05/09/2023

Azure Storage Types
Access and Authentication
Azure Active Directory (Azure AD) Integration, Shared Access Signatures (SAS)
Role-Based Access Control (RBAC), Access Control Lists (ACLs)
Virtual Network Service Endpoints, Private Endpoints (Preview)
Azure Data Factory
ETL v/s ELT
Datasets, Integration Runtime
Parameters, System Variables
Data Flows, Linked Services
Triggers, Activities, Debugging and Monitoring
Pipeline, Pipeline Chaining

Azure Active Directory Integration for authorizing access to blob, queue and table resources.
Microsoft recommends using Azure AD credentials to authorize requests to data when possible
for optimal security and ease of use.
We can use Azure role-based access control to manage a security principal permission to blob,
queue and table resources in the storage account.

Access Keys and SAS (pdf)

ETL - Extract, Transforms, & Load
ELT - Extract, Load, & Transform

Azure Data Factory

Create Data Factory ...

Basics   Git configuration   Networking   Advanced   Tags   Review + create

One-click to create data factory with sample pipeline and datasets. Try it

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

npunext-1680261963256

Resource group * ⓘ

(New) azurerg

Create new

Instance details

Name * ⓘ

juhi-datafactory

Region * ⓘ

East US

Version * ⓘ

V2

Previous   Next   Review + create

Give feedback

Create Data Factory ...

Basics   Git configuration   Networking   Advanced   Tags   **Review + create**

👁 View automation template

TERMS

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; and (b) 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. See the Azure Marketplace Terms for additional details.

Basics

Subscription	npunext-1680261963256
Resource group	azurerg
Name	juhi-datafactory
Region	East US
Version	V2

Previous   Next   Create

Create a storage account ...

Resource group *

azurerg ▾

Create new

Instance details

Storage account name ⓘ *

juhistorage7

Region ⓘ *

(US) East US ▾

Deploy to an edge zone

Performance ⓘ *

◉ **Standard:** Recommended for most scenarios (general-purpose v2 account)

◯ **Premium:** Recommended for scenarios that require low latency.

Redundancy ⓘ *

Geo-redundant storage (GRS) ▾

Review   < Previous   Next : Advanced >

Create a storage account ...

Basics

Subscription	npunext-1680261963256
Resource Group	azurerg
Location	eastus
Storage account name	juhistorage7
Deployment model	Resource manager
Performance	Standard
Replication	Read-access geo-redundant storage (RA-GRS)

Advanced

Enable hierarchical namespace	Disabled
Enable network file system v3	Disabled
Allow cross-tenant replication	Disabled

Create   < Previous   Next >   Download a template for automation

Home > juhistorage7 | Containers >

demo ...
Container

Search

- 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 snapshots | ...

Authentication method: Access key (Switch to Azure AD User Account)
Location: demo

Search blobs by prefix (case-sensitive)   Show deleted blobs

+ Add filter

Name	Modified	Access tier	Archive status	Blob type
☐ Std_details.csv	9/5/2023, 1:43:15 PM	Hot (Inferred)		Block blob

Home > azurerg >

juhi-datafactory 📌 ☆ ...
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

🗑 Delete

∧ Essentials   JSON View

Resource group (move)   Type
azurerg   Data factory (V2)

Status   Getting started
Succeeded   Quick start

Location
East US

Subscription (move)
npunext-1680261963256

Subscription ID
8611f143-8cf4-47cb-b7d4-8b18969153e1

Azure Data Factory Studio
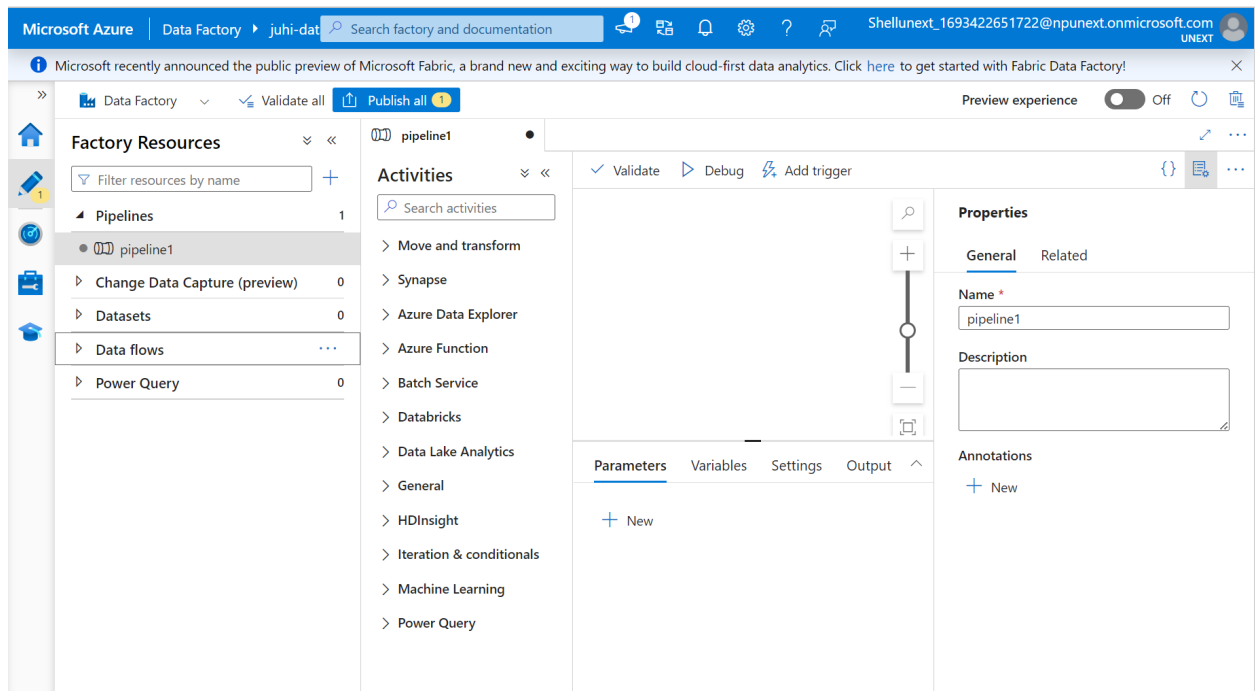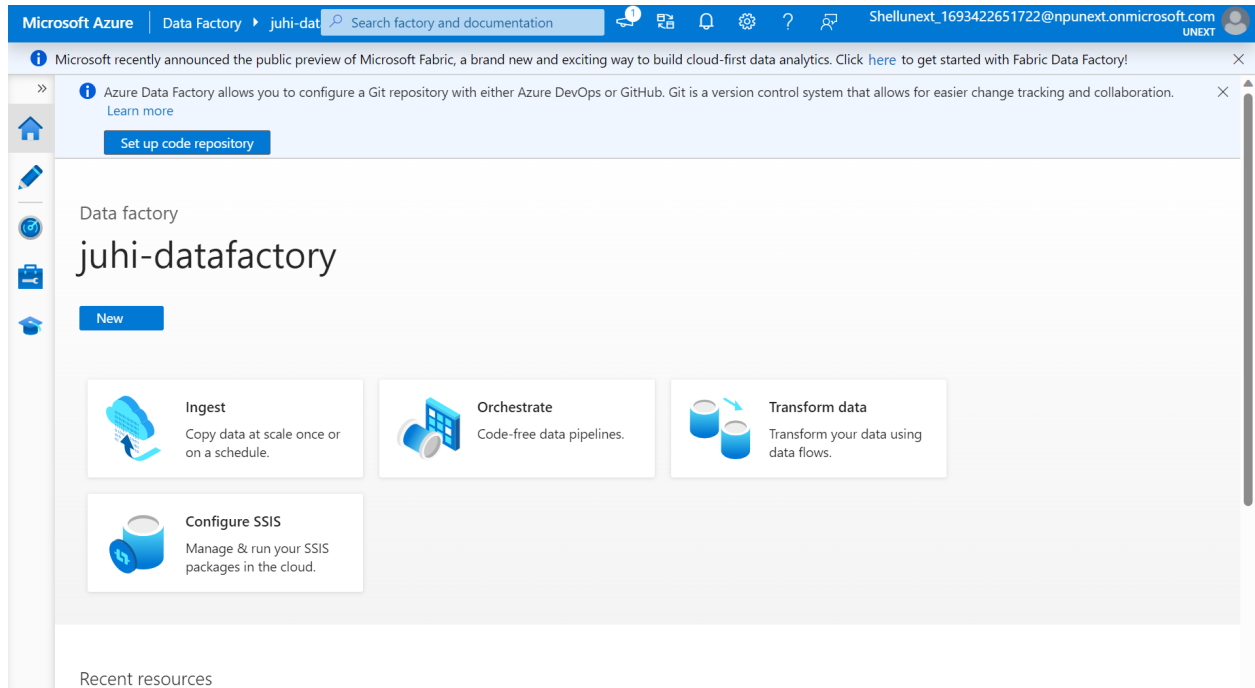
Launch studio

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 ②

Preview experience ⬤ Off

Factory Resources

Filter resources by name

▲ Pipelines — 1
　● ▥ pipeline1
▸ Change Data Capture (preview) — 0
▸ Datasets — 0
▲ Data flows — 1
　● ▨ dataflow1
▸ Power Query — 0

pipeline1 ● | ▨ dataflow1 ●

✓ Validate | ⬤ Data flow debug

source1
Columns:
0 total

Add Source ▾

Source settings | Source options | Projection | ⋯

↻ Reset

Source type *

| Dataset | Inline |

Dataset * Select... ▾

＋ New

Options ☑ Allow schema drift ⓘ

Properties

General | Related

Name *
dataflow1

Description

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Factory Resources

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▸ Datasets — 0
▲ Data flows — 1
　● ▨ dataflow1
▸ Power Query — 0

pipeline1 ● | ▨ dataflow1 ●

✓ Validate | ⬤ Data flow debug

source1
Columns:
0 total

Add Source ▾

Search

Multiple inputs/outputs

⮥ Join
◧ Conditional Split
◈ Exists
⊎ Union
▥ Lookup

Schema modifier

▸ Derived Column
▦ Select
Σ Aggregate
▦ Surrogate Key
▥ Pivot

Source settings | Source opti...

↻ Reset

Source type *

Dataset *

＋ New

Options

Properties

General | Related

Name *
dataflow1

Description

ⓘ Microsoft recently announced the public preview of Microsoft Fabric, a brand new and exciting

🏭 Data Factory | ✓ Validate all | 📤 Publish all 4

Factory Resources

🔍 Filter resources by name

▲ Pipelines 1
  ● ▭ adfpipeline
▷ Change Data Capture (preview) 0
▷ Datasets 2
▲ Data flows 1
  ● 🔀 dataflow1
▷ Power Query 0

▭ adfpipeline ●   🔀 dataf

✓ Validate   ⬤ Data flow debug

source1

Columns:
4 total

Add Source ▼

Source settings | Source options

Description

Source type *

Dataset *

Options

Set properties

Name

DelimitedText3

Linked service *

AzureBlobStorage1 ▼ ✏️

File path

demo / Directory / Std_details.csv 📁 ▼

First row as header ☑

Import schema

⦿ From connection/store ○ From sample file ○ None

▷ Advanced

OK | Back | Cancel

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🏭 Data Factory | ✓ Validate all | 📤 Publish all 3   Preview experience ⬤ Off ↻ 🗑

Factory Resources

🔍 Filter resources by name

▲ Pipelines 1
  ● ▭ pipeline1
▷ Change Data Capture (preview) 0
▷ Datasets 1
▲ Data flows 1
  ● 🔀 dataflow1
▷ Power Query 0

▭ pipeline1 ●   🔀 dataflow1 ●

✓ Validate   ⬤ Data flow debug

source1

Columns:
4 total

Add Source ▼

🔍
➕
━
⊡

Source settings | Source options | Projection | ⋯   ⌃

Source type *

| 📊 Dataset | ▨ Inline |

Dataset *   [📄 DelimitedText1 ▼]

🔗 Test connection   ✏️ Open   ➕ New

Options   ☑ Allow schema drift ⓘ
           ☐ Infer drifted column types ⓘ

Properties

General | Related

Name *

dataflow1

Description

ⓘ Microsoft recently announced the public preview of Microsoft Fabric, a brand new and exciting

Data Factory ▾ | ✓≡ Validate all | ⬆ Publish all ④

Factory Resources ≫ ≪ | ⊞ adfpipeline ● | 🔗 datafl

🔍 Filter resources by name ➕ | ✓ Validate ◯ Data flow debug

◢ Pipelines 1
● ⊞ adfpipeline
▶ Change Data Capture (preview) 0
▶ Datasets 2
◢ Data flows 1
● 🔗 dataflow1
▶ Power Query 0

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

Amazon S3	Azure Blob Storage	Azure Cosmos DB for NoSQL
Azure Data Explorer (Kusto)	Azure Data Lake Storage Gen1	Azure Data Lake Storage Gen2

source1

Import data from
DelimitedText1

➕

Sink   Settings   Errors   Mappi

Output stream name *

Description

Incoming stream *

Sink type *

Dataset *

Continue | Cancel

Set properties

Name

DelimitedText3

Linked service *

AzureBlobStorage3 ▾ ✏

File path

| target | / | Directory | / | Std_details_target.csv | 📁 | ▾ |

First row as header ☑

Import schema

◉ From connection/store   ◯ From sample file   ◯ None

▸ Advanced

source1

Import data from
DelimitedText1

➕

Sink   Settings   Errors   Mappi

Incoming stream *

Sink type *

Dataset *

Options

OK | Back | Cancel

Microsoft recently announced the public preview of Microsoft Fabric, a brand new and exciting

Data Factory | Validate all | Publishing 5

Validate | Data flow debug

Publish all

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

Pending changes (5)

NAME	CHANGE	EXISTING
∨ Pipelines		
adfpipeline	(New)	-
∨ Datasets		
DelimitedText1	(New)	-
DelimitedText3	(New)	-
DelimitedText2	(New)	-
∨ Data flows		
dataflow1	(New)	-

Factory Resources

Filter resources by name

- ◢ Pipelines — 1
  - adfpipeline
- ▹ Change Data Capture (preview) — 0
- ▹ Datasets — 3
- ◢ Data flows — 1
  - dataflow1
- ▹ Power Query — 0

source1
Import data from DelimitedText1

Sink Settings Errors Mappi

Output stream name *
Description
Incoming stream *
Sink type *
Dataset *

Publish Cancel

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Data Factory | Validate all | Publish all

✓ Publishing completed
Successfully published

Validate | Data flow debug

Factory Resources

Filter resources by name

- ◢ Pipelines — 1
  - adfpipeline
- ▹ Change Data Capture (preview) — 0
- ▹ Datasets — 3
- ◢ Data flows — 1
  - dataflow1
- ▹ Power Query — 0

adfpipeline | dataflow1

source1
Import data from DelimitedText1

sink1
Columns: 4 total

Sink Settings Errors Mapping Optimize Inspect Data preview

Output stream name *   sink1   Learn more
Description   Export data to DelimitedText3   ↻ Reset

Incoming stream *   source1
Sink type *   Dataset | Inline | Cache
Dataset *   DelimitedText3   Test connection Open + New

ⓘ 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! ✕

Pipeline runs

Triggered Debug   ⟳ Rerun ⊘ Cancel options ⌄   ⟳ Refresh   ≡ Edit columns | List | Gantt |

⌕ Filter by run ID or name   Chennai, Kolkata, Mu... : **Last 24 hours**   Pipeline name : **All**   📋 Copy filters   ⬇ Export to CSV ⌄

Status : **All**   Runs : Latest runs   Triggered by : **All**   🔽 Add filter ✕

Showing **1 - 1** items   Last refreshed 0 minutes ago

eline name ↑↓	Run start ↑↓	Run end ↑↓	Duration	Triggered by	Status ↑↓
pipeline ⊘ 🚫	9/5/2023, 2:25:44 PM	--	31s	Manual trigger	⟳ In progres

◄ ──────────────── ►

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Pipeline runs

Triggered Debug   ⟳ Rerun ⊘ Cancel options ⌄   ⟳ Refresh   ≡ Edit columns | List | Gantt |

⌕ Filter by run ID or name   Chennai, Kolkata, Mu... : **Last 24 hours**   Pipeline name : **All**   📋 Copy filters   ⬇ Export to CSV ⌄

Status : **All**   Runs : Latest runs   Triggered by : **All**   🔽 Add filter ✕

Showing **1 - 1** items   Last refreshed 0 minutes ago

e name ↑↓	Run start ↑↓	Run end ↑↓	Duration	Triggered by	Status ↑↓
line	9/5/2023, 2:25:44 PM	9/5/2023, 2:29:15 PM	3m 31s	Manual trigger	✅ Succeeded

Sidebar (both screens):
- Dashboards
- Runs
  - Pipeline runs
  - Trigger runs
  - Change Data Capture (previ...)
- Runtimes & sessions
  - Integration runtimes
  - Data flow debug
- Notifications
  - Alerts & metrics

Puzzle answer:

1. Data Integration
2. Complex
3. Pipeline
4. Dataset
5. Trigger
6. Parameters
7. System variables
8. ETL and ELT
9. Pipeline
10. Pipelines