Azure Data Factory Project: Implementing Retry Logic for Data Retrieval Failures

1. Create Azure SQL Database (Source)

- Created a new SQL Database named RetryDemoDB
- Created a new SQL Server (retrydemosqlserverXYZ)
- Set admin login and password
- Added sample table Employees with 2 sample rows

```
CREATE TABLE Employees (
  ID INT PRIMARY KEY,
  Name VARCHAR(50),
  Position VARCHAR(50)
);
```

```
INSERT INTO Employees VALUES (1, 'Alice', 'Engineer'), (2, 'Bob', 'Manager');
```

	A	B	C	D	E	F
1	ID	Name	Position			
2	1	Alice	Engineer			
3	2	Bob	Manager			
4						
5						
6						
7						
8						
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10						
11						

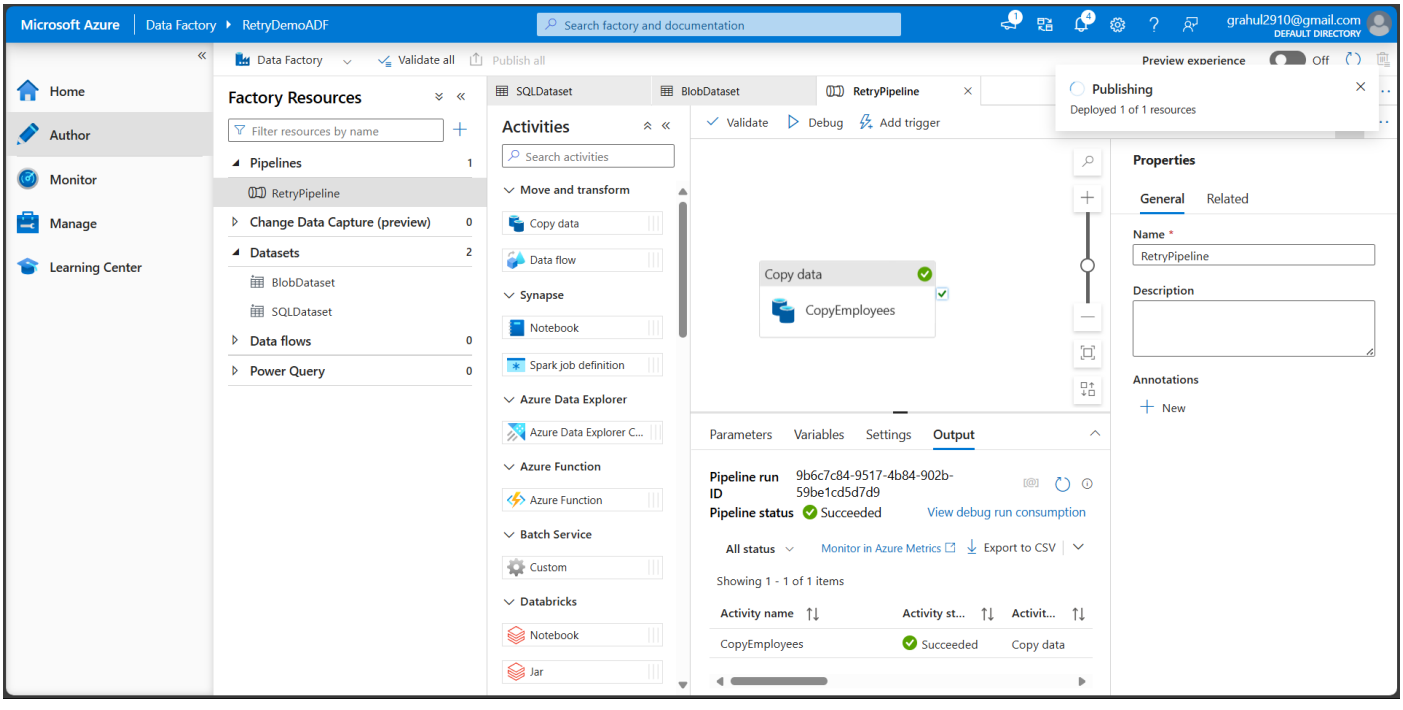
2. Create Azure Storage Account (Sink)
    - Created a Storage Account named retrystorageXYZ
    - Created a blob container named output-data

3. Create Linked Services in ADF

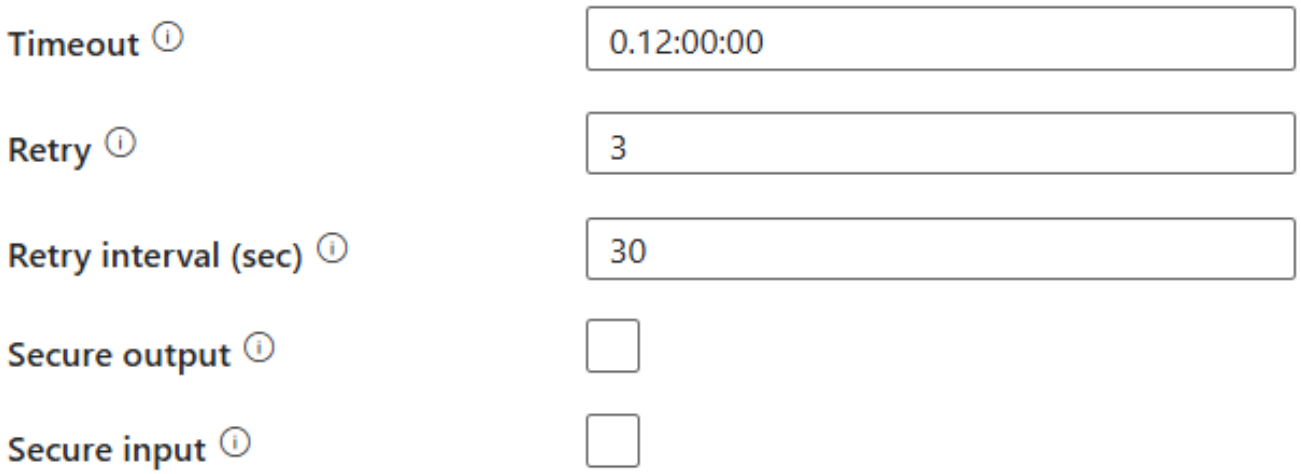
    (a) SQL Database Linked Service:
    - Type: Azure SQL Database
    - Used SQL authentication
    - Tested connection successfully

    (b) Blob Storage Linked Service:
    - Type: Azure Blob Storage
    - Authentication: Account Key
    - Tested connection successfully

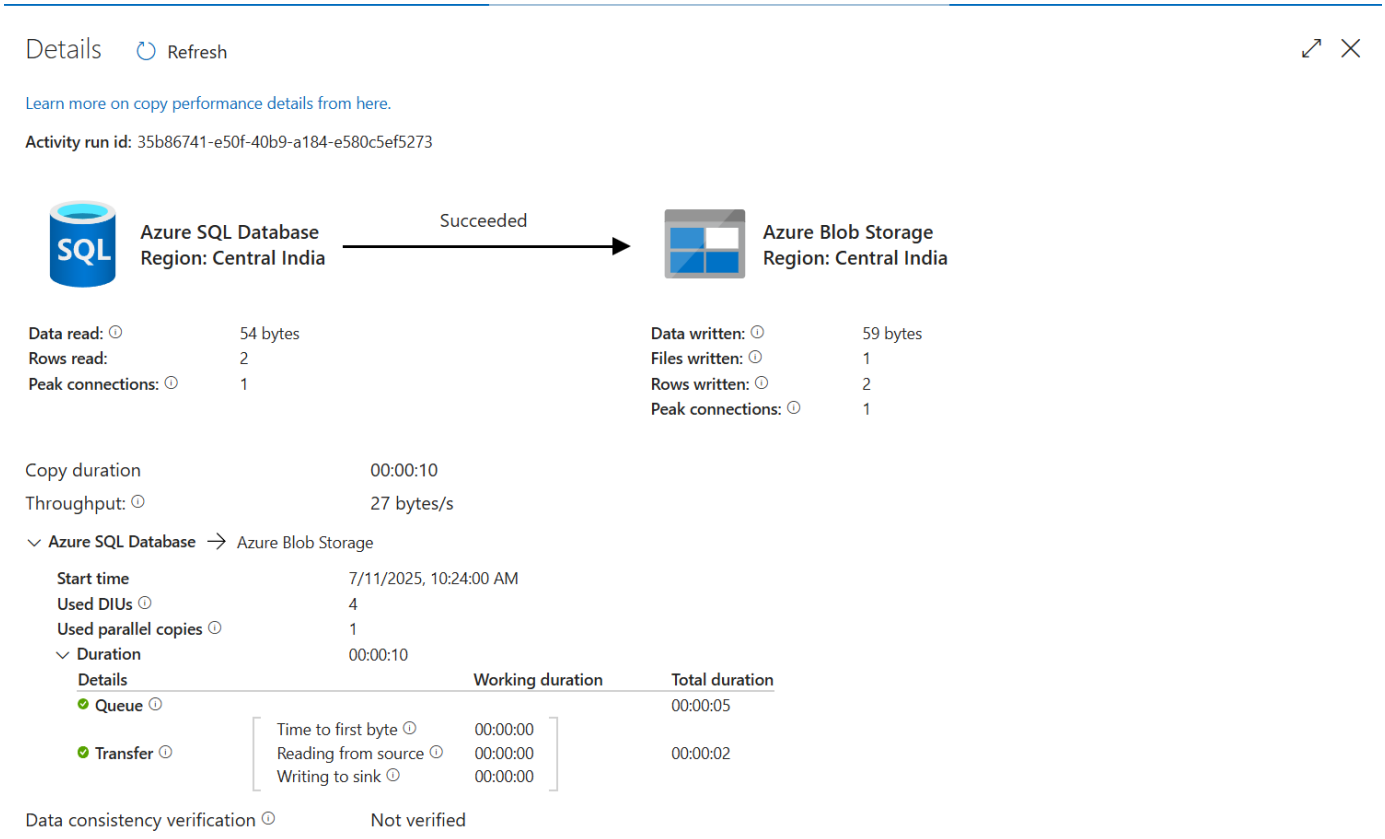
4. Create Pipeline
    - Created pipeline named RetryPipeline
    - Added Copy Data activity named CopyEmployees
    - Set:
        - Source dataset: SQL Dataset
        - Sink dataset: Blob Dataset



5. Configure Retry Logic (Fault Tolerance)
    - Selected Copy Data activity → Right Properties Panel
    - In Fault Tolerance section:
        - Retry count: 3
        - Retry interval: 10 seconds
    - Enabled logging (optional) and selected Blob linked service

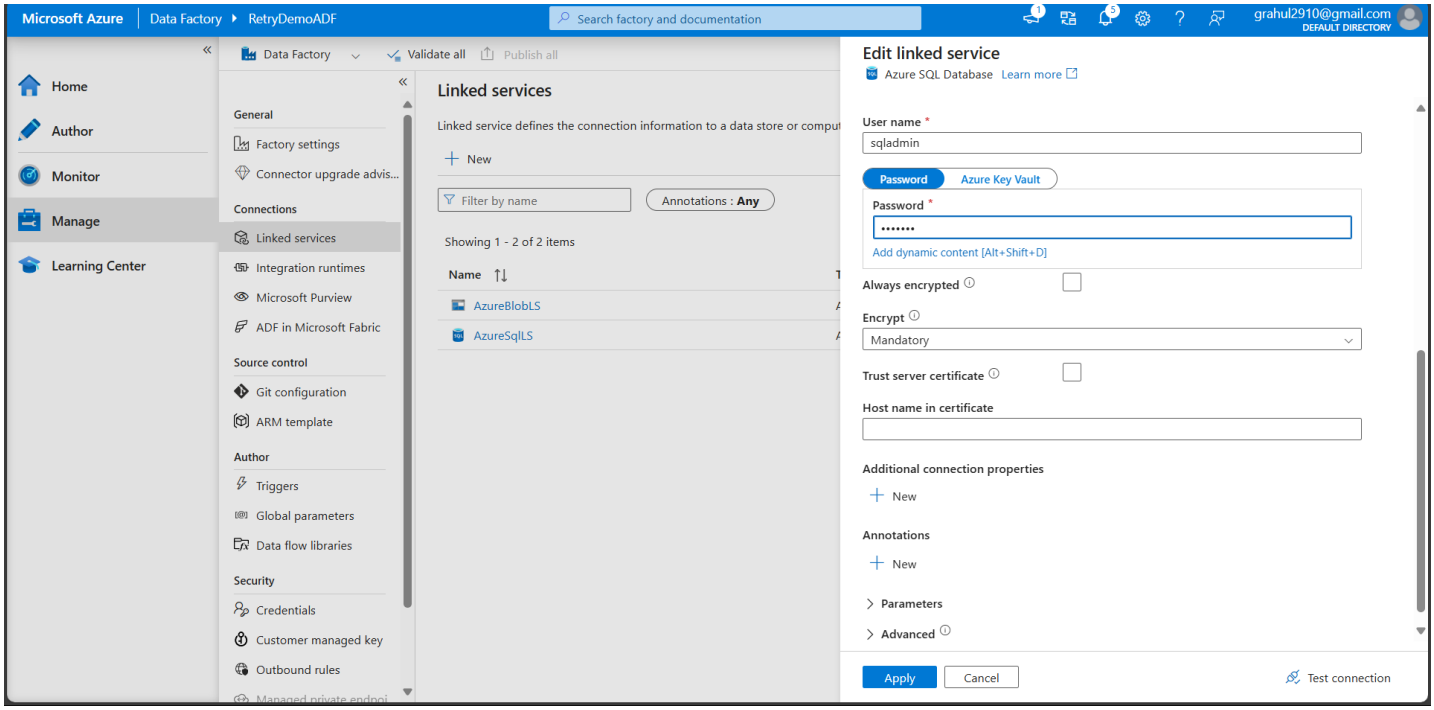


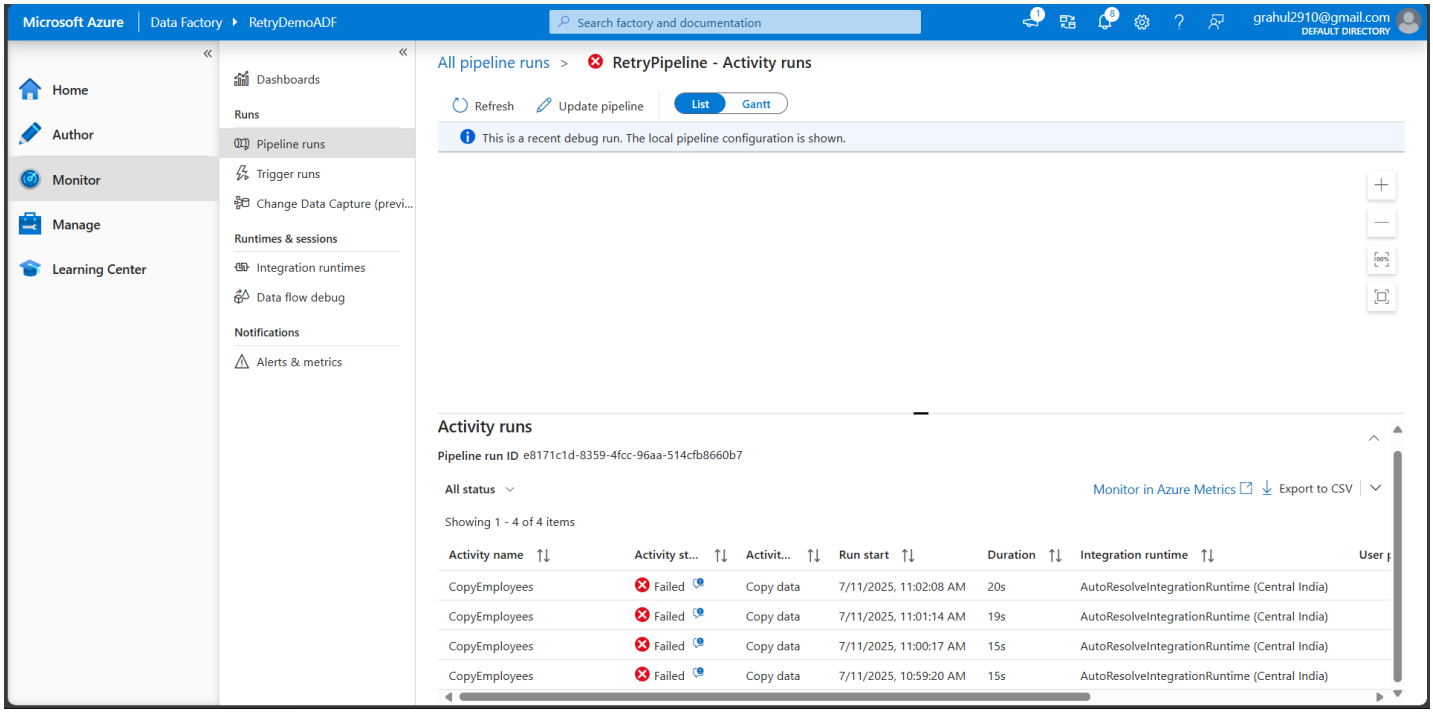
6. Debug and Publish
    - Clicked Debug to run the pipeline and verify successful execution
    - Clicked Publish All to save all objects in the data factory

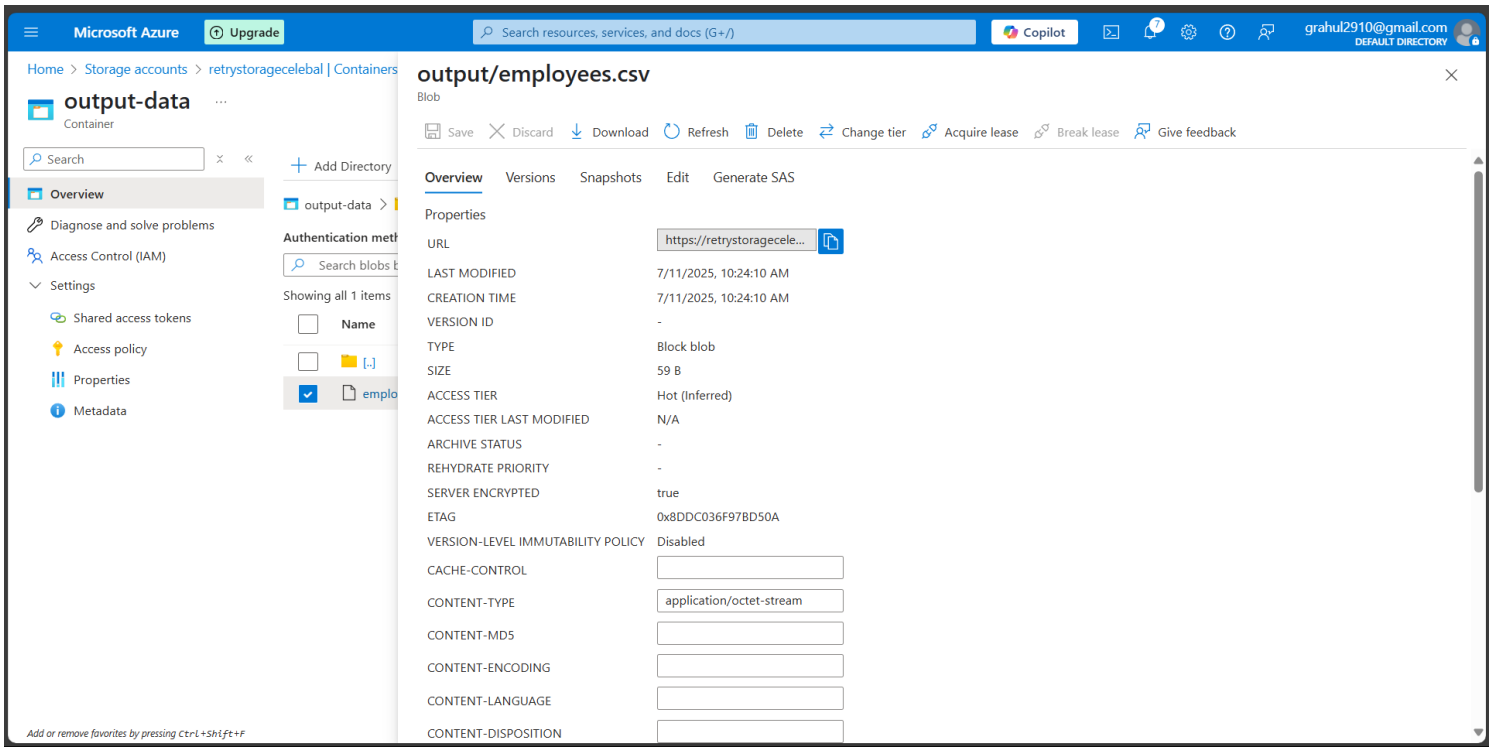


7. Verify Output

- Navigated to Azure Storage Account
- Change the password of the database to something that is not correct so that we can simulate the condition of a failure which will lead to the retry condition to occur
- Opened container output-data/output/
- Verified that employees.csv was generated with correct data’







Full Video-

https://drive.google.com/file/d/1riOz1ofHRU4YQoDiJI3gXNSB2jS0NbVf/view?usp=sharing