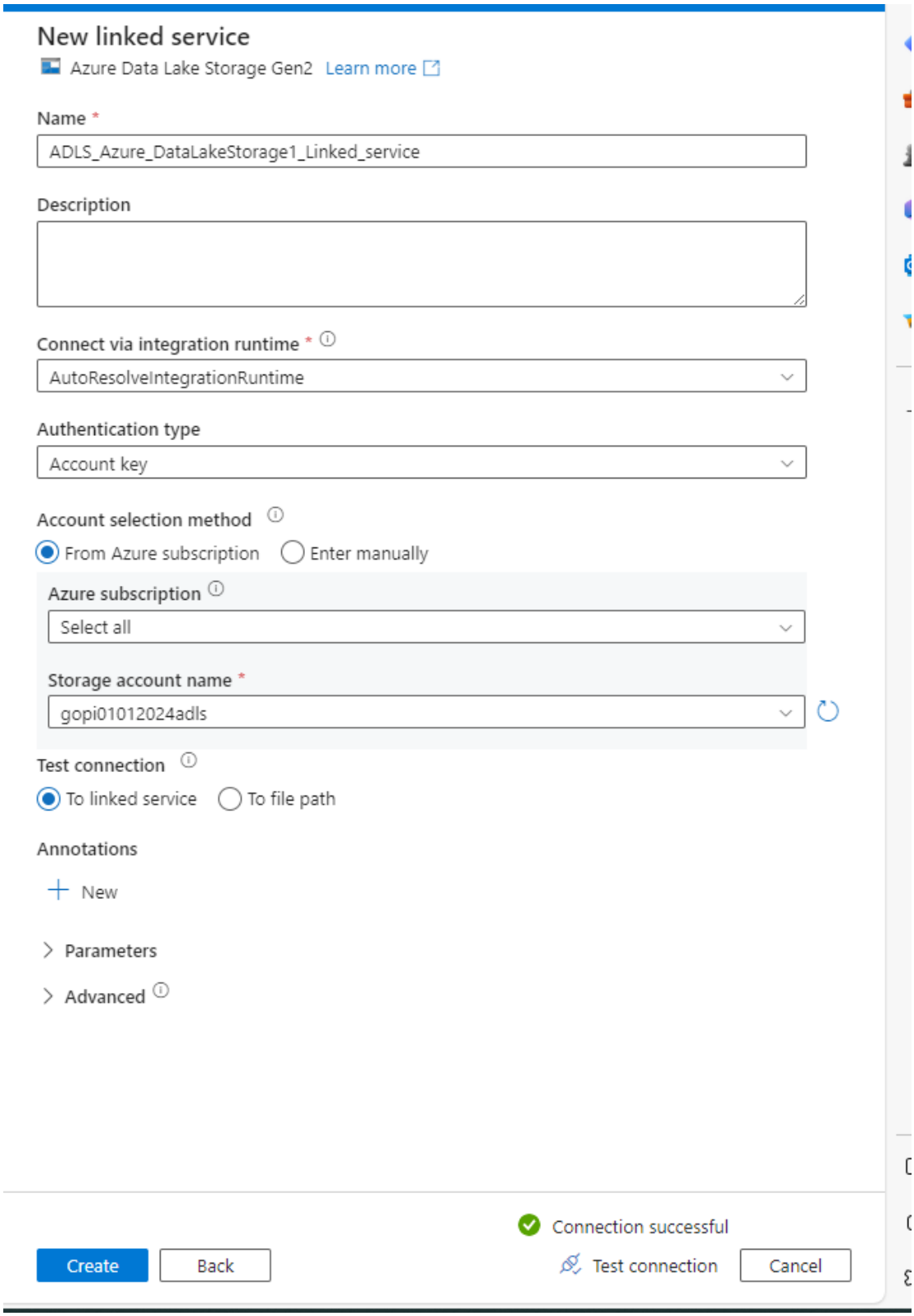


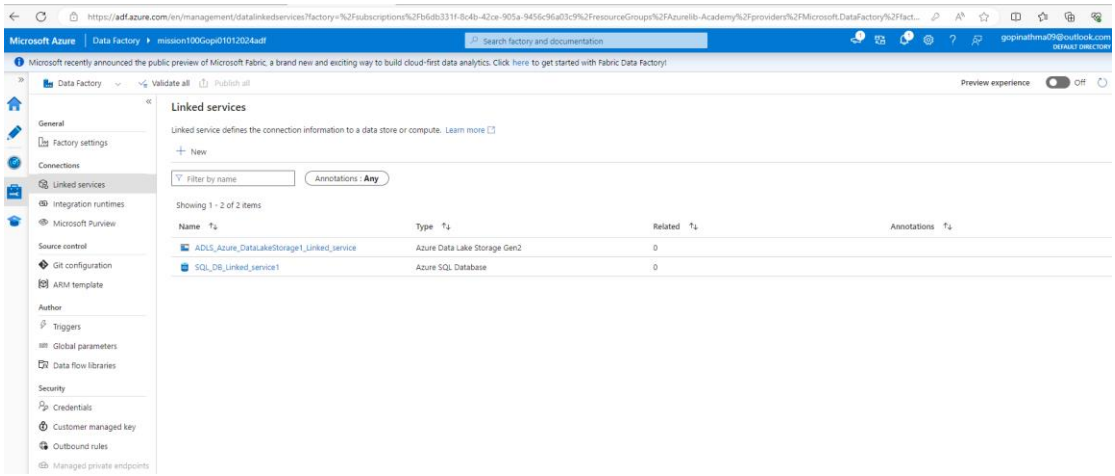


Linked Service 2: Connecting to Azure Data Lake Storage 2:



Create a Dataset:
ADF--> Author -->




https://adf.azure.com/en/management/datalinkedservices?factory=%2Fsubscriptions%2Fb6db331f-8c4b-42ce-905a-9456c96a03c9%2FresourceGroups%2FAzurelib-Academy%2Fproviders%2FMicrosoft.DataFactory%2Ffact...
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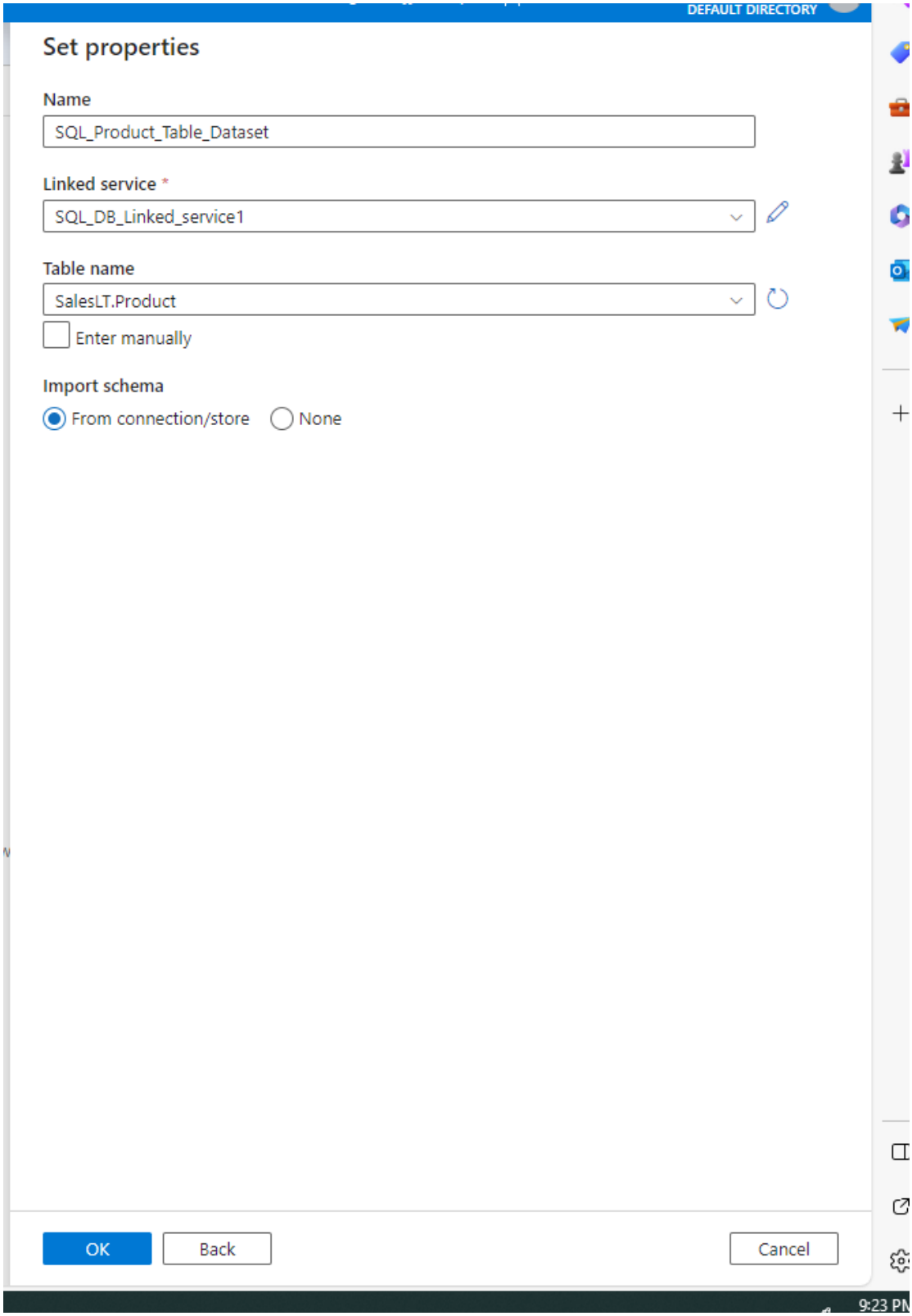
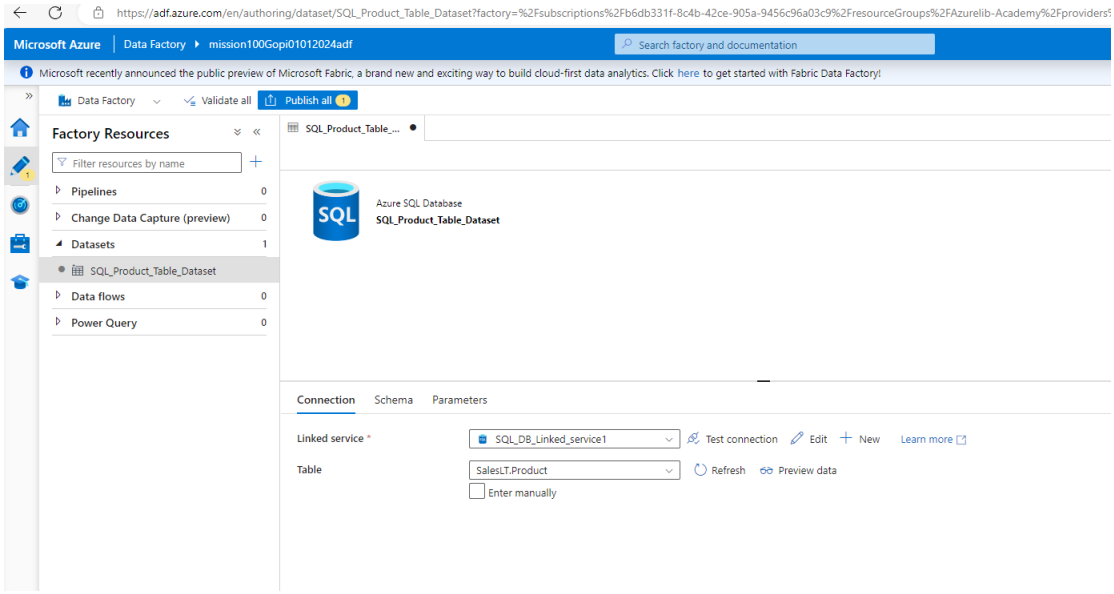
Triggers
Global parameters
Data flow libraries
Security
Credentials
Customer managed key
Outbound rules
Managed private endpoints
Linked services
Linked service defines the connection information to a data store or compute. Learn more
New
Filter by name
Annotations : Any
Showing 1 - 2 of 2 items
Name
Type
Related
Annotations
ADLS_Azure_DataLakeStorage1_Linked_service
Azure Data Lake Storage Gen2
0
SQL_DB_Linked_service1
Azure SQL Database
0


DEFAULT DIRECTORY
Set properties
Name
SQL_Product_Table_Dataset
Linked service *
SQL_DB_Linked_service1
Table name
SalesLT.Product
Enter manually
Import schema
From connection/store
None
OK
Back
Cancel
9:23 PM


https://adf.azure.com/en/authoring/dataset/SQL_Product_Table_Dataset?factory=%2Fsubscriptions%2Fb6db331f-8c4b-42ce-905a-9456c96a03c9%2FresourceGroups%2FAzurelib-Academy%2Fproviders%
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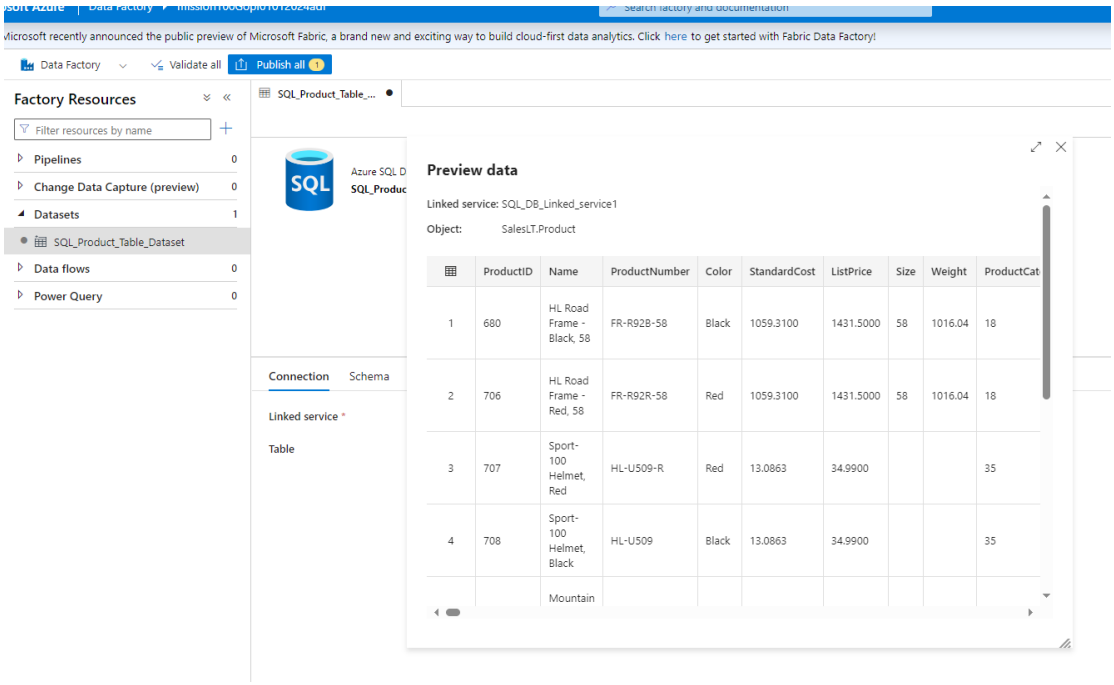
Filter resources by name
Pipelines 0
Change Data Capture (preview) 0
Datasets 1
SQL_Product_Table_Dataset
Data flows 0
Power Query 0
SQL_Product_Table_...
Azure SQL Database
SQL_Product_Table_Dataset
Connection
Schema
Parameters
Linked service *
SQL_DB_Linked_service1
Test connection
Edit
New
Learn more
Table
SalesLT.Product
Refresh
Preview data
Enter manually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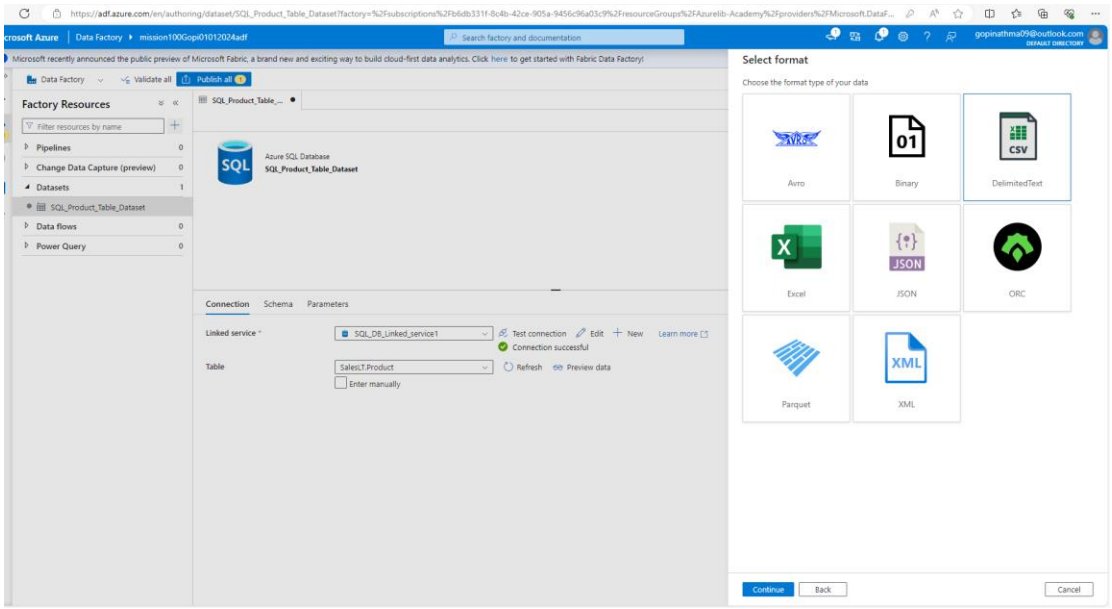
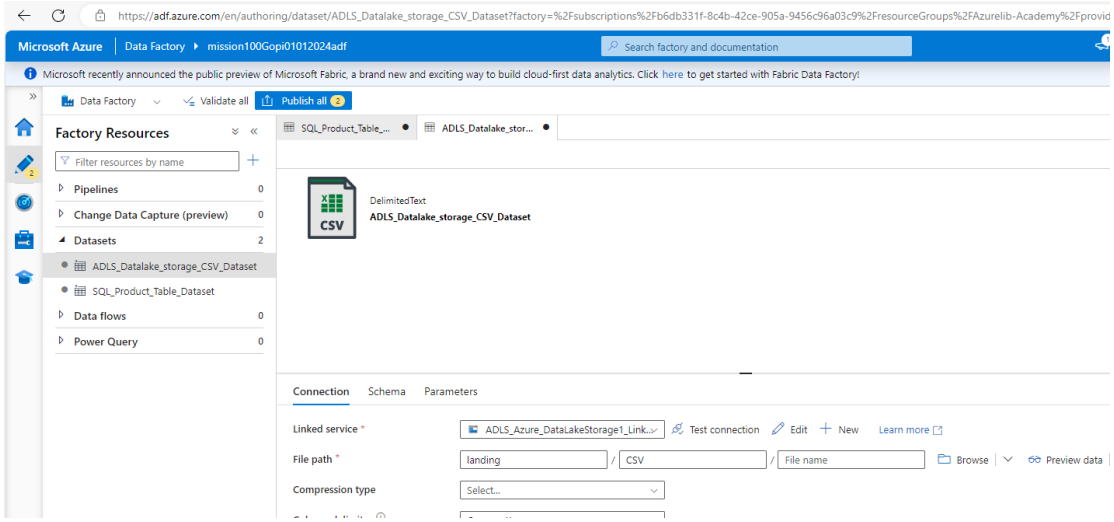
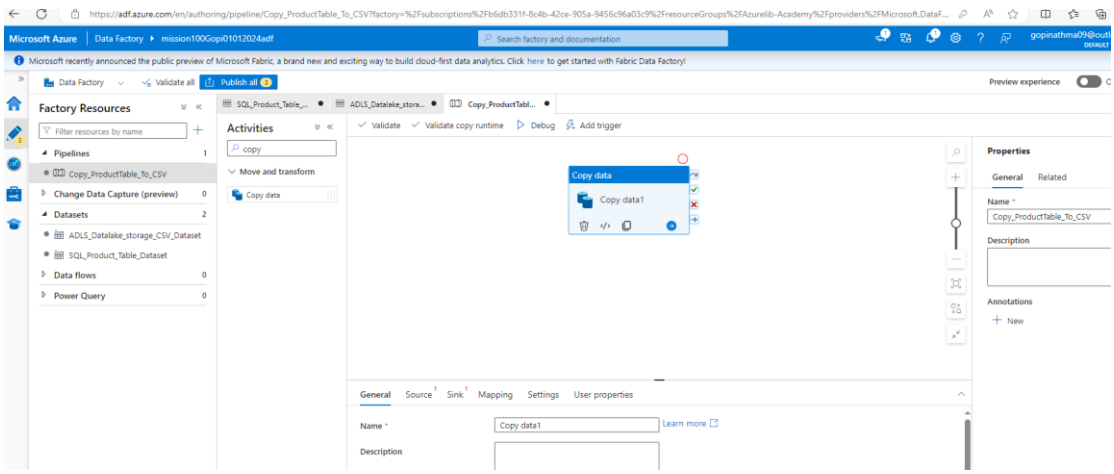
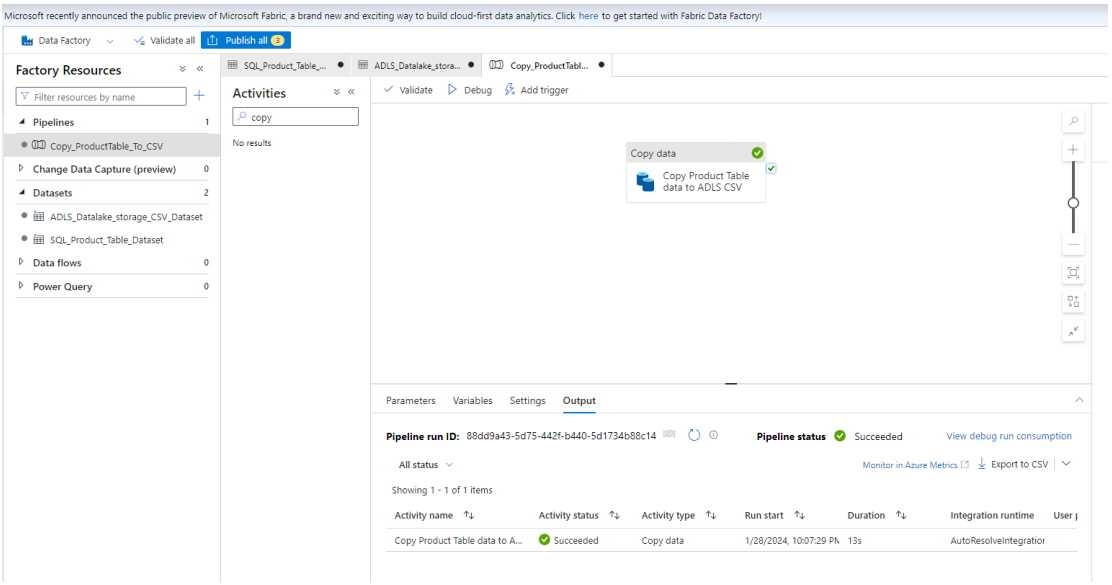
Data Factory
Validate all
Publish all 1
Factory Resources
Filter resources by name
Pipelines 0
Change Data Capture (preview) 0
Datasets 1
SQL_Product_Table_Dataset
Data flows 0
Power Query 0
SQL_Product_Table_...
Connection
Schema
Linked service *
Table
Preview data
Linked service: SQL_DB_Linked_service1
Object: SalesLT.Product
ProductID Name ProductNumber Color StandardCost ListPrice Size Weight ProductCat
1 680 HL Road Frame - Black, 58 FR-R92B-58 Black 1059.3100 1431.5000 58 1016.04 18
2 706 HL Road Frame - Red, 58 FR-R92R-58 Red 1059.3100 1431.5000 58 1016.04 18
3 707 Sport-100 Helmet, Red HL-U509-R Red 13.0863 34.9900 35
4 708 Sport-100 Helmet, Black HL-U509 Black 13.0863 34.9900 35
Mountain


Select format
Choose the format type of your data
Avro
Binary
DelimitedText
Excel
JSON
ORC
Parquet
XML
Continue
Back
Cancel


Microsoft Azure
Data Factory
mission100Gopi01012024adf
Factory Resources
Pipelines
Change Data Capture (preview)
Datasets
ADLS_Datalake_storage_CSV_Dataset
SQL_Product_Table_Dataset
Data flows
Power Query
DelimitedText
ADLS_Datalake_storage_CSV_Dataset
Connection
Schema
Parameters
Linked service
ADLS_Azure_DataLakeStorage1_Link...
Test connection
Edit
New
Learn more
File path
landing
CSV
File name
Browse
Preview data
Compression type
Select...


Factory Resources
Activities
Validate
Validate copy runtime
Debug
Add trigger
Copy data
Copy data1
Properties
General
Related
Name
Copy_ProductTable_To_CSV
Description
Annotations
New
General
Source
Sink
Mapping
Settings
User properties
Name
Copy data1
Learn more
Description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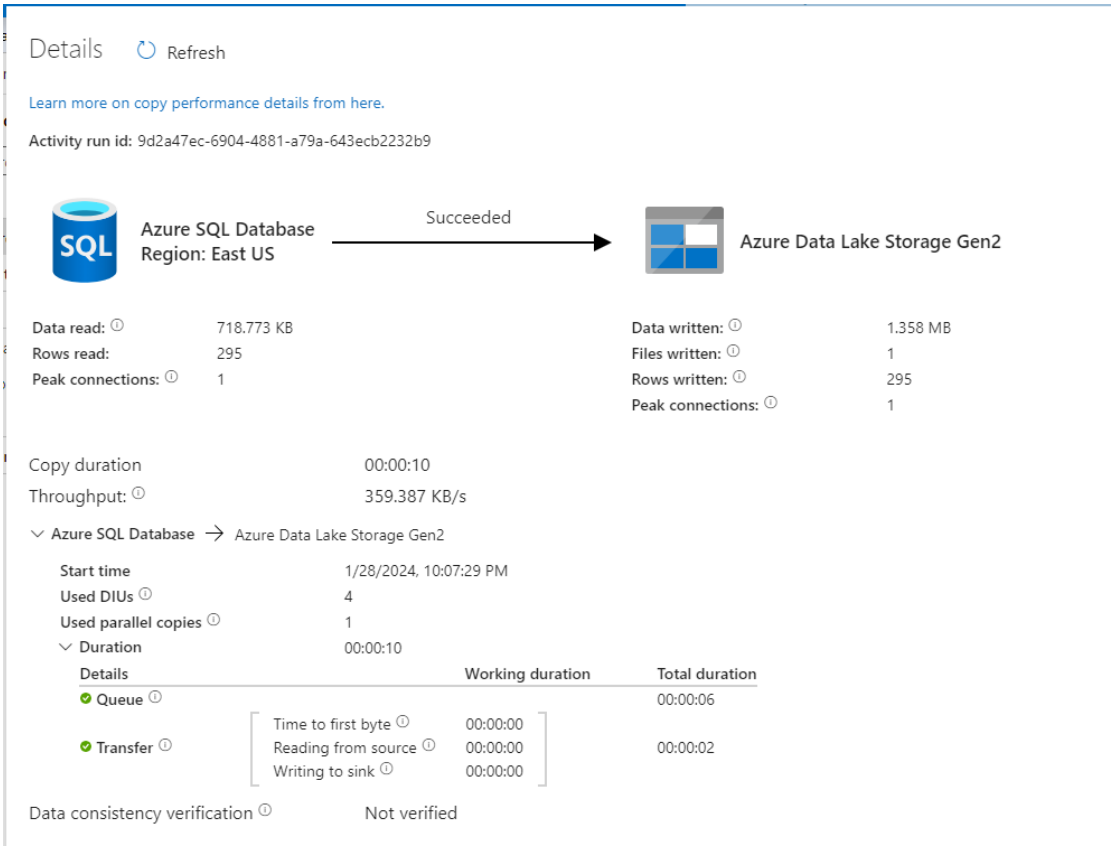
Data Factory
Validate all
Publish all
Factory Resources
Filter resources by name
Pipelines 1
Copy_ProductTable_To_CSV
Change Data Capture (preview) 0
Datasets 2
ADLS_Datalake_storage_CSV_Dataset
SQL_Product_Table_Dataset
Data flows 0
Power Query 0
Activities
copy
No results
Validate
Debug
Add trigger
Copy data
Copy Product Table data to ADLS CSV
Parameters
Variables
Settings
Output
Pipeline run ID: 88dd9a43-5d75-442f-b440-5d1734b88c14
Pipeline status Succeeded
View debug run consumption
All status
Monitor in Azure Metrics
Export to CSV
Showing 1 - 1 of 1 items
Activity name
Activity status
Activity type
Run start
Duration
Integration runtime
Copy Product Table data to A...
Succeeded
Copy data
1/28/2024, 10:07:29 PM
13s
AutoResolveIntegration


Details
Refresh
Learn more on copy performance details from here.
Activity run id: 9d2a47ec-6904-4881-a79a-643ecb2232b9
Azure SQL Database
Region: East US
Succeeded
Azure Data Lake Storage Gen2
Data read: 718.773 KB
Rows read: 295
Peak connections: 1
Data written: 1.358 MB
Files written: 1
Rows written: 295
Peak connections: 1
Copy duration 00:00:10
Throughput: 359.387 KB/s
Azure SQL Database → Azure Data Lake Storage Gen2
Start time 1/28/2024, 10:07:29 PM
Used DIUs 4
Used parallel copies 1
Duration 00:00:10
Details
Working duration
Total duration
Queue 00:00:06
Transfer 00:00:02
Time to first byte 00:00:00
Reading from source 00:00:00
Writing to sink 00:00:00
Data consistency verification Not verified

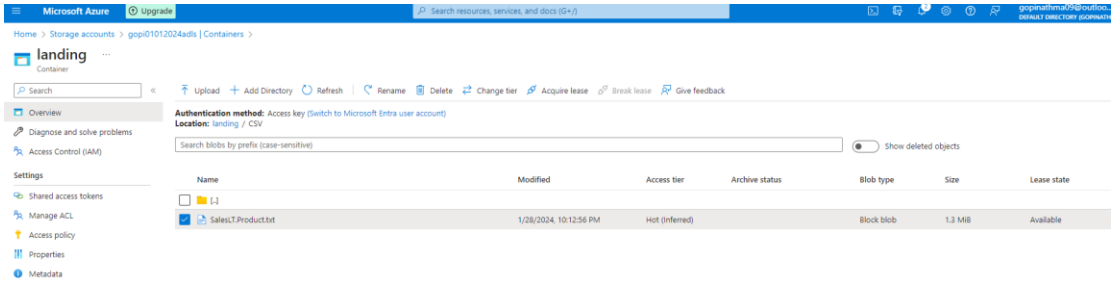
Publish all

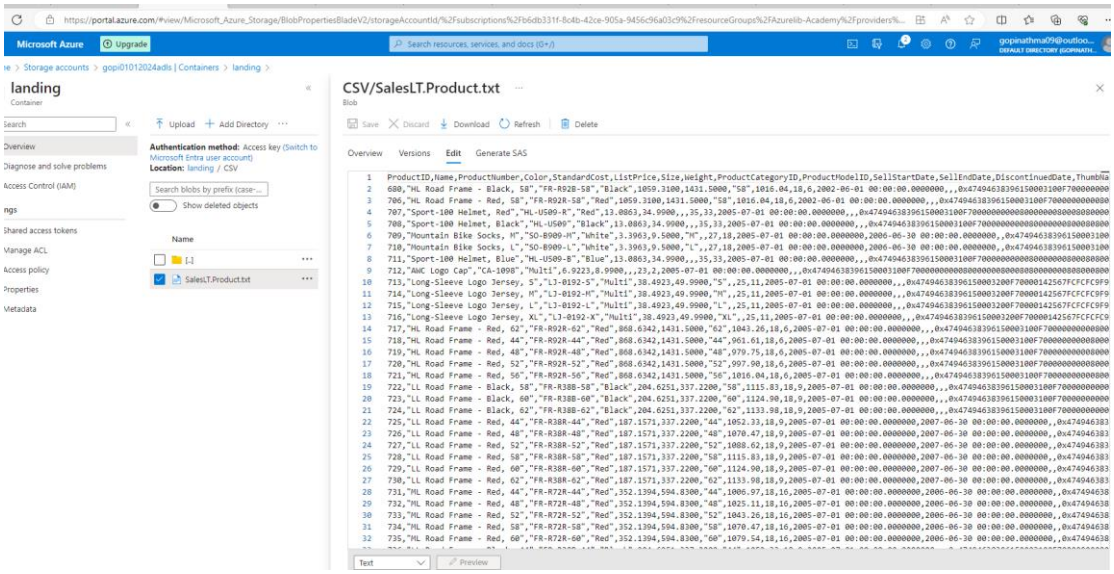
You are about to publish all pending changes to the live environment. Learn more

Pending changes (3)

NAME	CHANGE	EXISTING
Pipelines		
Copy_ProductTable_To_CSV	(New)	-
Datasets		
SQL_Product_Table_Dataset	(New)	-
ADLS_Datalake_storage_C...	(New)	-

Publish Cancel





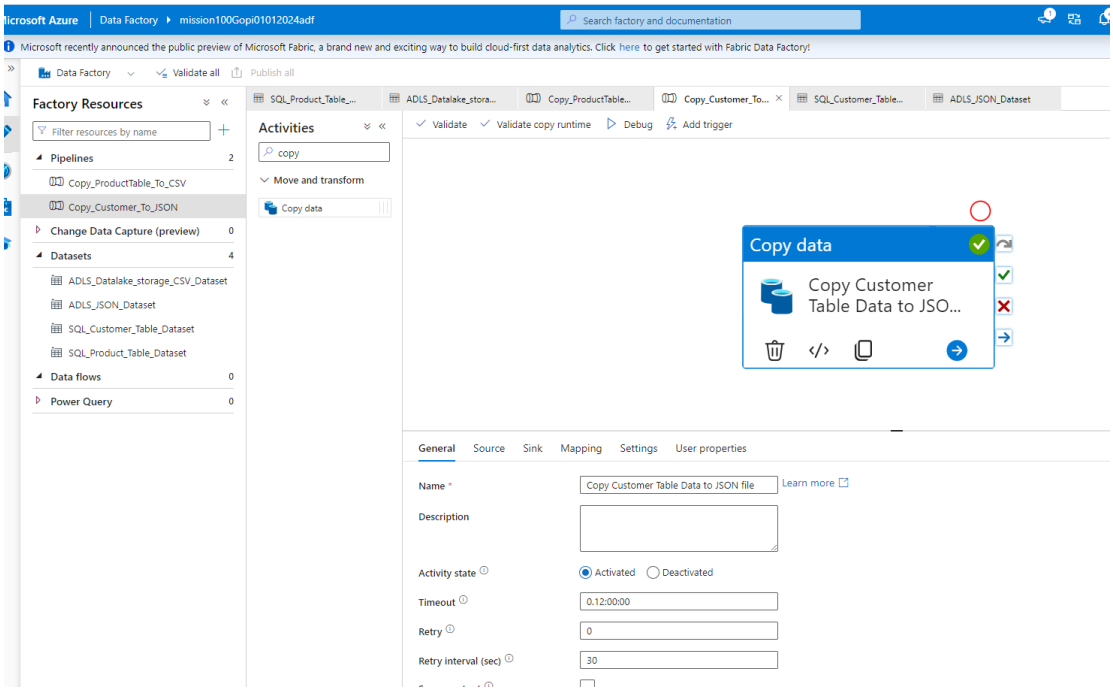
Assignment 4

Pipeline 2:

Create another pipeline name: Copy_Customer_To_JSON In the newly created SQL DB there is one built in SalesLt.Customer table.

Copy the Customer table data to JSON file in 'landing/JSON' folder in ADLS using the ADF.

Hint:During the dataset creation step instead of choosing the file type CSV choose JSON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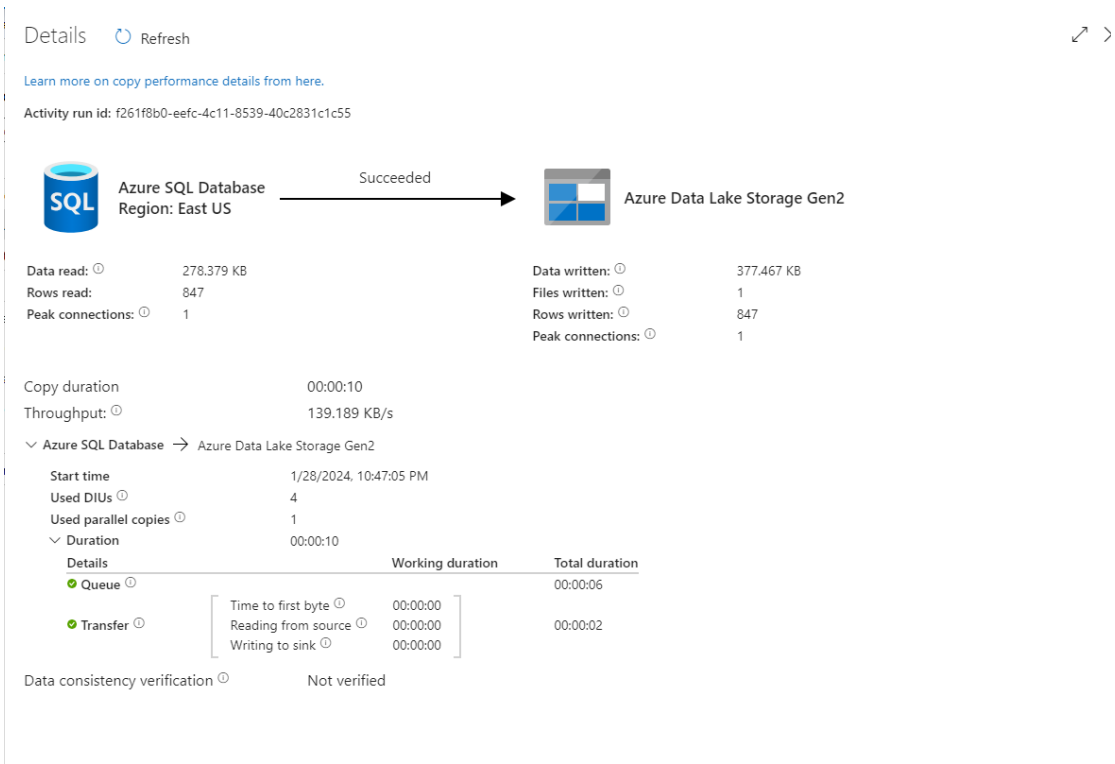
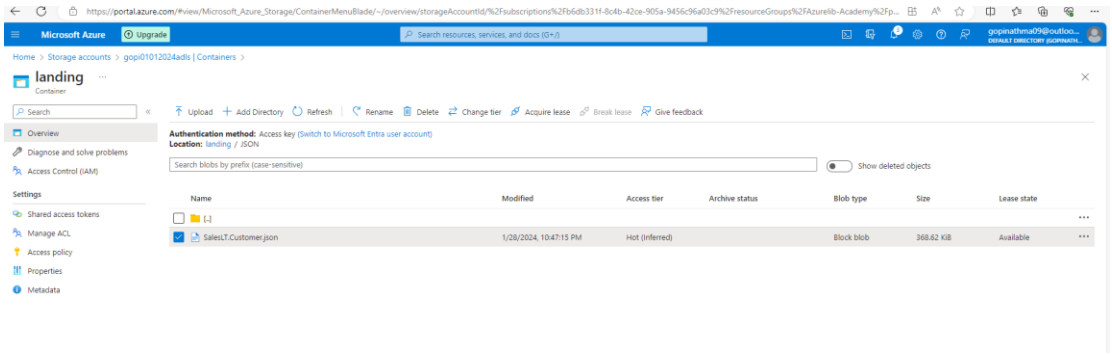
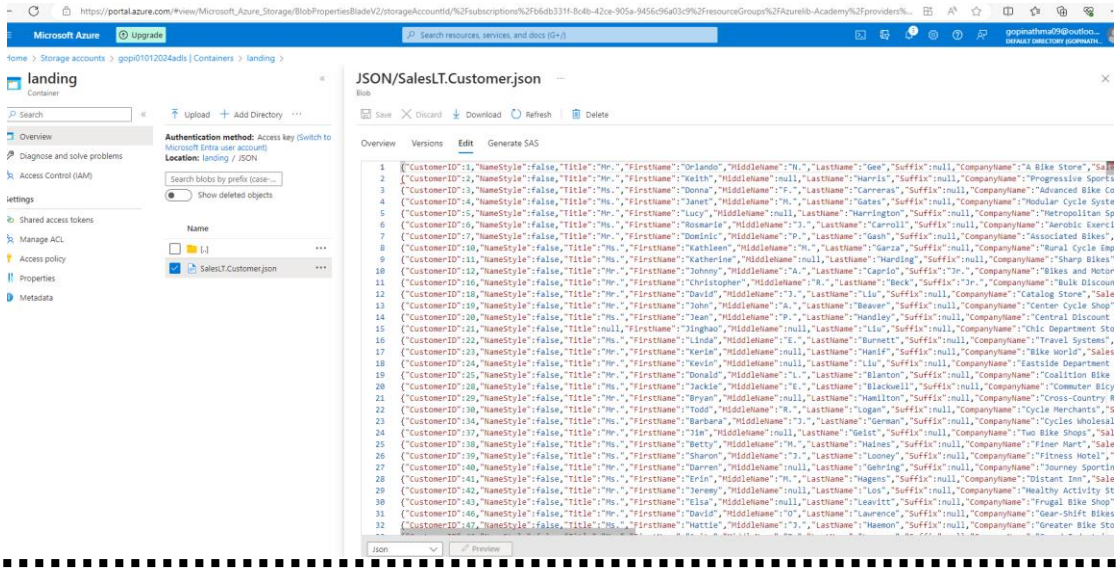
Pipelines 2
Copy_ProductTable_To_CSV
Copy_Customer_To_JSON
Change Data Capture (preview) 0
Datasets 4
ADLS_Datalake_storage_CSV_Dataset
ADLS_JSON_Dataset
SQL_Customer_Table_Dataset
SQL_Product_Table_Dataset
Data flows 0
Power Query 0
SQL_Product_Table_...
ADLS_Datalake_stora...
Copy_ProductTable...
Copy_Customer_To...
SQL_Customer_Table...
ADLS_JSON_Dataset
Activities
copy
Move and transform
Copy data
Validate
Validate copy runtime
Debug
Add trigger
Copy data
Copy Customer Table Data to JSO...
General
Source
Sink
Mapping
Settings
User properties
Name *
Copy Customer Table Data to JSON file
Learn more
Description
Activity state
Activated
Deactivated
Timeout
0.12:00:00
Retry
0
Retry interval (sec)
30


Details
Refresh
Learn more on copy performance details from here.
Activity run id: f261f8b0-eefc-4c11-8539-40c2831c1c55
Azure SQL Database
Region: East US
Succeeded
Azure Data Lake Storage Gen2
Data read: 278.379 KB
Rows read: 847
Peak connections: 1
Data written: 377.467 KB
Files written: 1
Rows written: 847
Peak connections: 1
Copy duration 00:00:10
Throughput: 139.189 KB/s
Azure SQL Database → Azure Data Lake Storage Gen2
Start time 1/28/2024, 10:47:05 PM
Used DIUs 4
Used parallel copies 1
Duration 00:00:10
Details
Working duration
Total duration
Queue
00:00:06
Transfer
Time to first byte 00:00:00
Reading from source 00:00:00
Writing to sink 00:00:00
00:00:02
Data consistency verification
Not verified

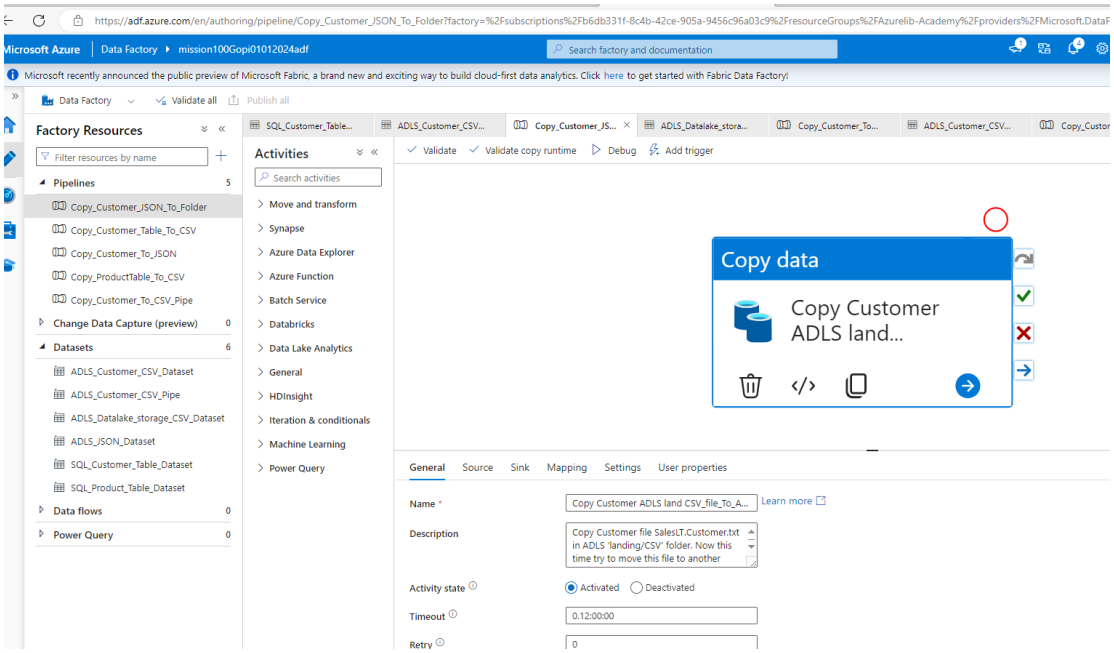




Pipeline 3:

Create another pipeline name: C**opy_Customer_JSON_To_Fold**er. In the last pipeline 1, you have created the Customer fil**e in ADLS 'landing/CSV' fold**er. Now this time try to move this file to another ADLS folder 'landing/CSV2' using the ADF pipeline.

Hint: This time our source is **ADLS 'landing/CSV'** folder and destination is also of ADLS type but different folde**r 'landing/CSV2' (Y**ou can create one more dataset)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Factory Resources
Pipelines
Copy_Customer_JSON_To_Folder
Copy_Customer_Table_To_CSV
Copy_Customer_To_JSON
Copy_ProductTable_To_CSV
Copy_Customer_To_CSV_Pipe
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ADLS_Customer_CSV_Dataset
ADLS_Customer_CSV_Pipe
ADLS_Datalake_storage_CSV_Dataset
ADLS_JSON_Dataset
SQL_Customer_Table_Dataset
SQL_Product_Table_Dataset
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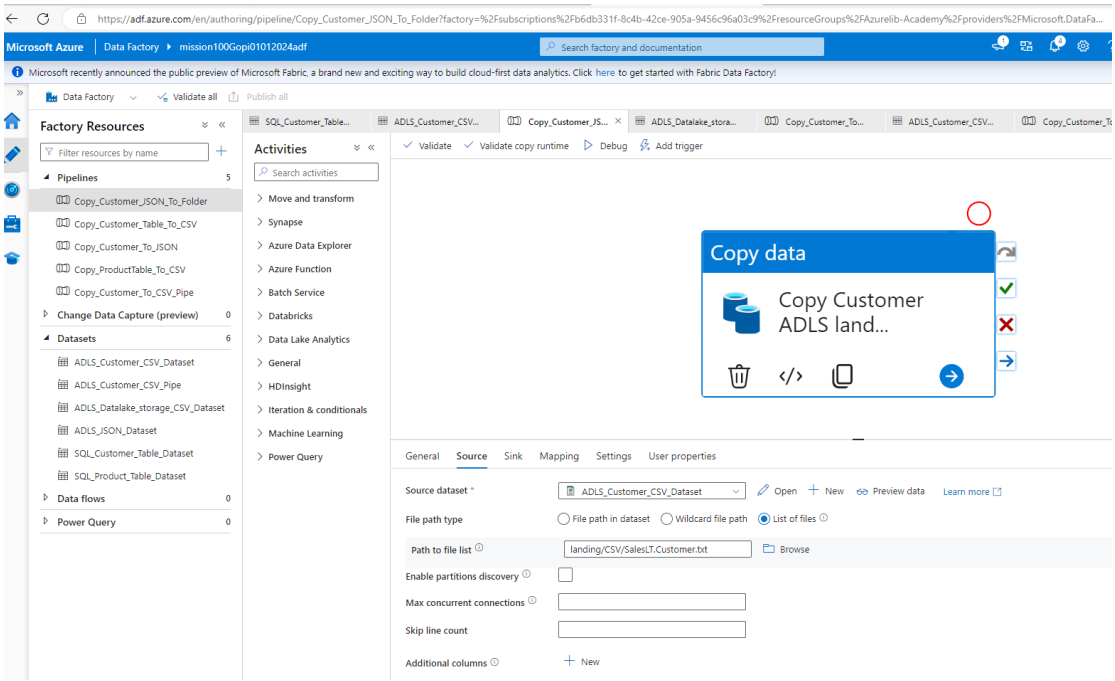
Move and transform
Synapse
Azure Data Explorer
Azure Function
Batch Service
Databricks
Data Lake Analytics
General
HDInsight
Iteration & conditionals
Machine Learning
Power Query
Validate
Validate copy runtime
Debug
Add trigger
Copy data
Copy Customer ADLS land...
General
Source
Sink
Mapping
Settings
User properties
Name
Copy Customer ADLS land CSV_file_To_A...
Learn more
Description
Copy Customer file SalesLT.Customer.txt in ADLS 'landing/CSV' folder. Now this time try to move this file to another
Activity state
Activated
Deactivated
Timeout
0.12:00:00
Retry
0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Data Factory
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Search factory and documentation
Factory Resources
Pipelines
Copy_Customer_JSON_To_Folder
Copy_Customer_Table_To_CSV
Copy_Customer_To_JSON
Copy_ProductTable_To_CSV
Copy_Customer_To_CSV_Pipe
Datasets
ADLS_Customer_CSV_Dataset
ADLS_Customer_CSV_Pipe
ADLS_Datalake_storage_CSV_Dataset
ADLS_JSON_Dataset
SQL_Customer_Table_Dataset
SQL_Product_Table_Dataset
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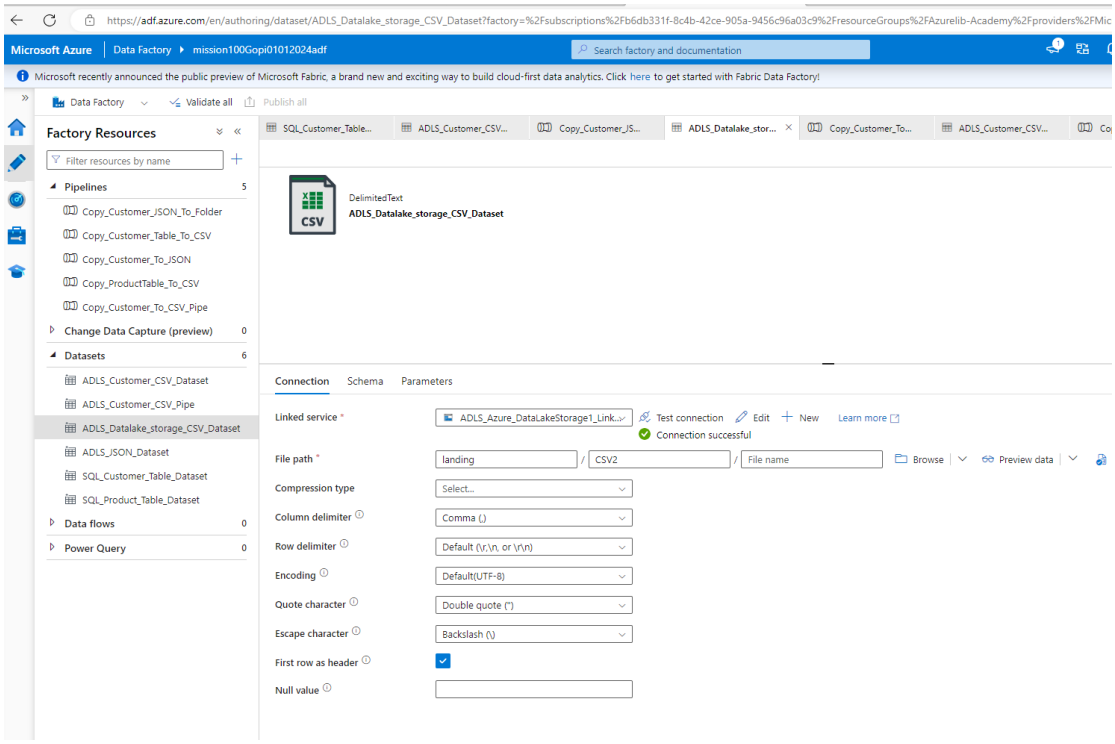
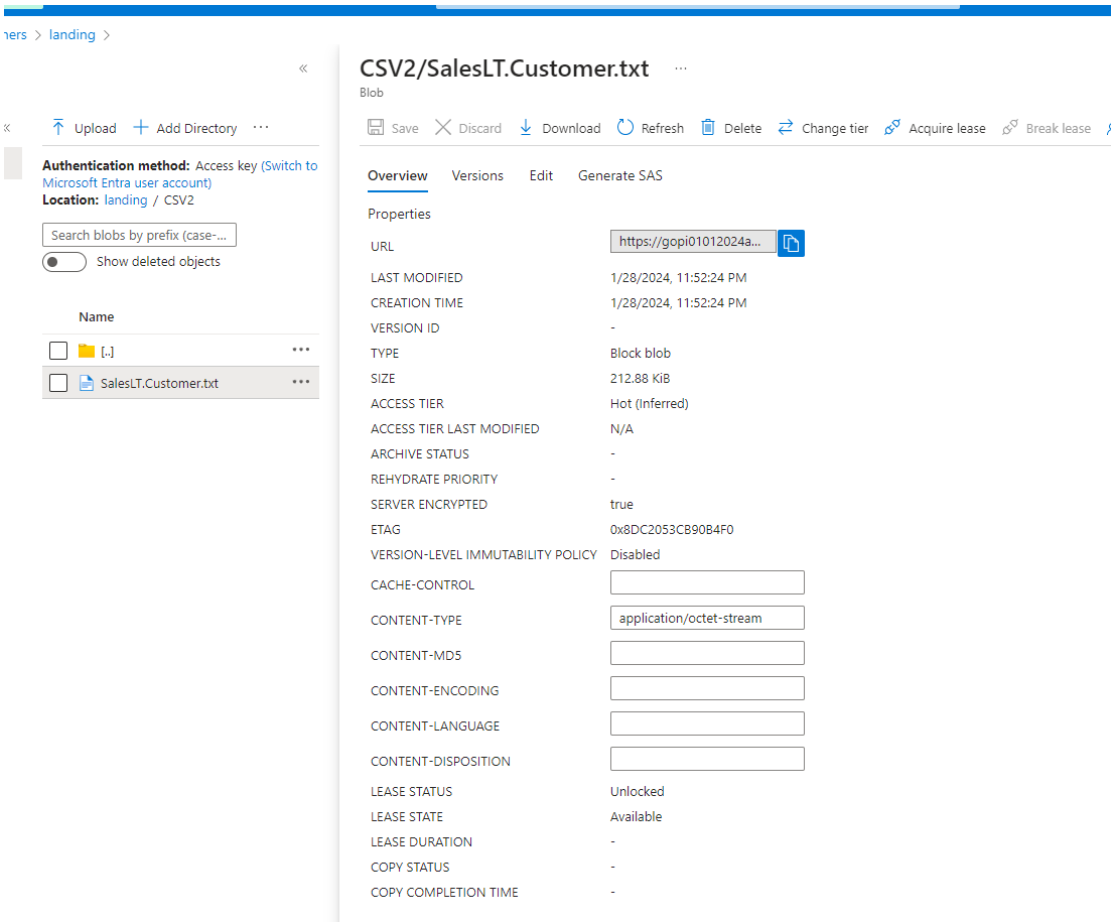
Azure Data Explorer
Azure Function
Batch Service
Databricks
Data Lake Analytics
General
HDInsight
Iteration & conditionals
Machine Learning
Power Query
Validate
Validate copy runtime
Debug
Add trigger
Copy data
Copy Customer ADLS land...
General
Source
Sink
Mapping
Settings
User properties
Source dataset
ADLS_Customer_CSV_Dataset
Open
New
Preview data
Learn more
File path type
File path in dataset
Wildcard file path
List of files
Path to file list
landing/CSV/SalesLT.Customer.txt
Browse
Enable partitions discovery
Max concurrent connections
Skip line count
Additional columns
New


Microsoft Azure
Data Factory
mission100Gopi01012024adf
Search factory and documentation
Factory Resources
Pipelines
Copy_Customer_JSON_To_Folder
Copy_Customer_Table_To_CSV
Copy_Customer_To_JSON
Copy_ProductTable_To_CSV
Copy_Customer_To_CSV_Pipe
Change Data Capture (preview)
Datasets
ADLS_Customer_CSV_Dataset
ADLS_Customer_CSV_Pipe
ADLS_Datalake_storage_CSV_Dataset
ADLS_JSON_Dataset
SQL_Customer_Table_Dataset
SQL_Product_Table_Dataset
Data flows
Power Query
DelimitedText
ADLS_Datalake_storage_CSV_Dataset
Connection
Schema
Parameters
Linked service
ADLS_Azure_DataLakeStorage1_Link...
Test connection
Edit
New
Learn more
Connection successful
File path
landing
CSV2
File name
Browse
Preview data
Compression type
Select...
Column delimiter
Comma (,)
Row delimiter
Default (\r,\n, or \r\n)
Encoding
Default(UTF-8)
Quote character
Double quote (")
Escape character
Backslash (\)
First row as header
Null value

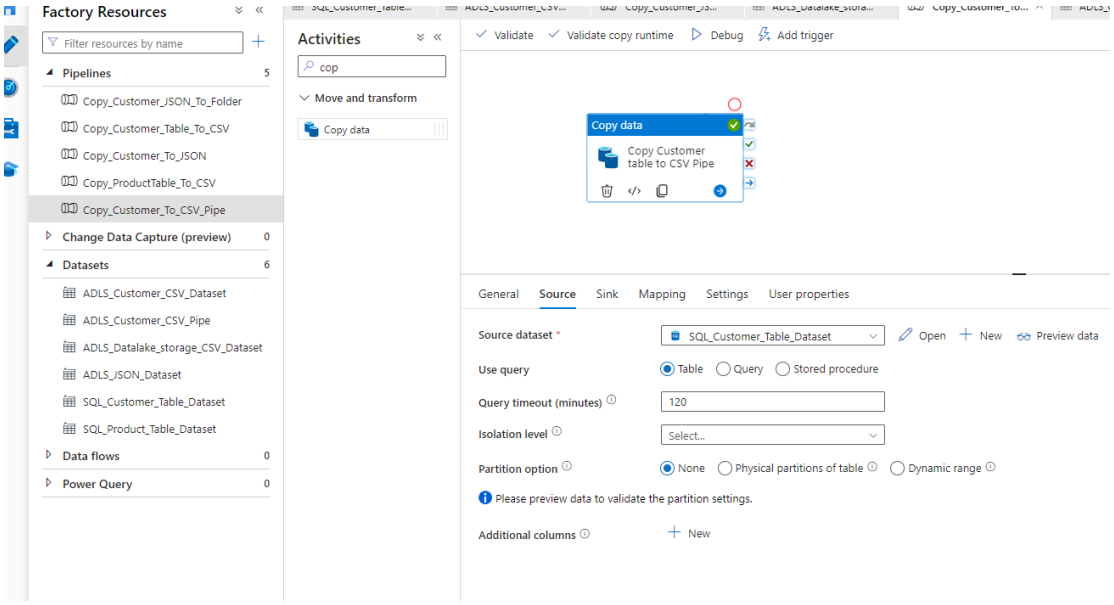

landing
Upload
Add Directory
Authentication method: Access key (Switch to Microsoft Entra user account)
Location: landing / CSV2
Search blobs by prefix (case-...
Show deleted objects
Name
[..]
SalesLT.Customer.txt
CSV2/SalesLT.Customer.txt
Blob
Save
Discard
Download
Refresh
Delete
Change tier
Acquire lease
Break lease
Overview
Versions
Edit
Generate SAS
Properties
URL
https://gopi01012024a...
LAST MODIFIED
1/28/2024, 11:52:24 PM
CREATION TIME
1/28/2024, 11:52:24 PM
VERSION ID
-
TYPE
Block blob
SIZE
212.88 KiB
ACCESS TIER
Hot (Inferred)
ACCESS TIER LAST MODIFIED
N/A
ARCHIVE STATUS
-
REHYDRATE PRIORITY
-
SERVER ENCRYPTED
true
ETAG
0x8DC2053CB90B4F0
VERSION-LEVEL IMMUTABILITY POLICY
Disabled
CACHE-CONTROL
CONTENT-TYPE
application/octet-stream
CONTENT-MD5
CONTENT-ENCODING
CONTENT-LANGUAGE
CONTENT-DISPOSITION
LEASE STATUS
Unlocked
LEASE STATE
Available
LEASE DURATION
-
COPY STATUS
-
COPY COMPLETION TIME
-

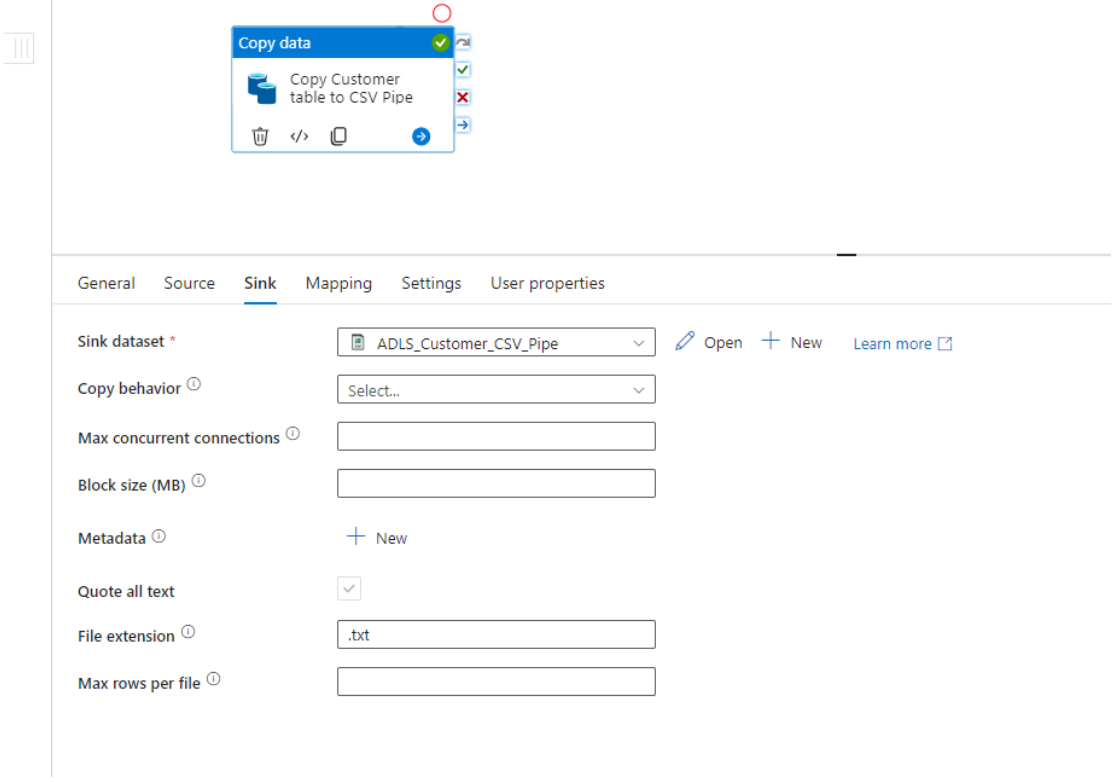
Pipleine 4:

Tough Question:

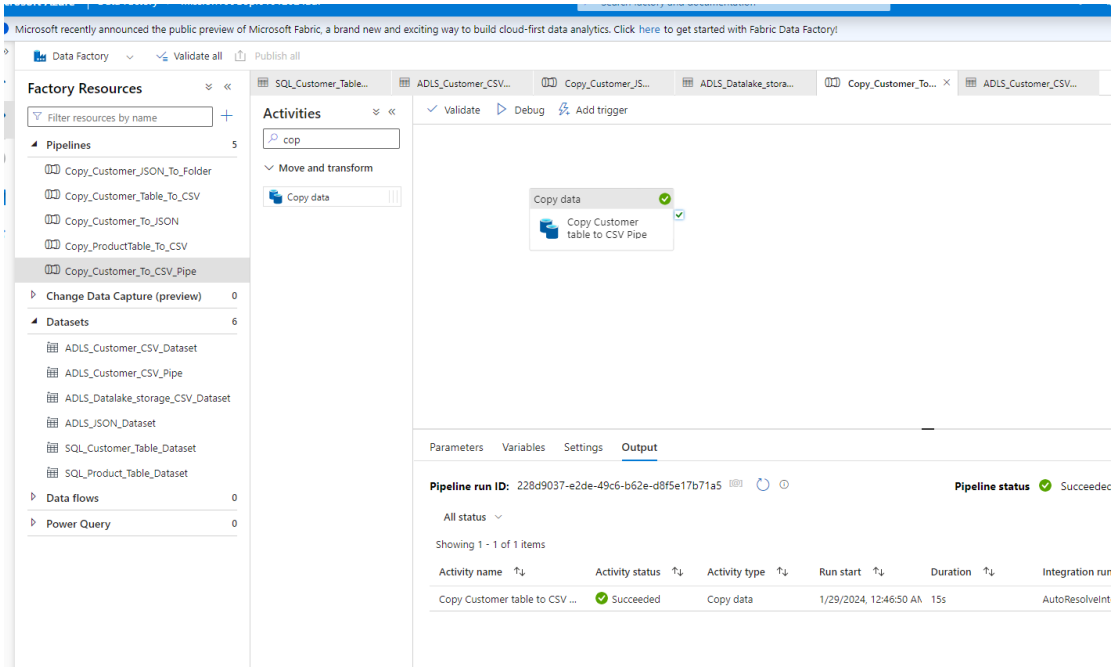
Create another pipeline name: Copy_Customer_To_CSV_Pipe In the newly created SQL DB there is one built in SalesLt.Customer table.

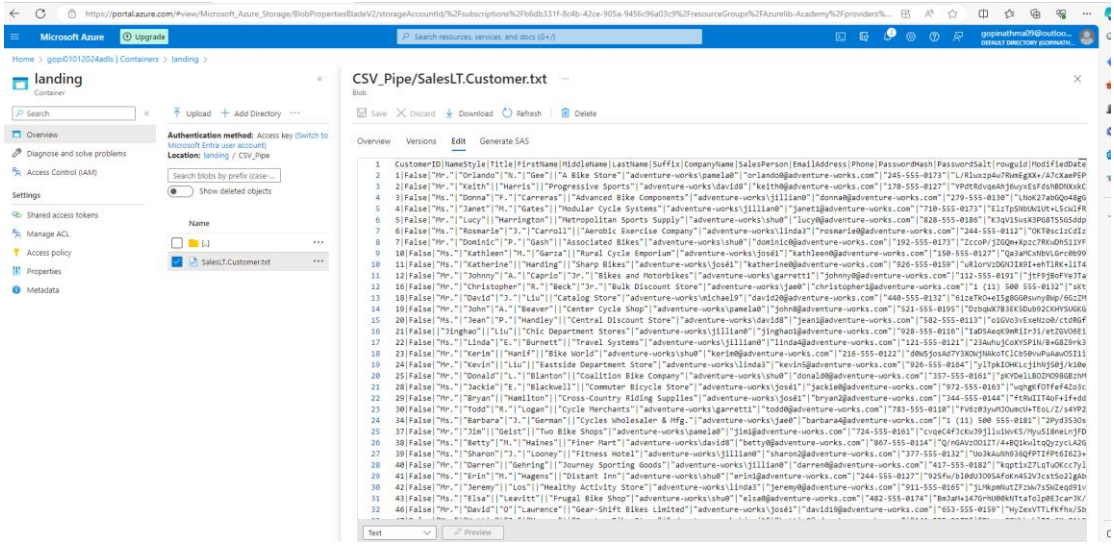
Copy the Customer table data to CSV file in 'landing/CSV_Pipe' folder in ADLS using the ADF. But **ensure that the delimiter of this file should be (|) instead of (,)**

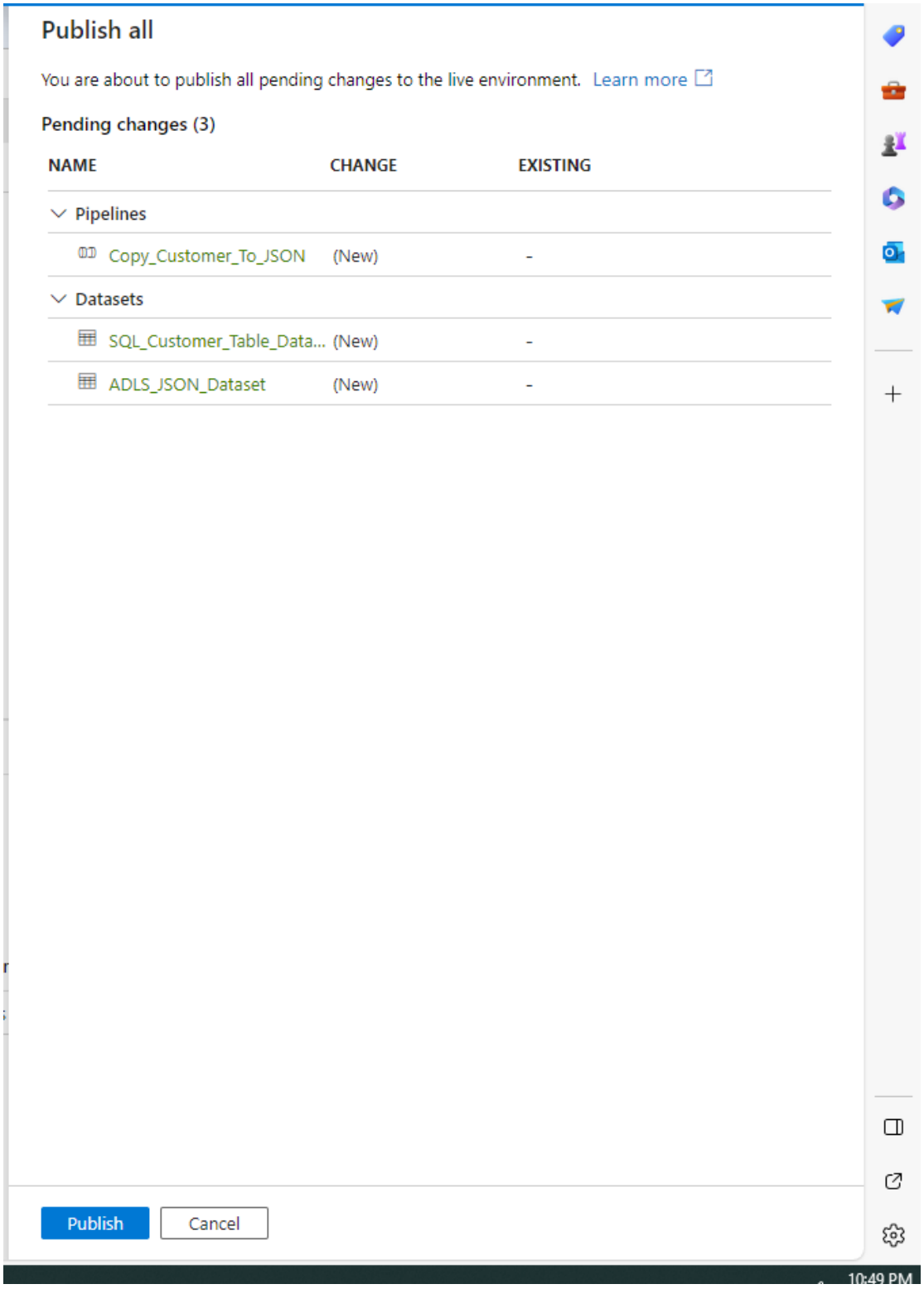

Factory Resources
Filter resources by name
Pipelines 5
Copy_Customer_JSON_To_Folder
Copy_Customer_Table_To_CSV
Copy_Customer_To_JSON
Copy_ProductTable_To_CSV
Copy_Customer_To_CSV_Pipe
Change Data Capture (preview) 0
Datasets 6
ADLS_Customer_CSV_Dataset
ADLS_Customer_CSV_Pipe
ADLS_Datalake_storage_CSV_Dataset
ADLS_JSON_Dataset
SQL_Customer_Table_Dataset
SQL_Product_Table_Dataset
Data flows 0
Power Query 0
Activities
cop
Move and transform
Copy data
Validate
Validate copy runtime
Debug
Add trigger
Copy data
Copy Customer table to CSV Pipe
General
Source
Sink
Mapping
Settings
User properties
Source dataset *
SQL_Customer_Table_Dataset
Open
New
Preview data
Use query
Table
Query
Stored procedure
Query timeout (minutes)
120
Isolation level
Select...
Partition option
None
Physical partitions of table
Dynamic range
Please preview data to validate the partition settings.
Additional columns
New

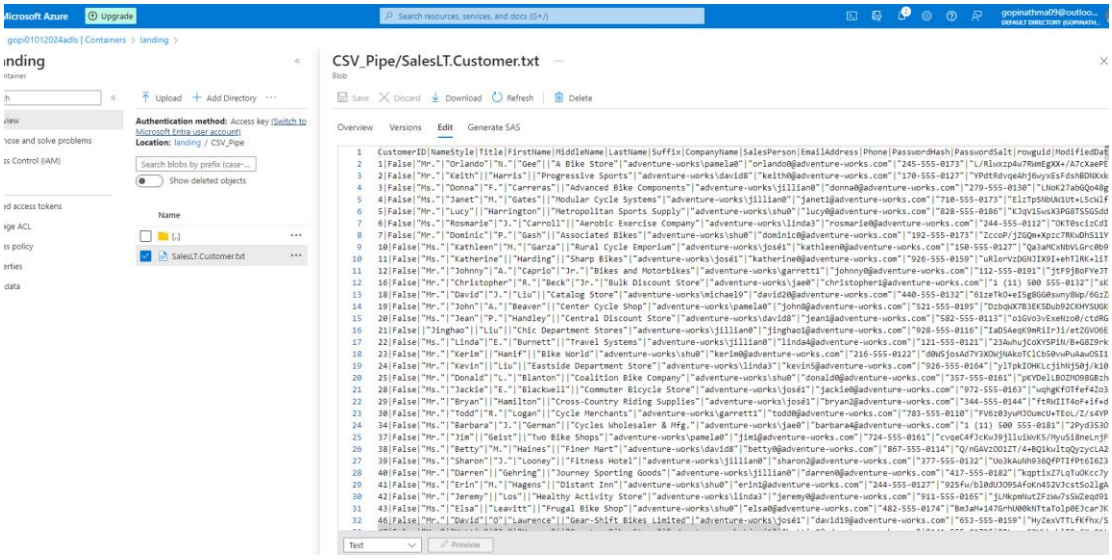

Copy data
Copy Customer table to CSV Pipe
General
Source
Sink
Mapping
Settings
User properties
Sink dataset *
ADLS_Customer_CSV_Pipe
Open
New
Learn more
Copy behavior
Select...
Max concurrent connections
Block size (MB)
Metadata
New
Quote all text
File extension
.txt
Max rows per file

S


Microsoft recently announced the public preview of Microsoft Fabric, a brand new and exciting way to build cloud-first data analytics. Click here to get started with Fabric Data Factory!
Data Factory
Validate all
Publish all
Factory Resources
Filter resources by name
Pipelines 5
Copy_Customer_JSON_To_Folder
Copy_Customer_Table_To_CSV
Copy_Customer_To_JSON
Copy_ProductTable_To_CSV
Copy_Customer_To_CSV_Pipe
Change Data Capture (preview) 0
Datasets 6
ADLS_Customer_CSV_Dataset
ADLS_Customer_CSV_Pipe
ADLS_Datalake_storage_CSV_Dataset
ADLS_JSON_Dataset
SQL_Customer_Table_Dataset
SQL_Product_Table_Dataset
Data flows 0
Power Query 0
Activities
cop
Move and transform
Copy data
SQL_Customer_Table...
ADLS_Customer_CSV...
Copy_Customer_JS...
ADLS_Datalake_stora...
Copy_Customer_To...
ADLS_Customer_CSV...
Validate
Debug
Add trigger
Copy data
Copy Customer table to CSV Pipe
Parameters
Variables
Settings
Output
Pipeline run ID: 228d9037-e2de-49c6-b62e-d8f5e17b71a5
Pipeline status Succeeded
All status
Showing 1 - 1 of 1 items
Activity name
Activity status
Activity type
Run start
Duration
Integration run
Copy Customer table to CSV ...
Succeeded
Copy data
1/29/2024, 12:46:50 AM
15s
AutoResolveInt


Microsoft Azure
Upgrade
landing
Container
Upload
Add Directory
Overview
Diagnose and solve problems
Access Control (IAM)
Settings
Shared access tokens
Manage ACL
Access policy
Properties
Metadata
Authentication method: Access key (Switch to Microsoft Entra user account)
Location: landing / CSV_Pipe
Search blobs by prefix (case-...
Show deleted objects
Name
[..]
SalesLT.Customer.txt
CSV_Pipe/SalesLT.Customer.txt
Blob
Save
Discard
Download
Refresh
Delete
Overview
Versions
Edit
Generate SAS
Text
Preview


Publish all
You are about to publish all pending changes to the live environment. Learn more
Pending changes (3)
NAME
CHANGE
EXISTING
Pipelines
Copy_Customer_To_JSON
(New)
-
Datasets
SQL_Customer_Table_Data...
(New)
-
ADLS_JSON_Dataset
(New)
-
Publish
Cancel
10:49 PM


Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
gopinathma09@outloo...
DEFAULT DIRECTORY (GOPINATH...
gopi01012024adls | Containers > landing >
nding
ntainer
Upload
Add Directory
Authentication method: Access key (Switch to Microsoft Entra user account)
Location: landing / CSV_Pipe
Search blobs by prefix (case-...
Show deleted objects
Name
[..]
SalesLT.Customer.txt
CSV_Pipe/SalesLT.Customer.txt
Blob
Save
Discard
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Versions
Edit
Generate SAS
Text
Preview