

P3: Team 4

Team members:

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Topic: Cryptocurrency Price Prediction

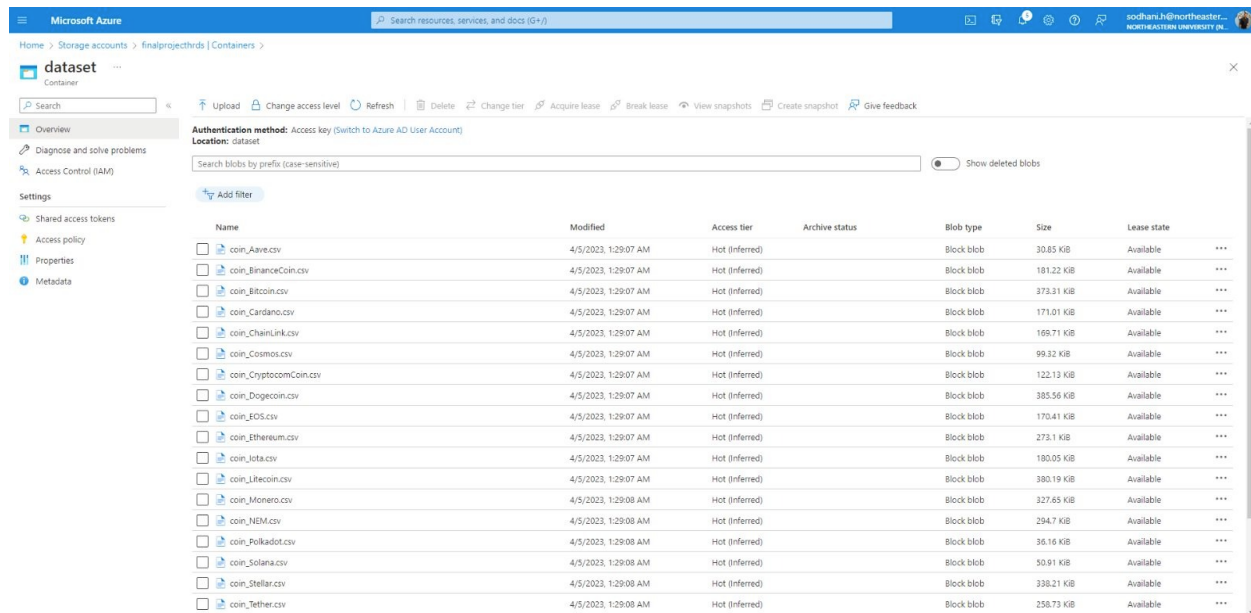
Data Model: Document (NewSQL)

Target Platform: Azure SQL Multi-Model

Tools used: Azure Blob Storage, Azure Data Factory, Azure SQL Server

The steps we followed to load data from Azure Blob Storage to Azure SQL Server using Azure Data Factory:

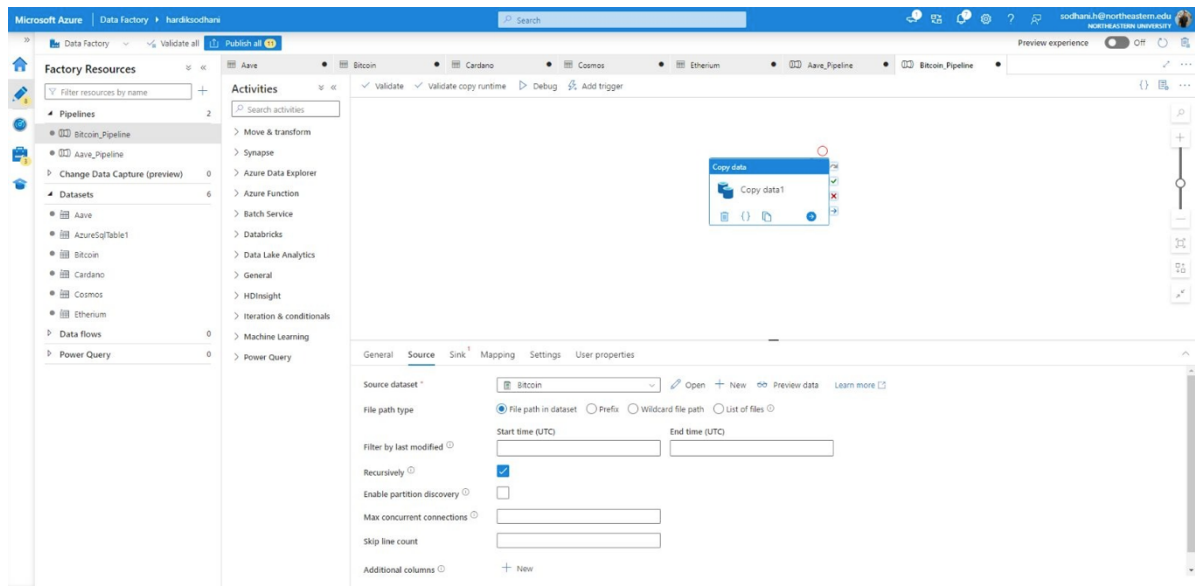
1. Created an Azure Blob Storage account and uploaded our data to the account in csv. format.
2. Navigated to the Azure portal and created a new Azure SQL Database and server.
3. Created a Linked Service in Azure Data Factory
4. Created a Dataset in Azure Data Factory



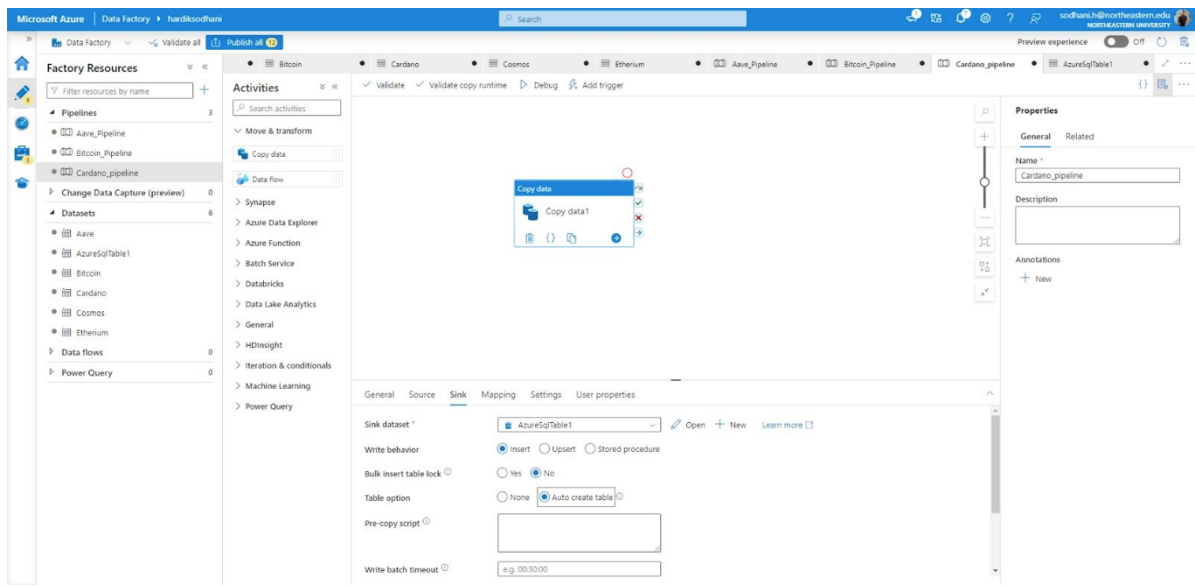
The screenshot shows the Microsoft Azure portal interface. At the top, there's a navigation bar with the Microsoft Azure logo and a search bar. Below the navigation bar, the breadcrumb trail indicates the location: Home > Storage accounts > finalprojecthds | Containers >. The main content area displays a 'dataset' container. On the left, there's a sidebar with navigation options: Overview, Diagnose and solve problems, Access Control (IAM), Settings, Shared access tokens, Access policy, Properties, and Metadata. The main area shows a table of blobs with columns: Name, Modified, Access tier, Archive status, Blob type, Size, and Lease state. The table lists 20 CSV files, all with a 'Hot (Inferred)' access tier and 'Available' lease state. The files are named with various cryptocurrency symbols followed by '.csv'.

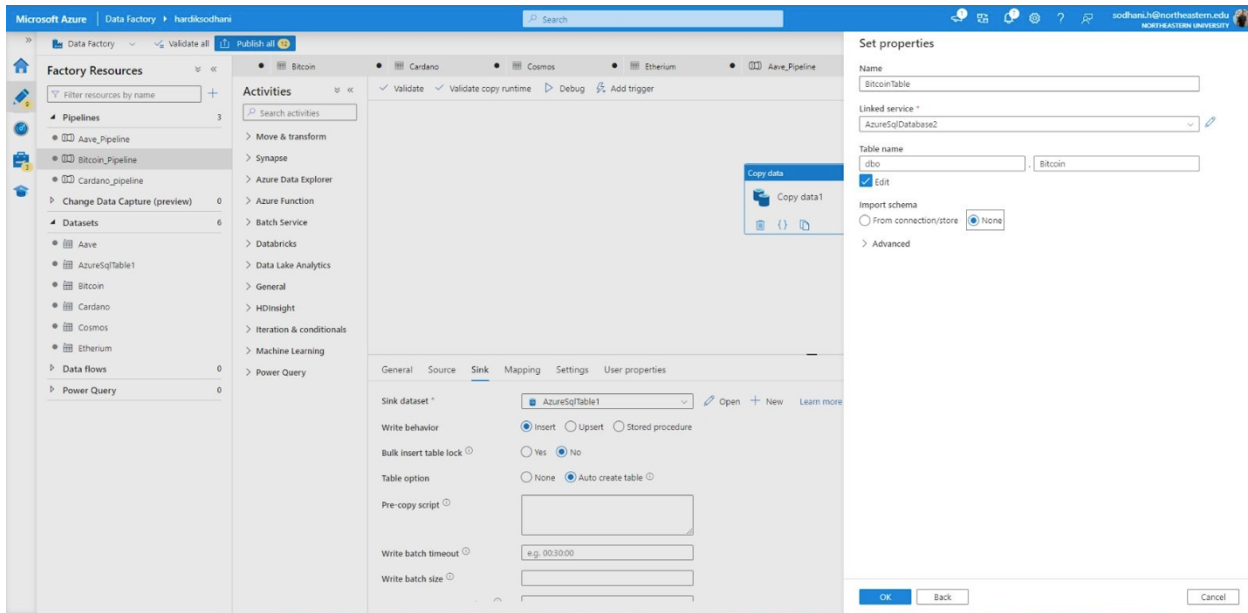
Name	Modified	Access tier	Archive status	Blob type	Size	Lease state
coin_Aave.csv	4/5/2023, 1:29:07 AM	Hot (Inferred)		Block blob	30.85 KiB	Available
coin_BinanceCoin.csv	4/5/2023, 1:29:07 AM	Hot (Inferred)		Block blob	181.22 KiB	Available
coin_Bitcoin.csv	4/5/2023, 1:29:07 AM	Hot (Inferred)		Block blob	373.31 KiB	Available
coin_Cardano.csv	4/5/2023, 1:29:07 AM	Hot (Inferred)		Block blob	171.01 KiB	Available
coin_ChainLink.csv	4/5/2023, 1:29:07 AM	Hot (Inferred)		Block blob	169.71 KiB	Available
coin_Cosmos.csv	4/5/2023, 1:29:07 AM	Hot (Inferred)		Block blob	99.32 KiB	Available
coin_CryptocomCoin.csv	4/5/2023, 1:29:07 AM	Hot (Inferred)		Block blob	122.13 KiB	Available
coin_Dogecoin.csv	4/5/2023, 1:29:07 AM	Hot (Inferred)		Block blob	385.56 KiB	Available
coin_EOS.csv	4/5/2023, 1:29:07 AM	Hot (Inferred)		Block blob	170.41 KiB	Available
coin_Ethereum.csv	4/5/2023, 1:29:07 AM	Hot (Inferred)		Block blob	273.1 KiB	Available
coin_Iota.csv	4/5/2023, 1:29:07 AM	Hot (Inferred)		Block blob	180.05 KiB	Available
coin_Litecoin.csv	4/5/2023, 1:29:07 AM	Hot (Inferred)		Block blob	380.19 KiB	Available
coin_Monero.csv	4/5/2023, 1:29:08 AM	Hot (Inferred)		Block blob	327.65 KiB	Available
coin_NEM.csv	4/5/2023, 1:29:08 AM	Hot (Inferred)		Block blob	294.7 KiB	Available
coin_Polkadot.csv	4/5/2023, 1:29:08 AM	Hot (Inferred)		Block blob	36.16 KiB	Available
coin_Solana.csv	4/5/2023, 1:29:08 AM	Hot (Inferred)		Block blob	50.91 KiB	Available
coin_Stellar.csv	4/5/2023, 1:29:08 AM	Hot (Inferred)		Block blob	338.21 KiB	Available
coin_Tether.csv	4/5/2023, 1:29:08 AM	Hot (Inferred)		Block blob	258.73 KiB	Available

- 5. Created a Pipeline in Azure Data Factory.
- 6. Added a "Copy Data" activity to the Pipeline.

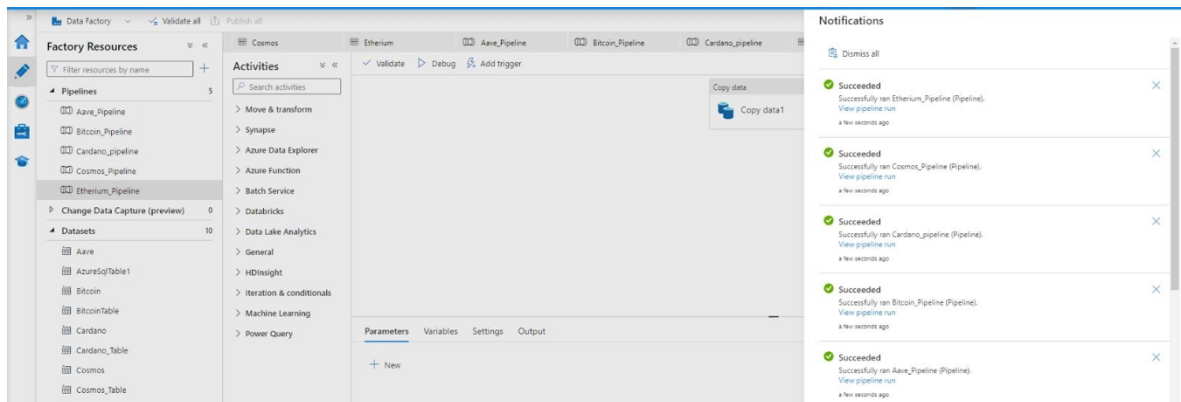


- 7. Set the sink to the Azure SQL Database we created.

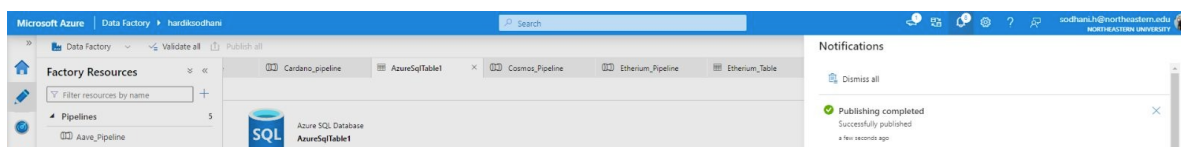




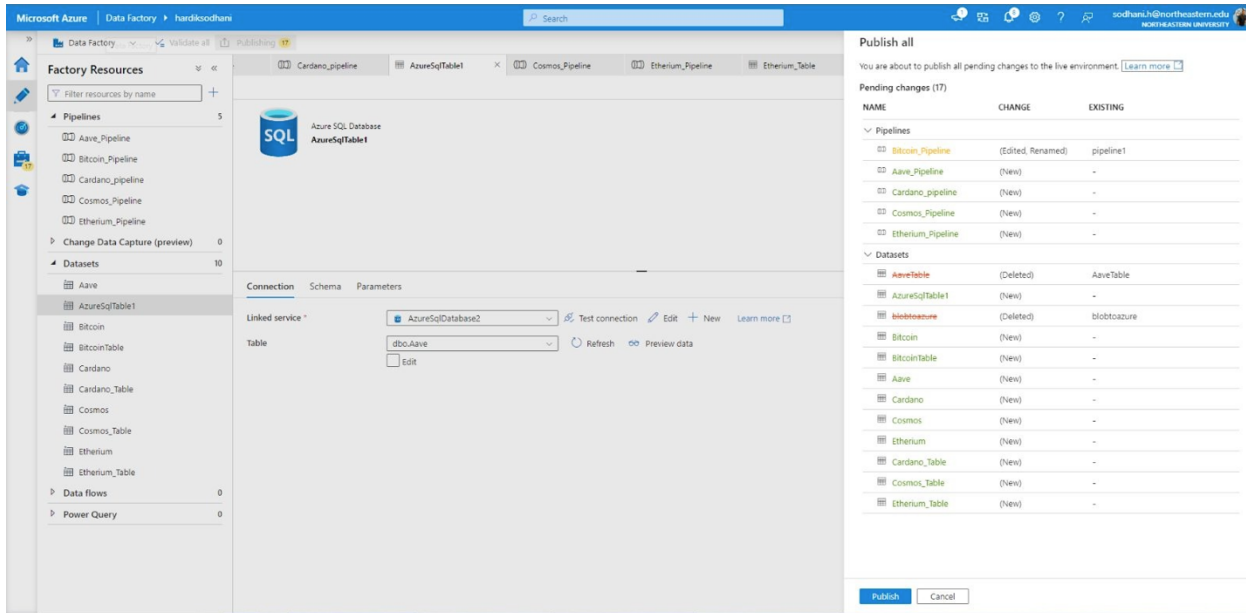
8. Triggered the pipeline.



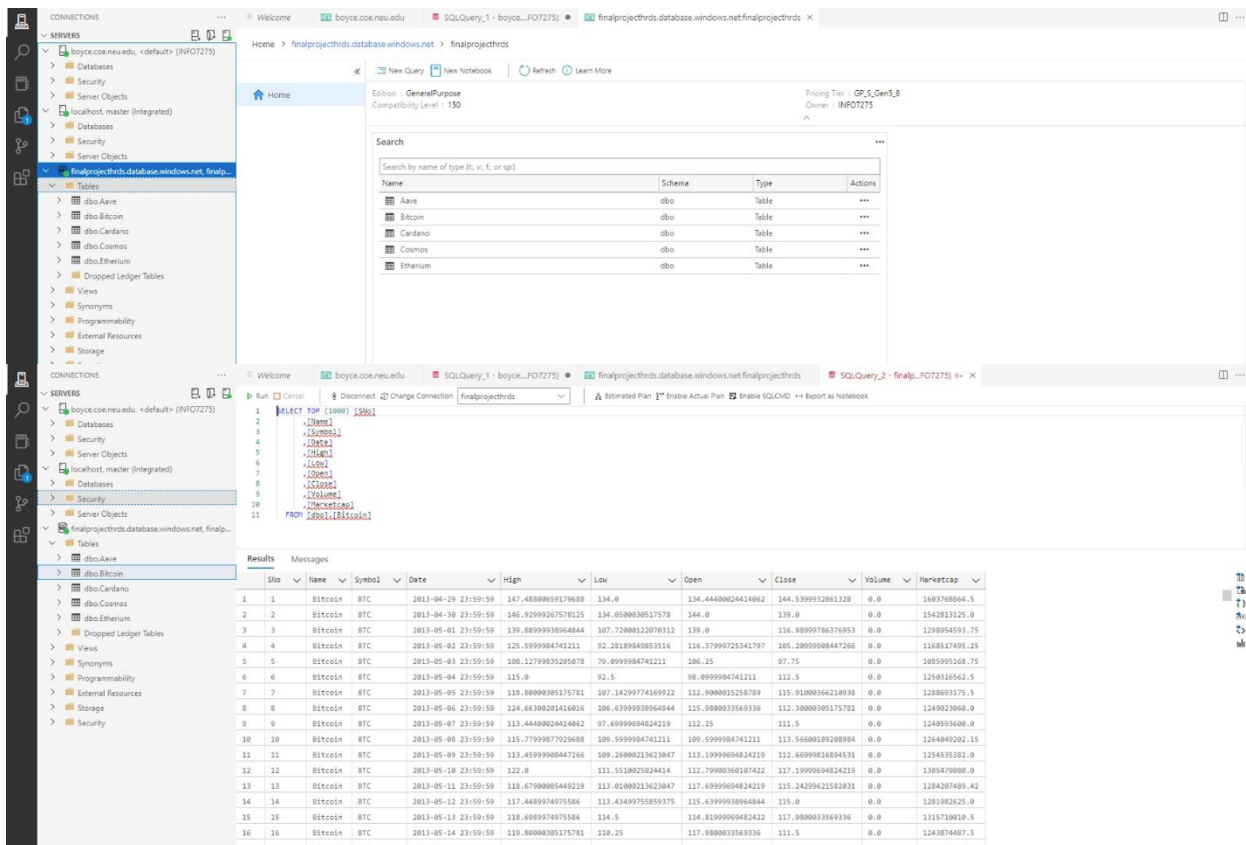
9. We then published the data to Azure SQL Database.



10. The data was successfully imported from Azure Blob Storage to Azure SQL Server.



11. The tables that we uploaded, were visible on the Azure SQL Server.



finalprojecthrds.database.windows.net, finalp...

Tables

dbo.Aave

Columns

SNo (nvarchar(max), null)

Name (nvarchar(max), null)

Symbol (nvarchar(max), null)

Date (nvarchar(max), null)

High (nvarchar(max), null)

Low (nvarchar(max), null)

Open (nvarchar(max), null)

Close (nvarchar(max), null)

Volume (nvarchar(max), null)

Marketcap (nvarchar(max), null)

Keys

Constraints

Triggers

Indexes

Statistics

dbo.Bitcoin

Columns

SNo (nvarchar(max), null)

Name (nvarchar(max), null)

Symbol (nvarchar(max), null)

Date (nvarchar(max), null)

High (nvarchar(max), null)

Low (nvarchar(max), null)

Open (nvarchar(max), null)

Close (nvarchar(max), null)

Volume (nvarchar(max), null)

Marketcap (nvarchar(max), null)