

SCENARIO 3: Copy Blob Storage Data to MySQL using ADF

◆ Objective:

- Move CSV file contents from Blob Storage to MySQL Products table using Azure Data Factory.

💡 Architecture:

Azure Blob (sample.csv)



Azure Data Factory Pipeline



Azure SQL/MySQL Table (Products)

🛠 Steps:

1. Blob Storage Setup

- Create a **Storage Account** in Azure

The screenshot shows the Azure Storage center interface for managing storage accounts. The main pane displays the properties of the 'mypocanalytics' storage account, which is part of the 'POC-Analytics' resource group. Key details include:

- Location:** centralindia
- Subscription:** Azure subscription 1
- Subscription ID:** 2ea6768b-40fb-4dc6-b57a-1167dbca6206
- Disk state:** Available
- Tags:** Add tags

The 'Properties' tab is selected, showing sections for **Blob service**, **Security**, and **Networking**. In the Blob service section, settings like Hierarchical namespace (Disabled), Default access tier (Hot), and Blob anonymous access (Enabled) are listed. The Security section includes options for REST API operations and account key access. The Networking section shows Public network access set to Enabled from all networks.

- Create a **Container** named raw

- o Upload sample.csv

Property	Value
URL	https://mynpcanalytics.blob.core.windows.net/raw/sample.csv
LAST MODIFIED	8/28/2025, 4:12:50 PM
CREATION TIME	8/28/2025, 4:12:50 PM
VERSION ID	-
TYPE	Block blob
SIZE	32 B
ACCESS TIER	Hot (Inferred)
ACCESS TIER LAST MODIFIED	N/A
ARCHIVE STATUS	-
REHYDRATE PRIORITY	-
SERVER ENCRYPTED	true
ETAG	0x8DDE61FA2D5A128
VERSION-LEVEL IMMUTABILITY POLICY	Disabled
CACHE-CONTROL	
CONTENT-TYPE	text/csv
CONTENT-MDS	v9IYv1Ujh0r69QXNTlk2AQ==
CONTENT-ENCODING	
CONTENT-LANGUAGE	

- o Contents of Sample.csv

A	B	C
ID	Name	Price
3	laptop	60000

2. Azure SQL/MySQL Setup

- **Create SQL Server and Allow Required Firewall settings**

server-mysql | Networking

Allow certain public internet IP addresses to access your resource. [Learn more](#)

Rule name	Start IPv4 address	End IPv4 address
ClientIPAddress	135.235.193.195	135.235.193.195
Firewall	10.0.1.4	10.0.1.4
myip	192.168.1.40	192.168.1.40
query-editor-5696b7	103.77.153.227	103.77.153.227
query-editor-7ce433	103.215.114.63	103.215.114.63
query-editor-c40d0e	103.215.114.34	103.215.114.34
query-editor-ed8161	103.215.114.79	103.215.114.79

Exceptions

Allow Azure services and resources to access this server [\(?\)](#)

- **Create SQL Database – pocdb**

pocdb (server-mysql/pocdb)

SQL database

Overview

Essentials

Resource group (...	: POC-Analytics	Server name	: server-mysql.database.windows.net
Status	: Online	Elastic pool	: No elastic pool
Location	: Central India	Connection strings	: Show database connection strings
Subscription (move)	: Azure subscription 1	Pricing tier	: Basic
Subscription ID	: 2ea6768b-40fb-4dc6-b57a-1167dbca6206	Earliest restore point	: 2025-08-28 11:25 UTC

Monitoring

Database data storage

Review the below metrics and monitor your applications and infrastructure.

- **Login to SQL Database – pocdb**

The screenshot shows the Azure SQL Database Query editor (preview) interface. On the left, there's a sidebar with various database management options like Overview, Activity log, Tags, Diagnose and solve problems, and Query editor (preview). The Query editor (preview) option is selected. The main area has a large 'SQL' icon and the text 'Welcome to SQL Database Query Editor'. It shows two authentication methods: 'SQL server authentication' (Login: sheetal, Password: redacted) and 'Microsoft Entra authentication' (Continue as sheetalsarvade12@gmail.com...). There's also an 'OR' button and an 'OK' button.

- **Create Table named Products**

The screenshot shows the Azure SQL Database Query editor (preview) interface. The sidebar is identical to the previous one. The main area shows the object explorer on the left with 'Tables' expanded, showing 'dbo.ProcessedData' and 'dbo.Products'. 'dbo.Products' is selected. On the right, there's a table named 'dbo.Products' with two rows of data:

ID	Name	Price
1	Laptop	999.99
2	Mouse	19.99

3. Azure Data Factory

- Create linked services:
 - Azure Blob Storage

- **Azure SQL/MySQL**

- **Create dataset for source (sample.csv)**

- **Create dataset for sink (MySQL table)**

AzureSqlTableProducts

Connection Schema Parameters

Linked service * AzureSqlDatabase1 Test connection Edit New Learn more

Table dbo.Products Refresh Preview data Enter manually

- Build and trigger a **Copy Data pipeline**

- **Create Pipeline**

Factory Resources << >>

Filter resources by name +

Pipelines 1

CopyCsvToSql

Change Data Capture (preview) 0

Datasets 2

Copy data

Copy data1

- Configure Pipeline – Source , Sink , Mapping

CopyCsvToSql

Validate Validate copy runtime Debug Add trigger

Copy data

Copy data1

General Source Sink Mapping Settings User properties

Source dataset * DelimitedText1

Open New Preview data Learn more

File path type File path in dataset Prefix Wildcard file path List of files

Start time (UTC)

End time (UTC)

CopyCsvToSql

✓ Validate ✓ Validate copy runtime ▶ Debug ⚡ Add trigger

Copy data

Copy data1

Sink

Sink dataset * AzureSqlTableProducts

Write behavior Insert

Bulk insert table lock Yes

Table option Use existing

General Source Sink Mapping Settings User properties

CopyCsvToSql

✓ Validate ✓ Validate copy runtime ▶ Debug ⚡ Add trigger

Copy data

Copy data1

General Source Sink Mapping Settings User properties

Source	Type	Destination	Type
ID	String	ID	int
Name	String	Name	nvarchar
Price	String	Price	decimal

Add dynamic content [Alt+Shift+D]

Run the Pipeline

All pipeline runs >  CopyCsvToSql - Pipeline runs > CopyCsvToSql - Activity runs

Rerun Cancel Refresh Update pipeline List Gantt

Copy data  
Copy data1 

Activity runs

Pipeline run ID 38f2b3d9-e49b-430d-9682-eb22d27c249b

All status ▾ Monitor in Azure Metrics Export to CSV ▾

Showing 1 - 1 items

Activity name ↑↓	Activity st... ↑↓	Activit... ↑↓	Run start ↑↓	Duration ↑↓	Integration runtime ↑↓
Copy data1	 Succeeded	Copy data	9/4/2025, 5:09:05 PM	15s	AutoResolveIntegrationRuntime (Central India)

Before pipeline Execution

Query 1 × dbo.Products ×

Create New Row Save Refresh Discard Delete Row

Search to filter items...

ID	Name	Price
1	Laptop	999.99
2	Mouse	19.99

After Pipeline Execution

Query 1 ×

dbo.Products ×

 Create New Row  Save  Refresh  Discard  Delete Row

 Search to filter items...

ID	Name	Price
1	Laptop	999.99
2	Mouse	19.99
3	laptop	60000.00