DXC TECHNOLOGY | unext

Presentation

for

DXC - Realtime Project

Covered under

UNext Learning

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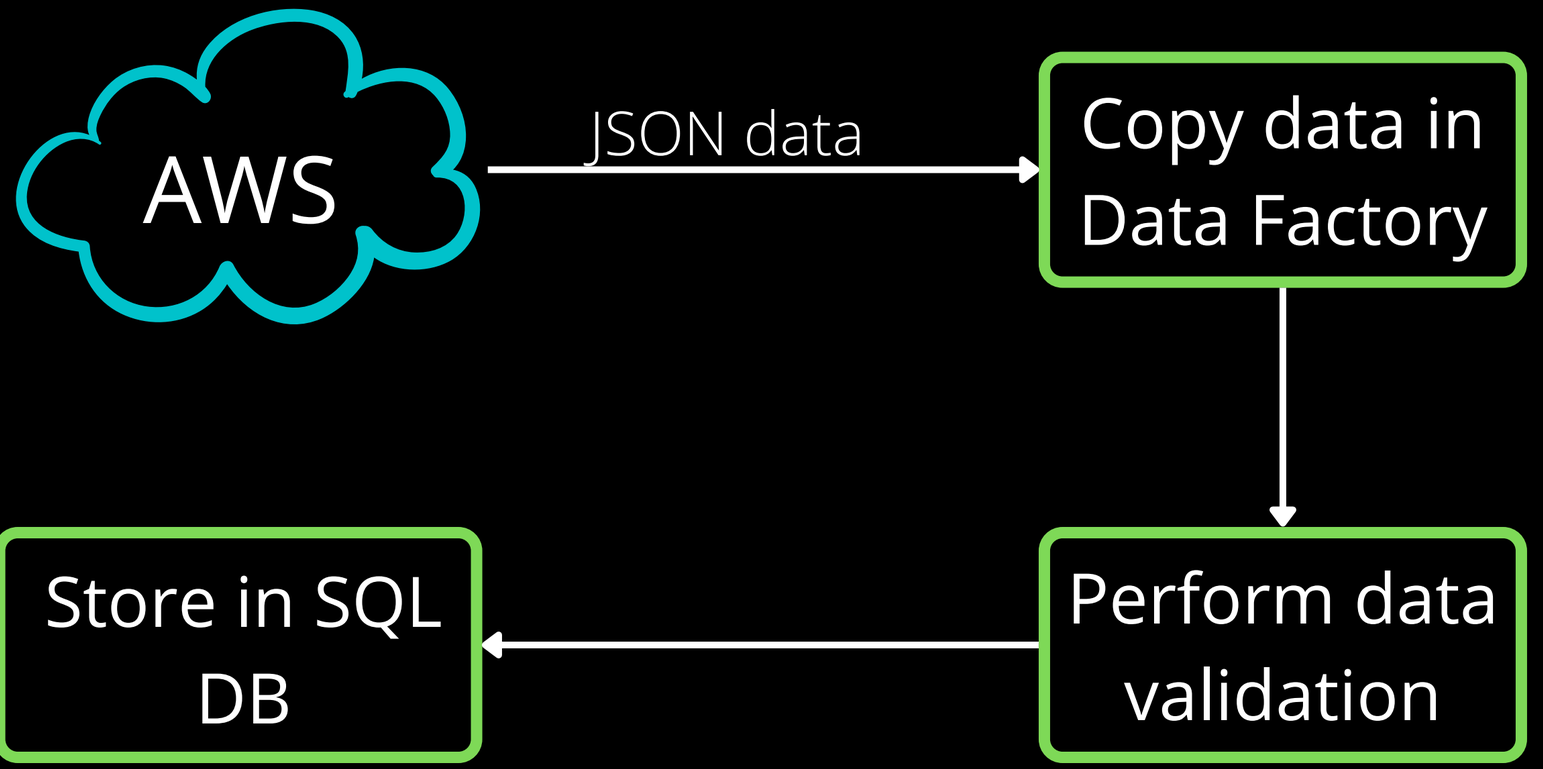
Introduction to the Projects

- Projects Assigned
  - Smart Vehicle
    - This project is designed to store IOT data coming from AWS platform in the JSON format which will be validated and moved to Azure's SQL database
  - AP Morgan Data Platform
    - The project is designed to work as a validation and integration system wherein the incoming data from multiple sources will undergo data integrity check and thereby stored in Delta table of Azure Databricks.

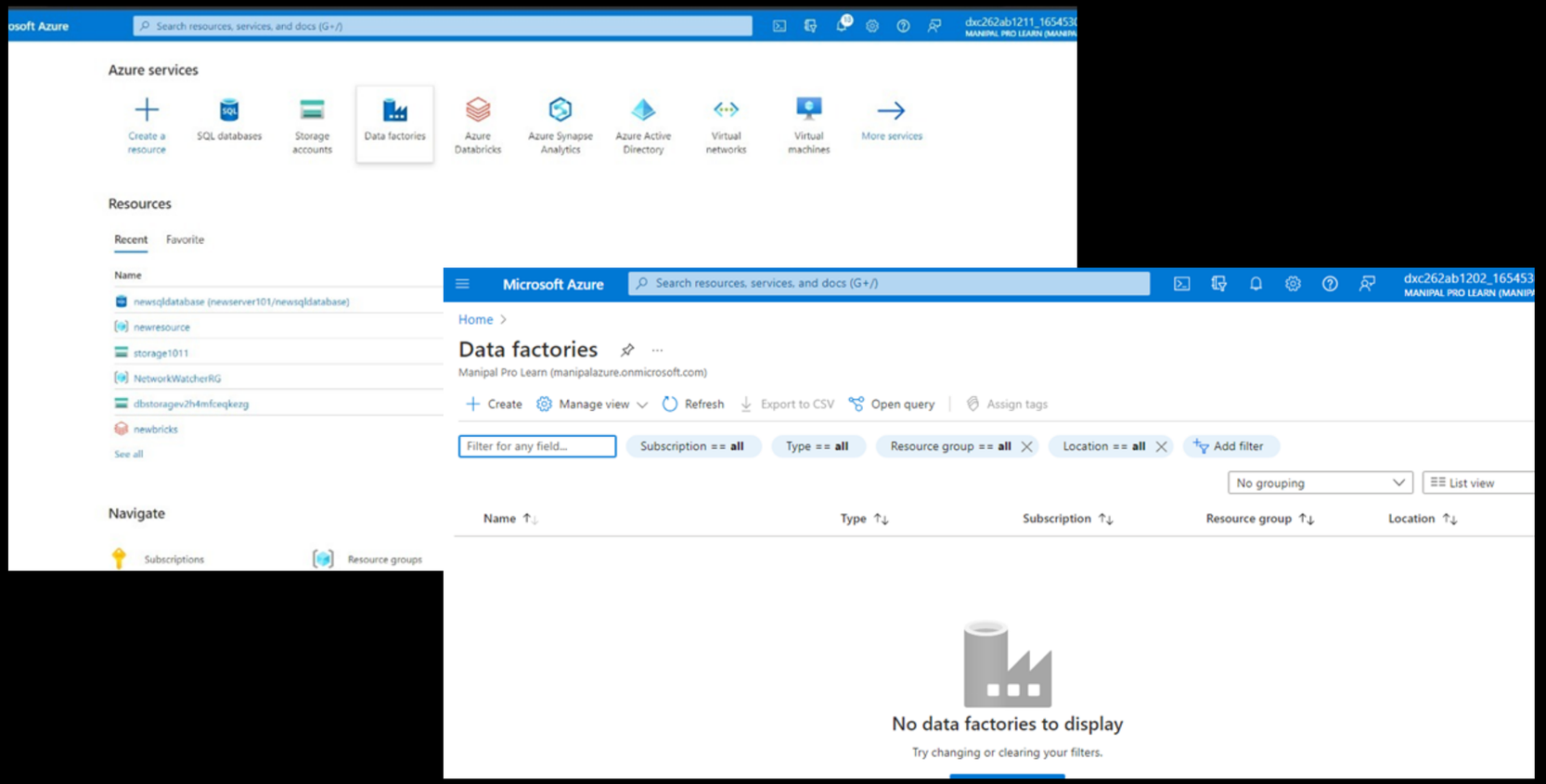
Smart Vehicles

- Project Description and Working
  - Smart vehicles compromise of creating a highly advance driving system with the use of IOT Data.



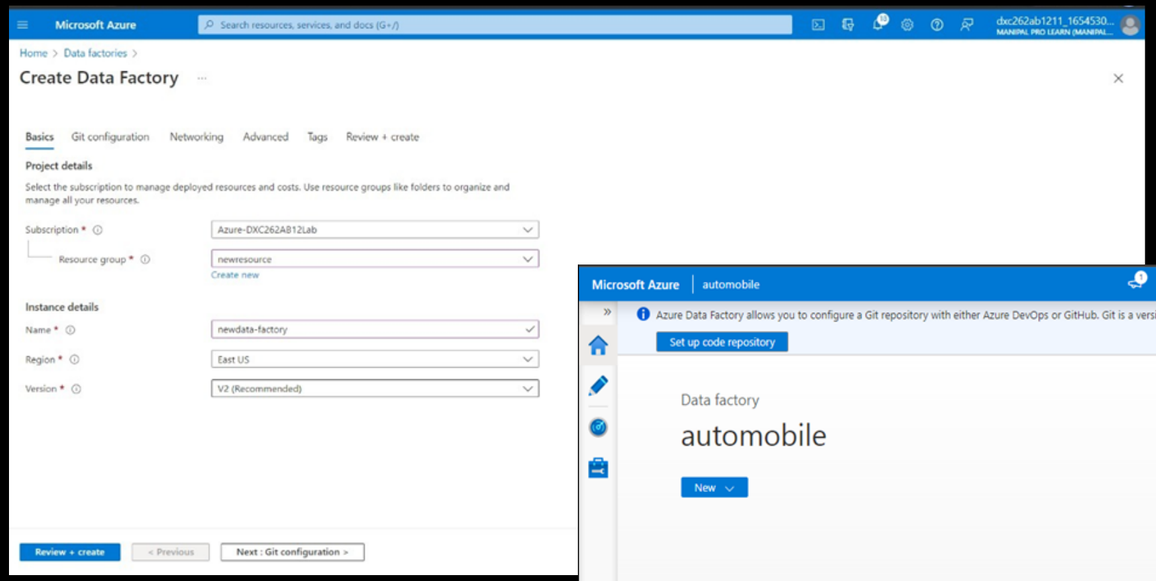
Smart Vehicles

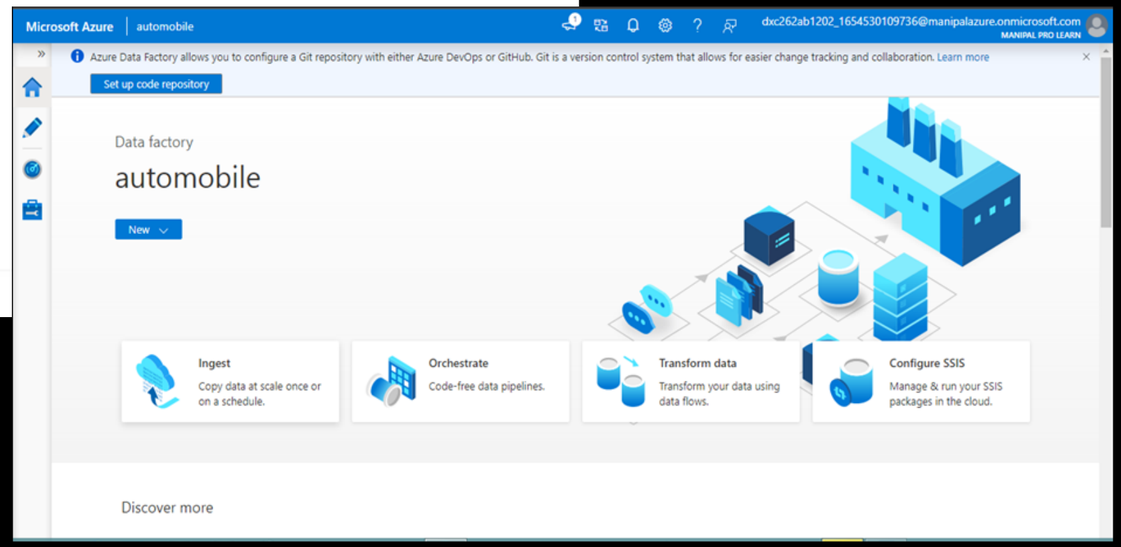
- The project is covered based on different tasks alloted
  - TASK 1 - Create Azure Data Factory Account For Data pipelines
    - Create a new Azure Data Factory



Smart Vehicles

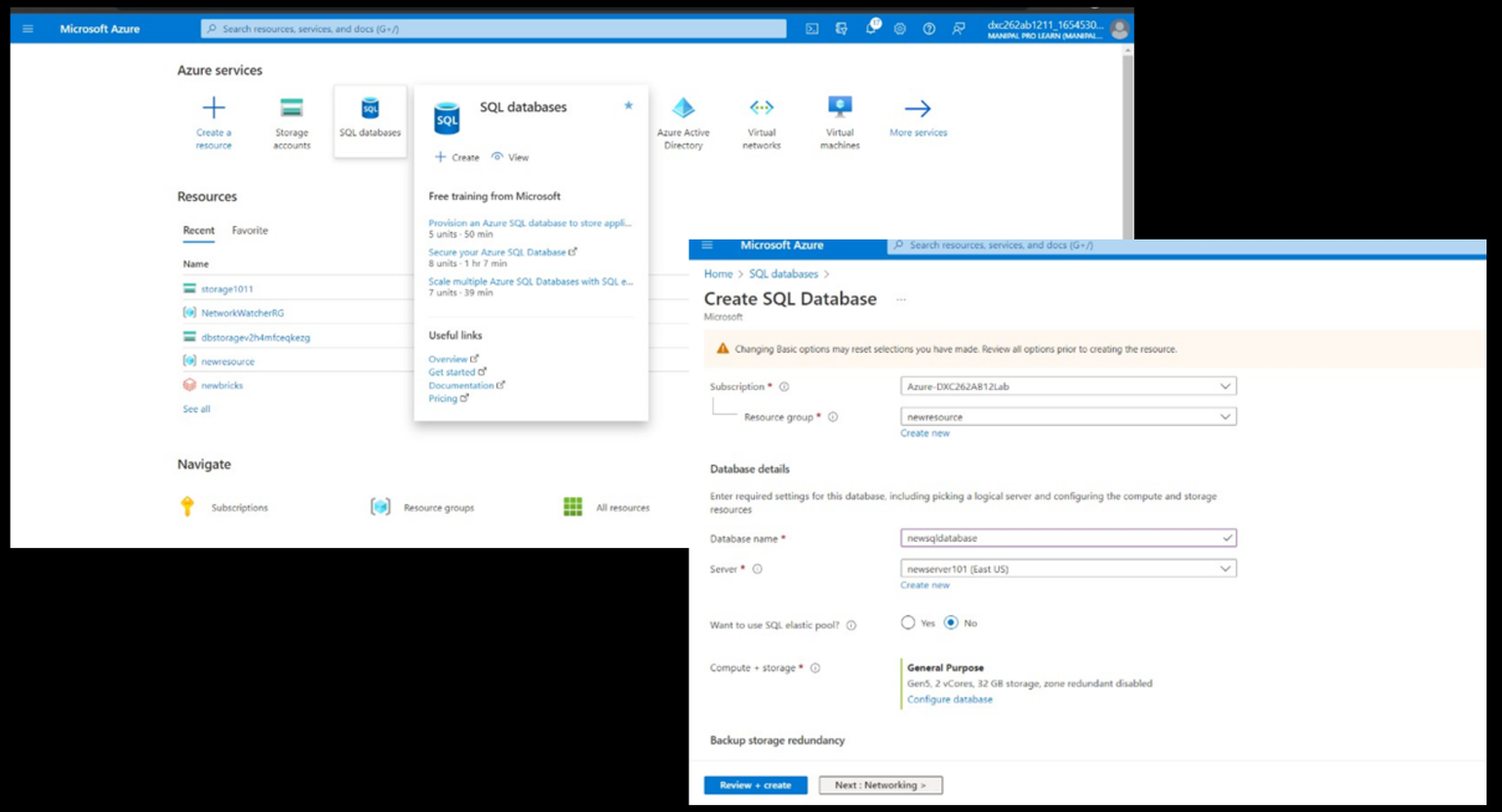
- TASK 1 - Create Azure Data Factory Account For Data pipelines
  - Enter the details about the Data Factory account and deploy
  - Open Data factory account and We have successfully created azure data factory account.





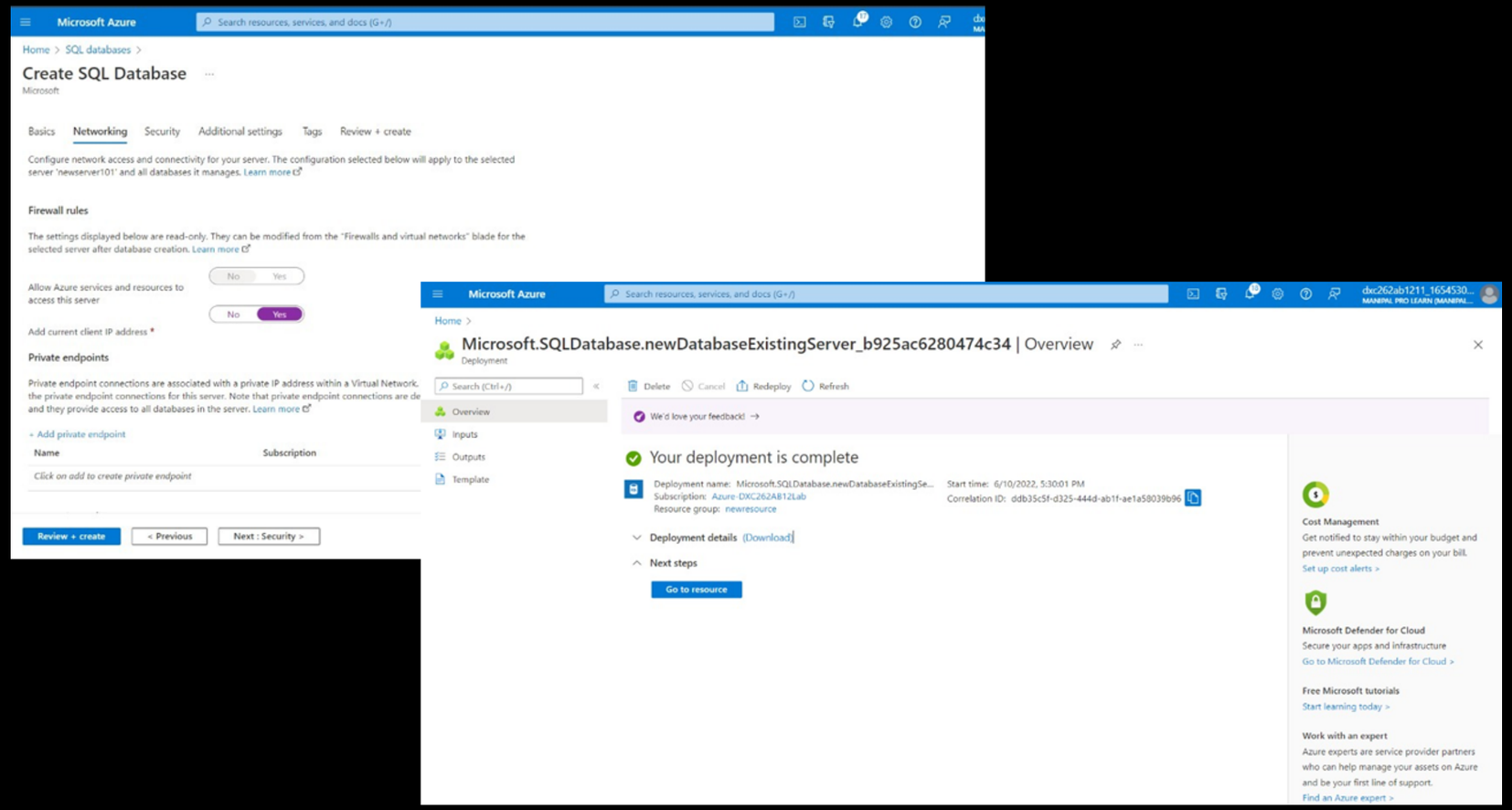
Smart Vehicles

- TASK 2 - Create Azure SQL Server and Database
  - Search and Open SQL database
  - Click on + Create
  - Enter the basic details for the account and proceed to networking



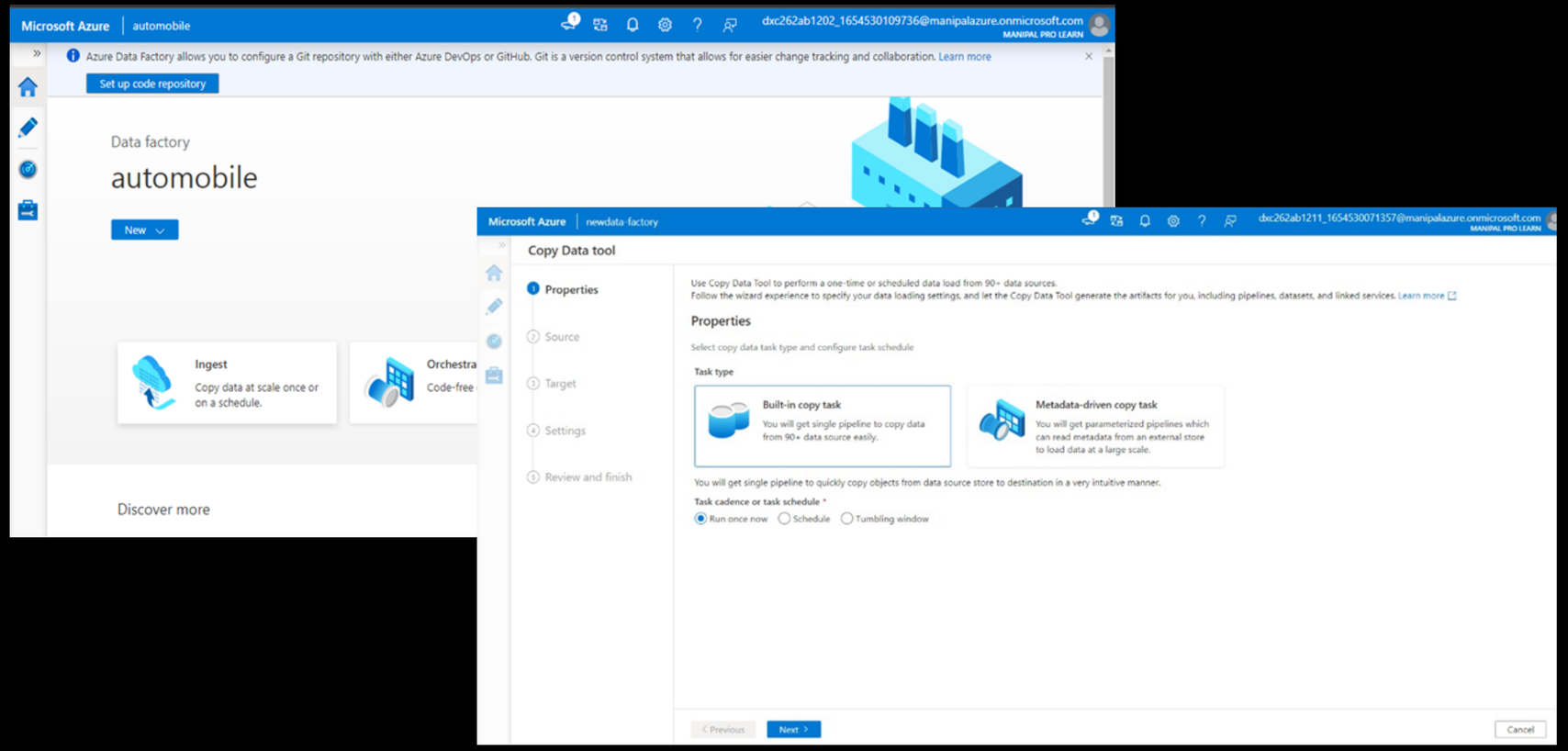
Smart Vehicles

- TASK 2 - Create Azure SQL Server and Database
  - Give access for current IP address for connectivity
  - Proceed to deployment after successful validation



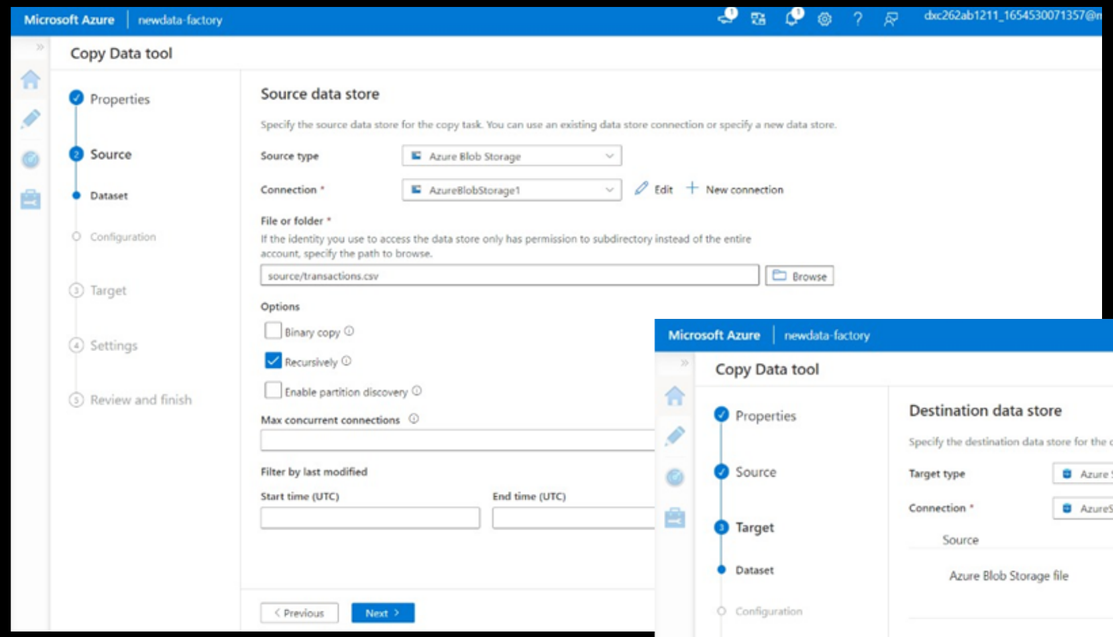
Smart Vehicles

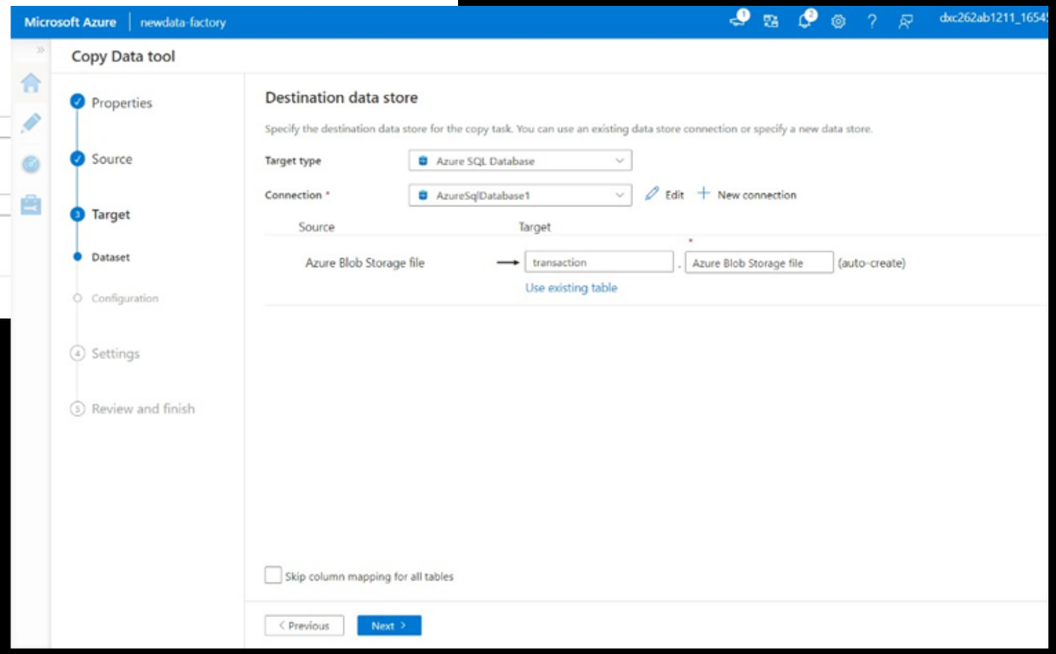
- TASK 3- Create ADF Pipeline End to end pipeline with triggers enable
  - Open Data Factory and Click on Copy data tool
  - Select build-in copy tool and proceed



Smart Vehicles

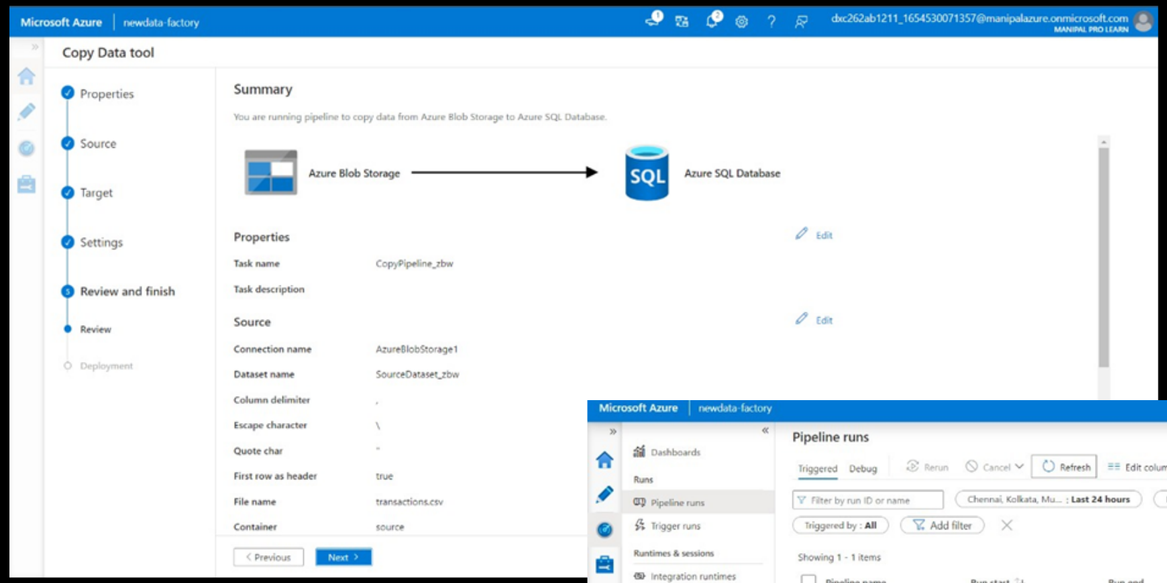
- TASK 3- Create ADF Pipeline End to end pipeline with triggers enable
  - Create a source and destination path for the pipeline

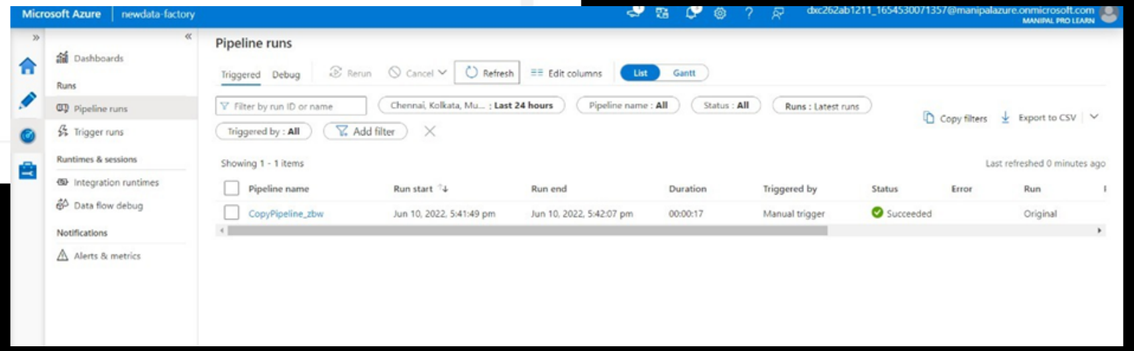




Smart Vehicles

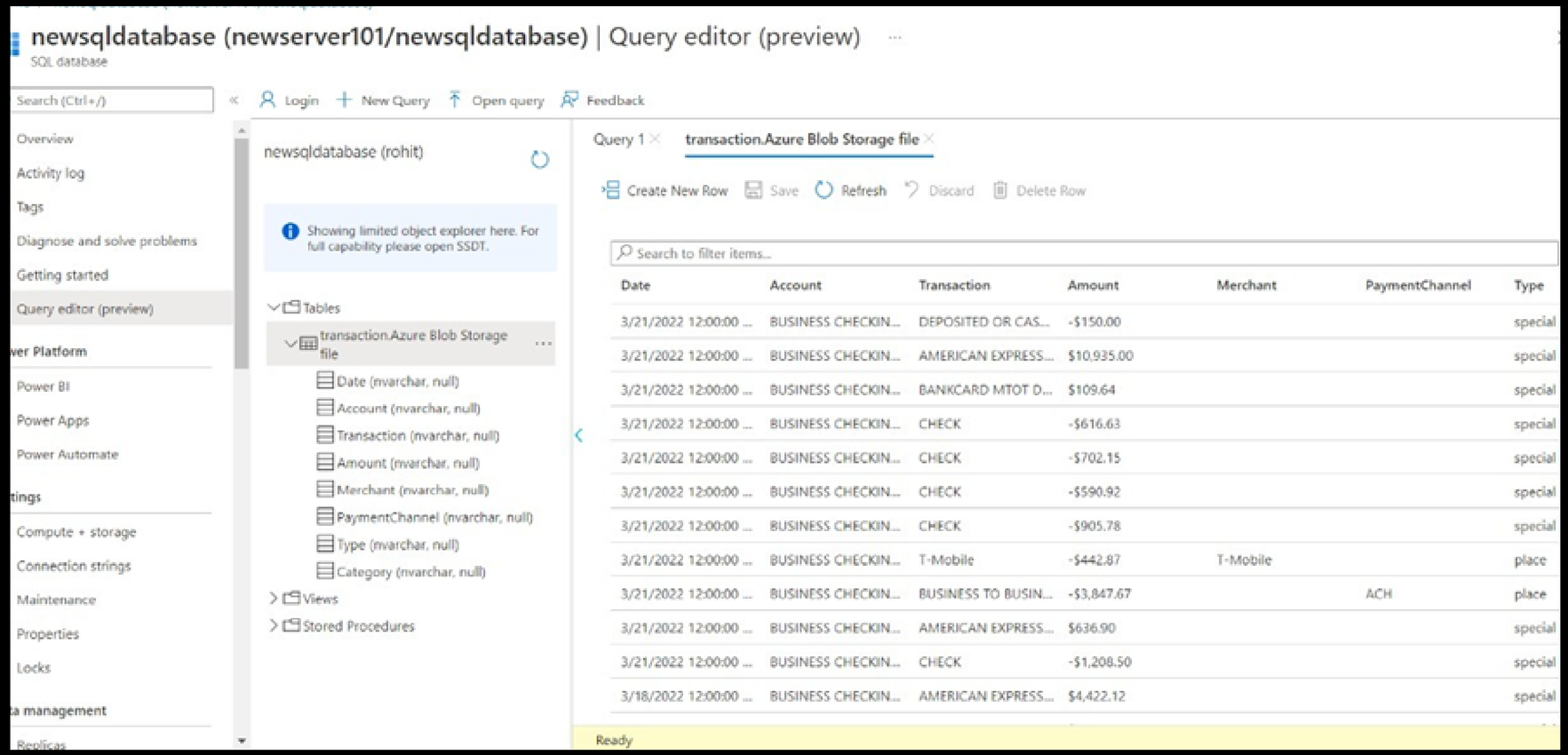
- TASK 3- Create ADF Pipeline End to end pipeline with triggers enable
  - After pipeline is ready , review and trigger it.





Smart Vehicles

- TASK 3- Create ADF Pipeline End to end pipeline with triggers enable
  - End results

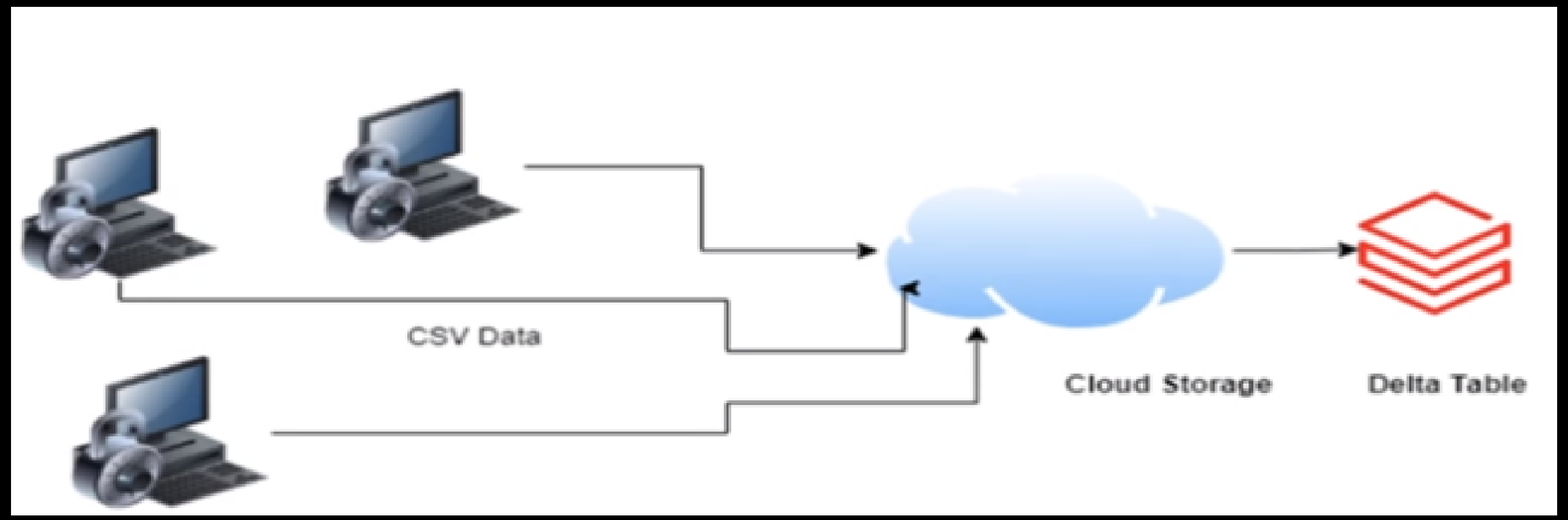


Conclusion

- In this project we successfully created a pipeline that validated and copied the blob data into the SQL database using Azure Data Factory

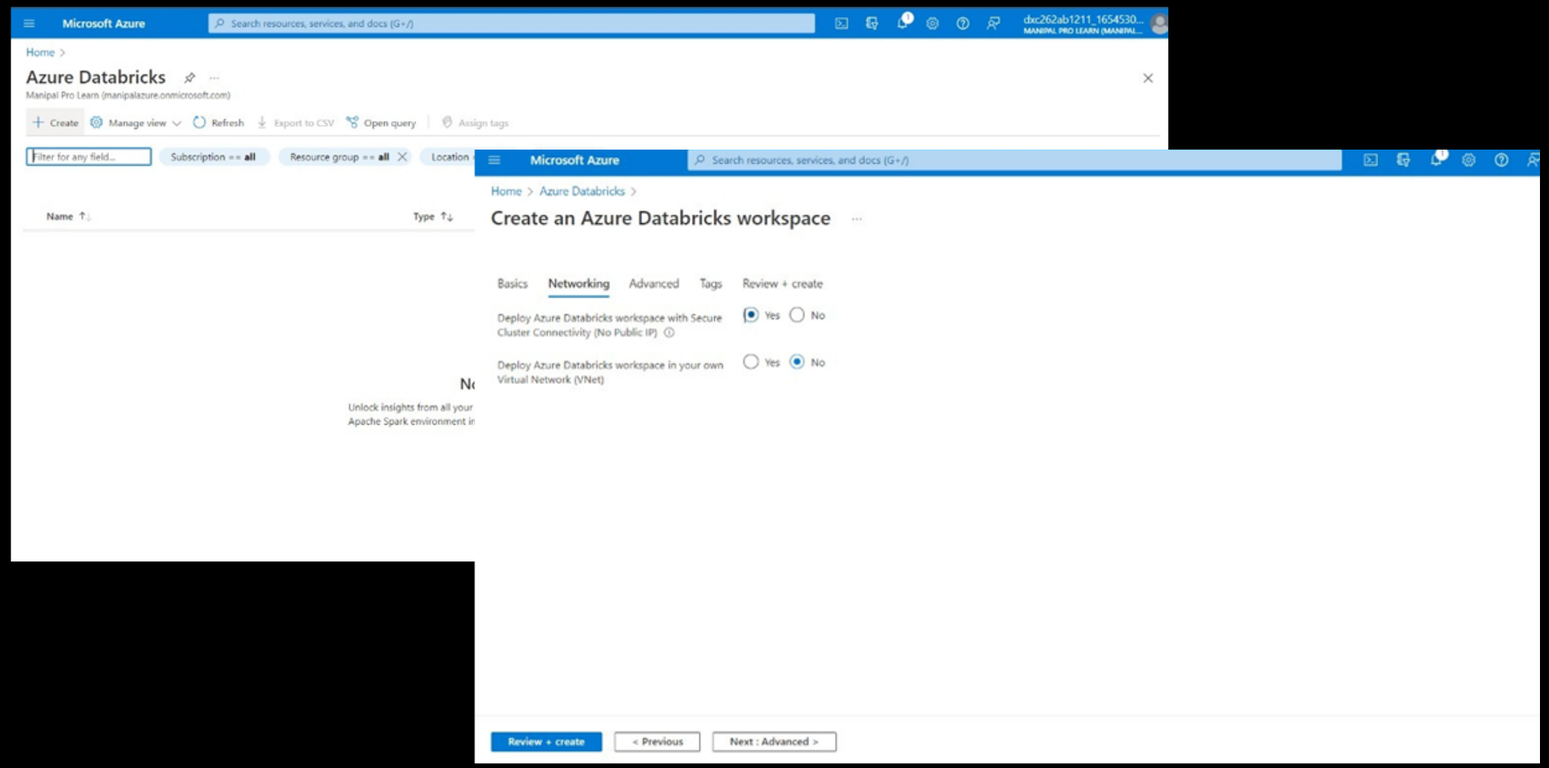
AP Morgan Data Platform

- Project Description and Phases
  - The data coming from different sources need to be integated after validating to get a final database and make data ready for further analysis.



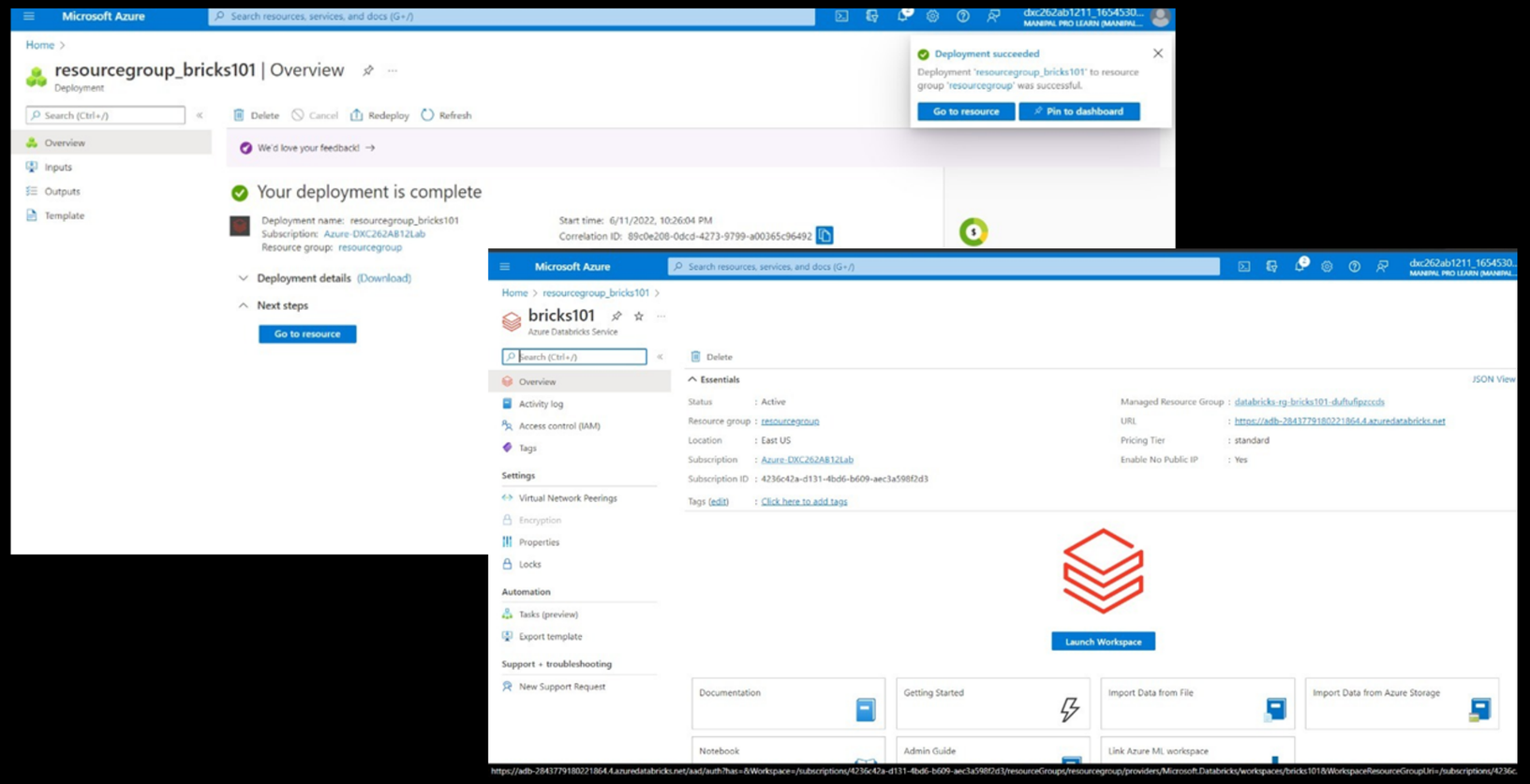
AP Morgan Data Platform

- TASK 1 - Create a DataBricks workspace and create a cluster into it
  - Navigate and open databricks and click on +create
  - Give the details about the account required.
  - In networking give access for secure cluster connectivity and proceed for deployment.



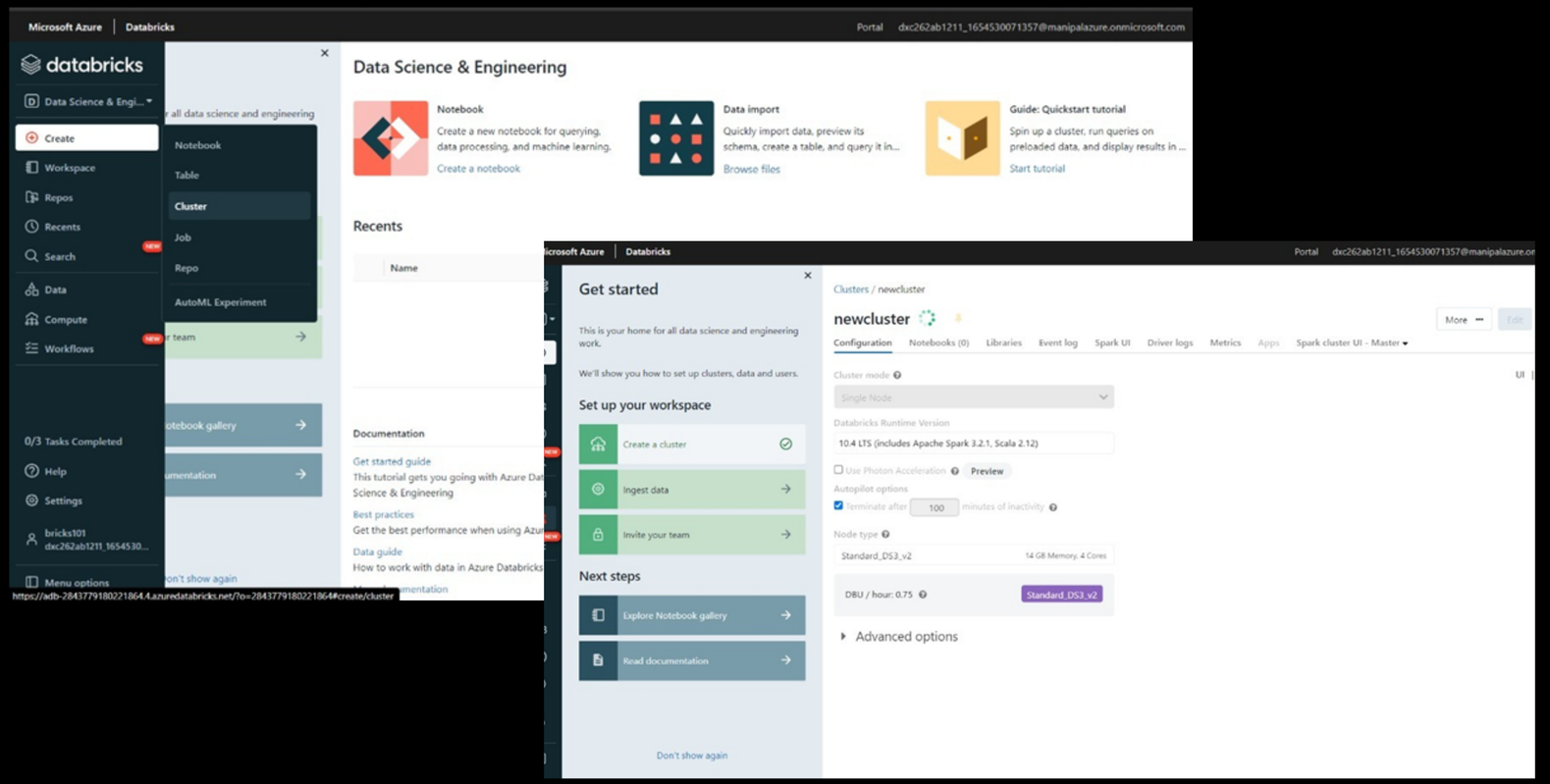
AP Morgan Data Platform

- TASK 1 - Create a DataBricks workspace and create a cluster into it
  - After the deployment is done proceed to launching the Data bricks workspace.



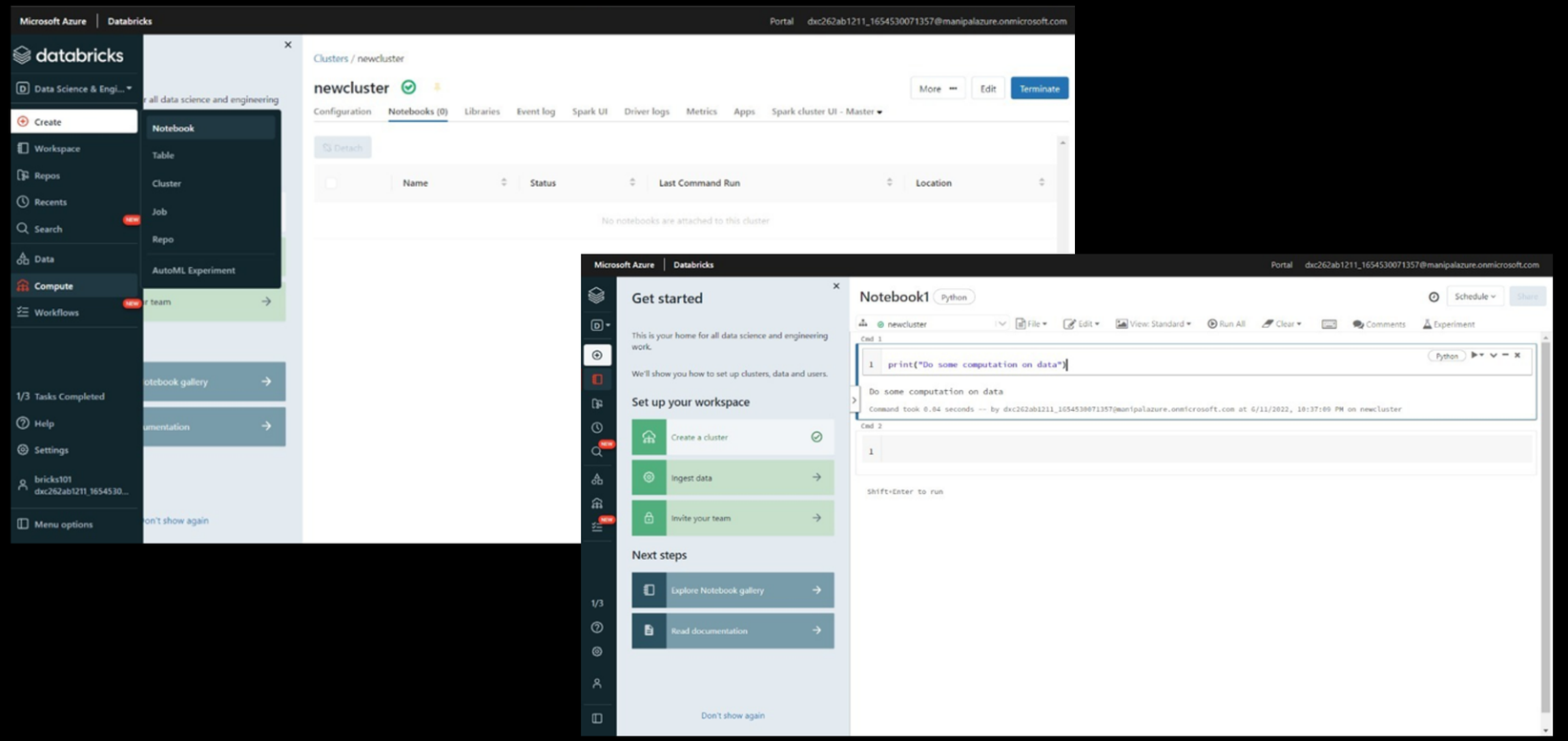
AP Morgan Data Platform

- TASK 1 - Create a DataBricks workspace and create a cluster into it
  - Navigate to Cluster present in create dropdown
  - Give the details about cluster and proceed to create



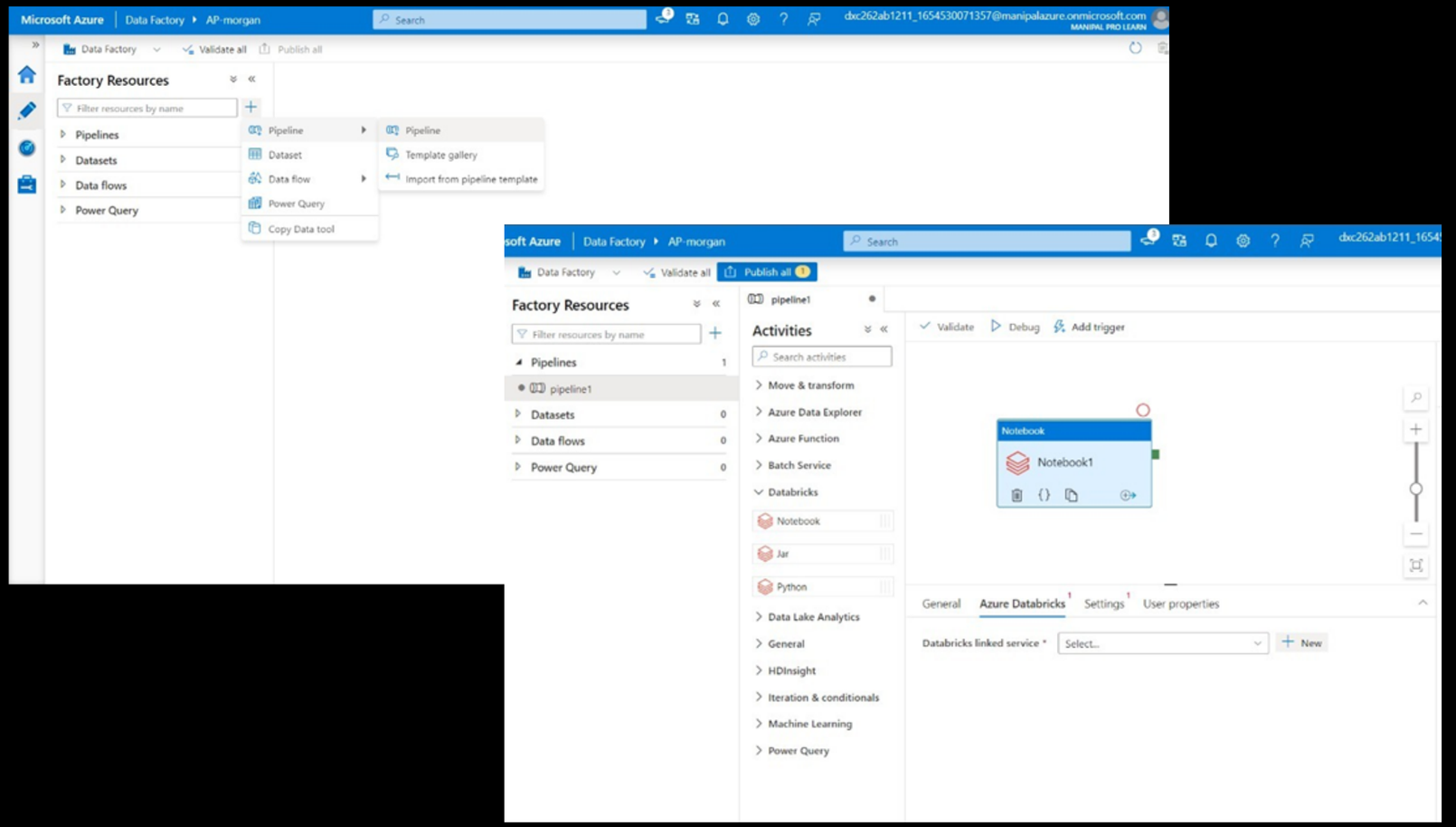
AP Morgan Data Platform

- TASK 2 - Add notebook in Databricks and Implement the Business Logic
  - Navigate towards creating a Notebook and open it
  - Here we are suppose to perform some data manipulation and validation with respect to data.



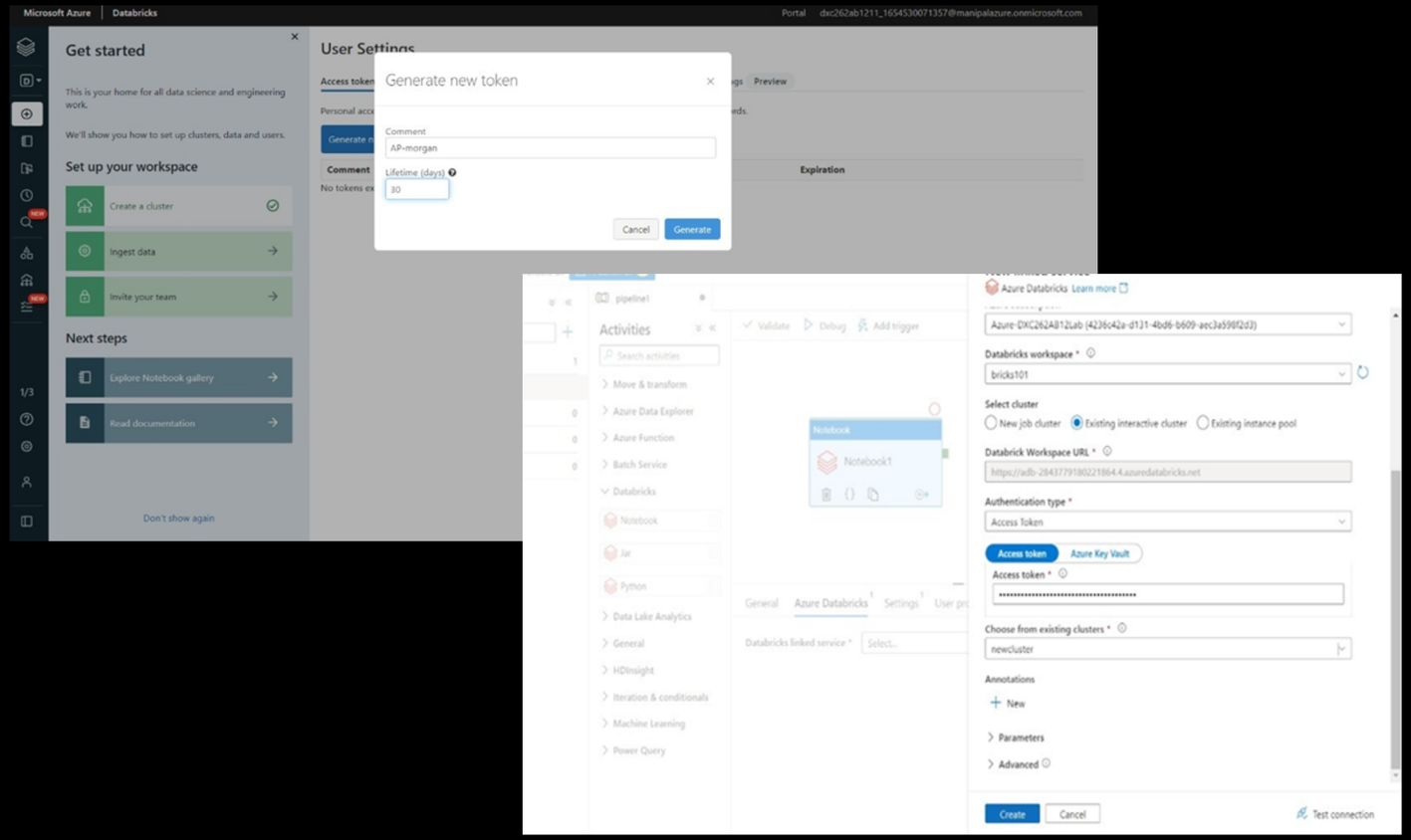
AP Morgan Data Platform

- TASK 3 - Add Azure data bricks linked service in Data Factory
  - Creating a pipline by dropping and linking notebook that is created in the data bricks



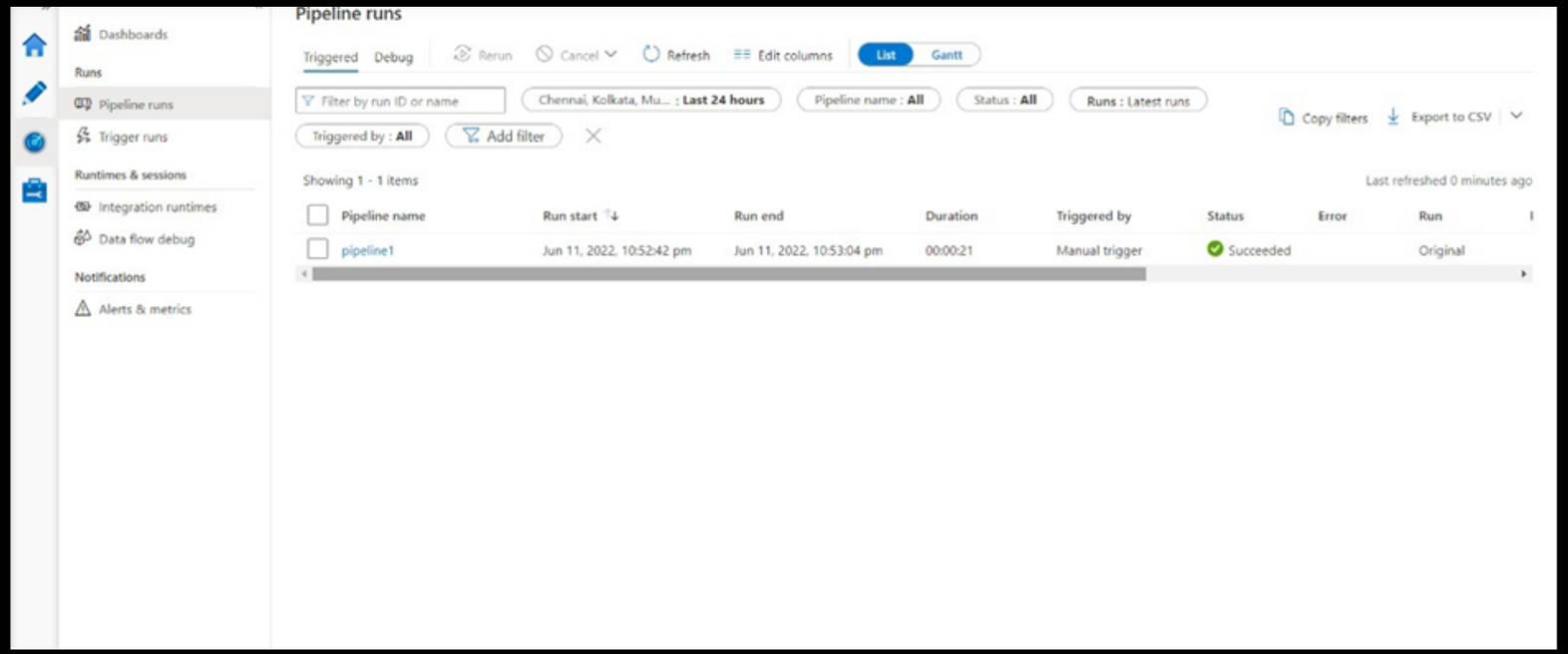
AP Morgan Data Platform

- TASK 3 - Add Azure data bricks linked service in Data Factory
  - Give the details required to connect Notebook incuding Access Token.



AP Morgan Data Platform

- TASK 3 - Final Result
  - Navigate towards monitor and here we have our pipeline created and triggered linking data bricks with azure data factory



Conclusion

- In this project we were able to successfully link and trigger azure Data Bricks notebook using Data Factory.

Learning Outcome

- Hands on experience on Azure Data bricks , Data Factory , Azure SQL database , Azure Blob Storage.
- By linking connectivity within azure services enabled to learn and get the most out of Azure databricks and Azure Data Factory.
- Diving into Data factory trigger functionality and Databricks code utility gave an opportunity to learn more about automating workflow.


THANK
YOU