TASK 5

Retrieving data. Wait a few seconds and try to cut or copy again: Implement logic to handle data retrieval failures gracefully by waiting briefly (e.g., a few seconds) before retrying cut, copy, or extraction operations, improving pipeline resilience and reducing transient error impacts.

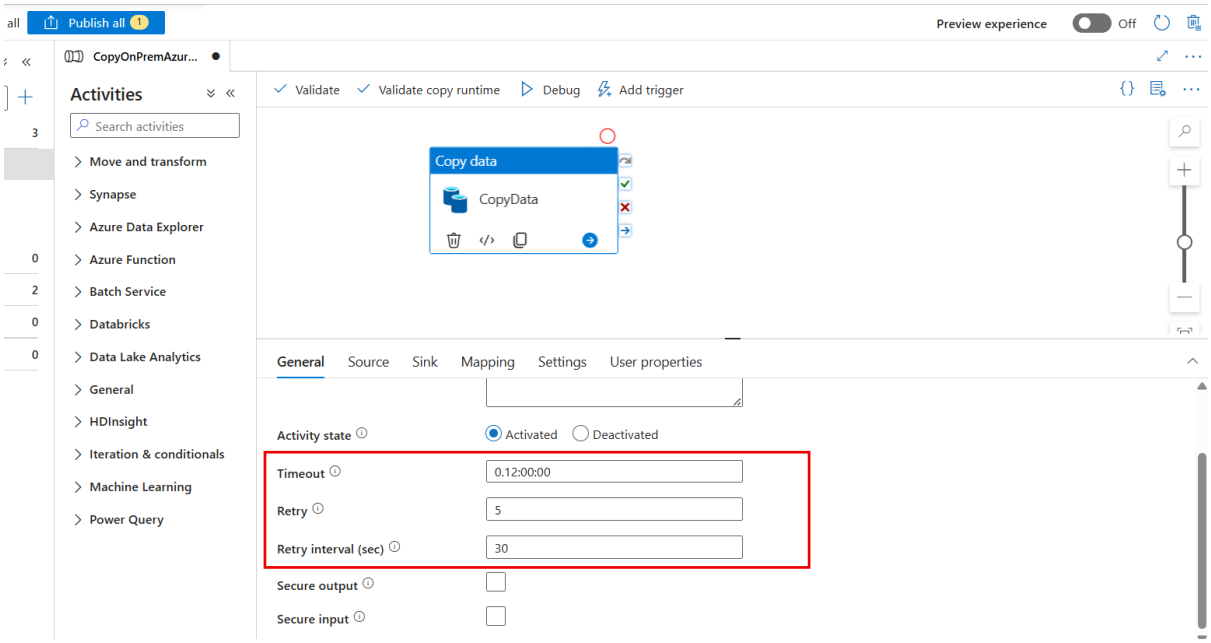
There are three methods to handle data retrieval failures gracefully:

Method 1: Use Built-in Retry on Activities

Steps:

1. Select activity (e.g., Copy data, Lookup, Web).
2. In the **General tab**:
    - Set Retry count (default is 0)
    - Set Retry interval in **seconds**

This will automatically retry transient failures.



Method 2: Add Custom Retry Logic (Wait + Until)

This method provides more control (e.g. retry only on certain errors), use a loop with **Wait** and **Until** activities.

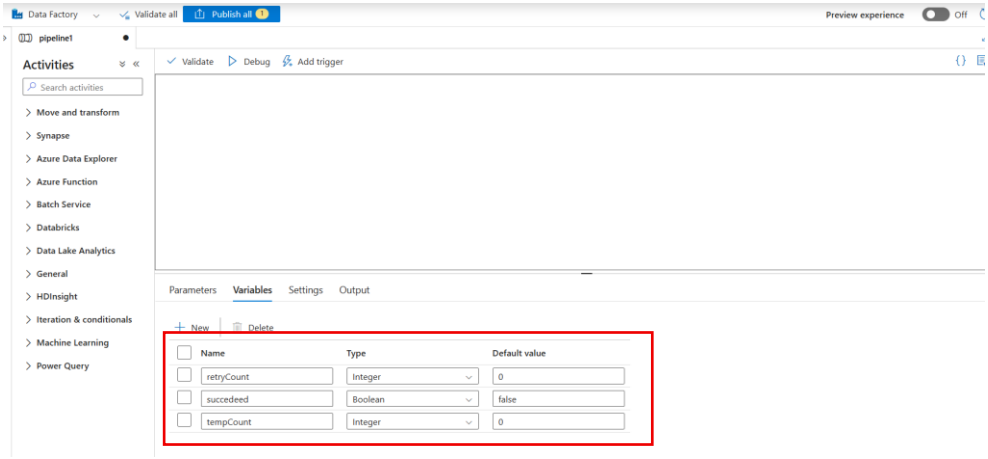
How it works:

- Loop up to N times
- Wait in between
- Stop when activity succeeds or max attempts reached

Step-by-Step Guide:

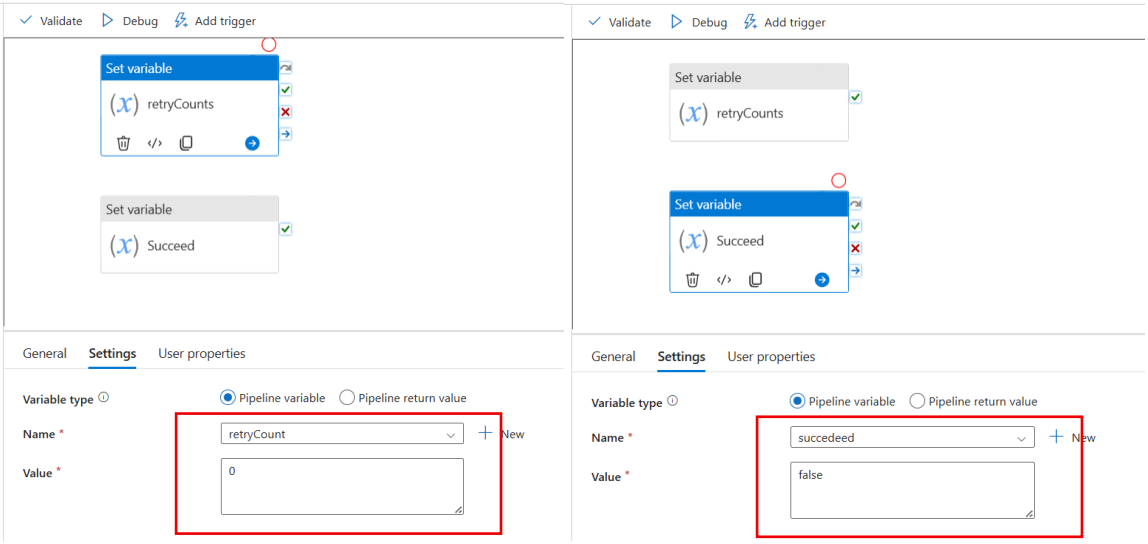
1. Add 2 Pipeline Variables:

- retryCount → type: **Int**, default: 0
- succeeded → type: **Bool**, default: false
- tempCount → type: **Int**, default: 0



2. Add a Set Variable Activity: ResetRetries

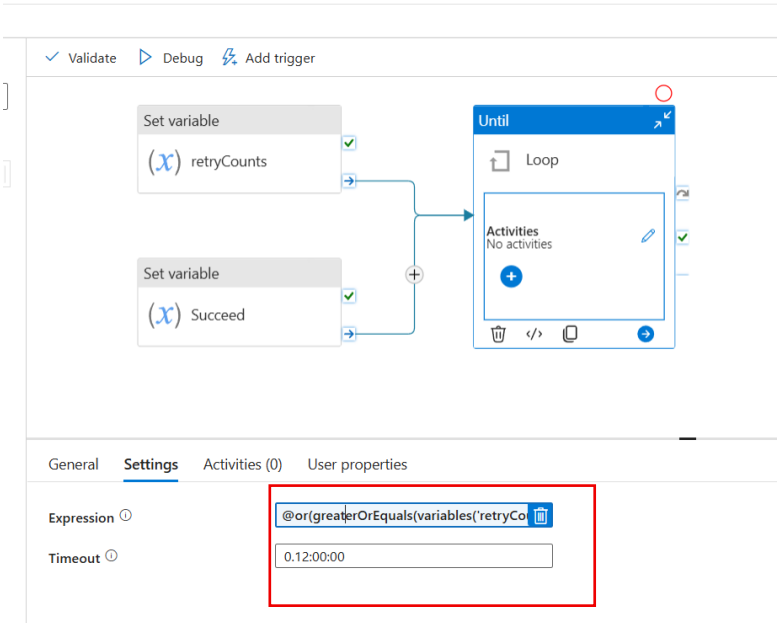
- Set retryCount = 0
- Set succeeded = false



3. Add an Until Activity:

@or(greaterOrEquals(variables('retryCount'), 3), variables('succeeded'))

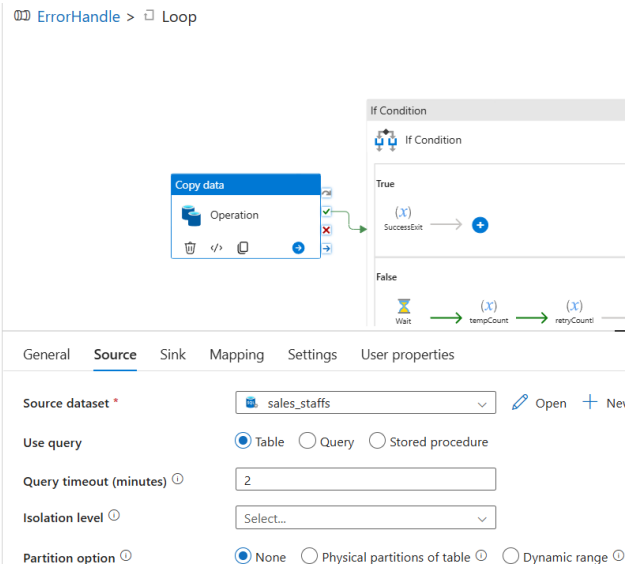
- This means: keep retrying **until** 3 attempts or success.



4. Inside the Until activity, add these(we are performing data transfer operation as Task 1):

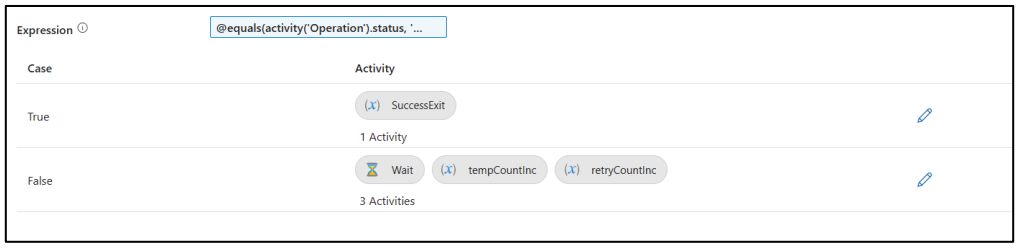
a. Copy Data

- Name: **Operation**
- Set up configuration

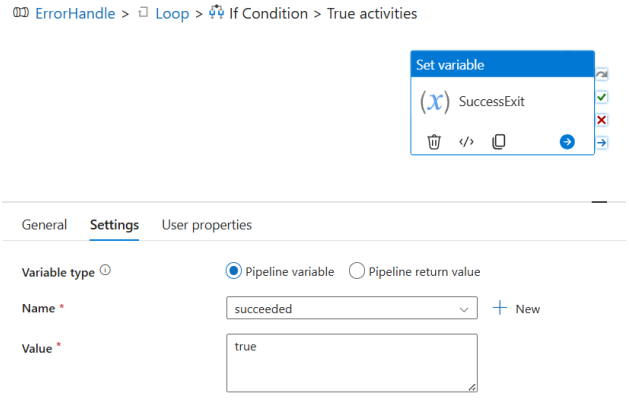


b. Add If Condition after Copy Data operation to check for success:

Value of If Condition: **@equals(activity('Operation').status, 'Succeeded')**

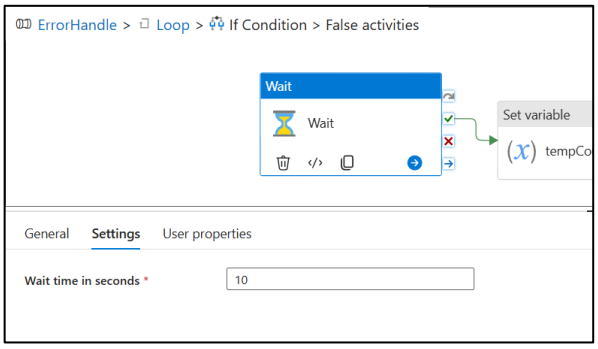


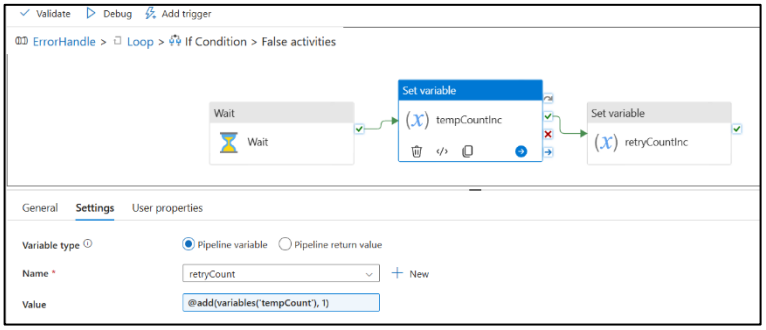
- On **Success** path:
  - Add **Set Variable**: succeeded = true

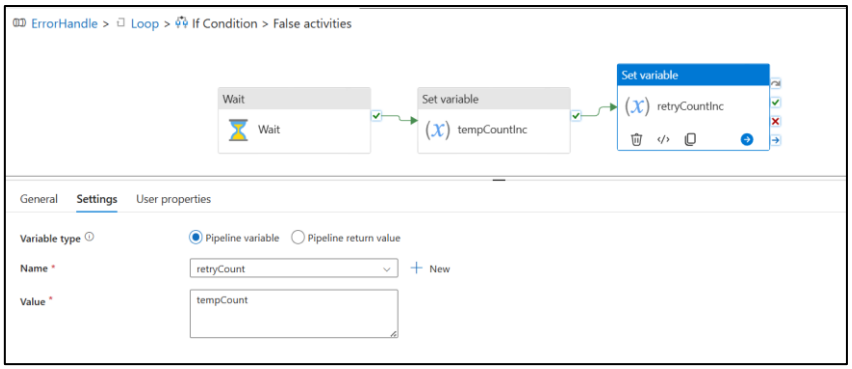


- Else,
  - Add a **Wait** activity: Duration: 10 (seconds)
  - Then add a **Set Variable** to increment tempCount

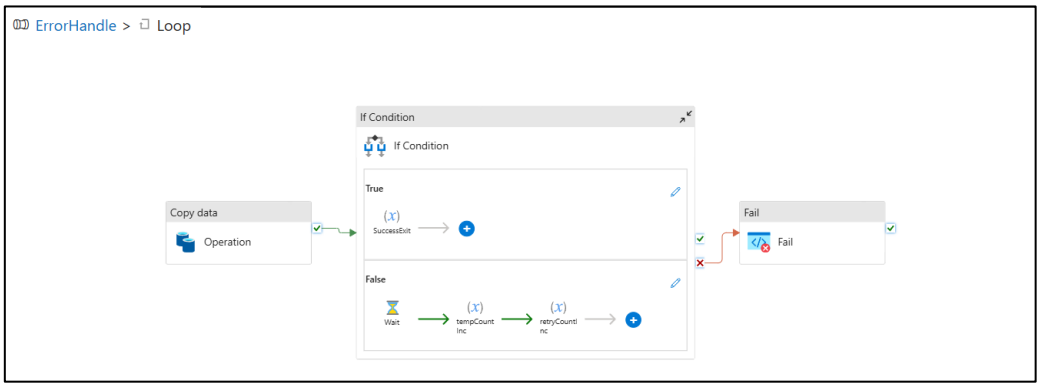
    @add(variables('retryCount'), 1)
  - Set retryCount to tempCount



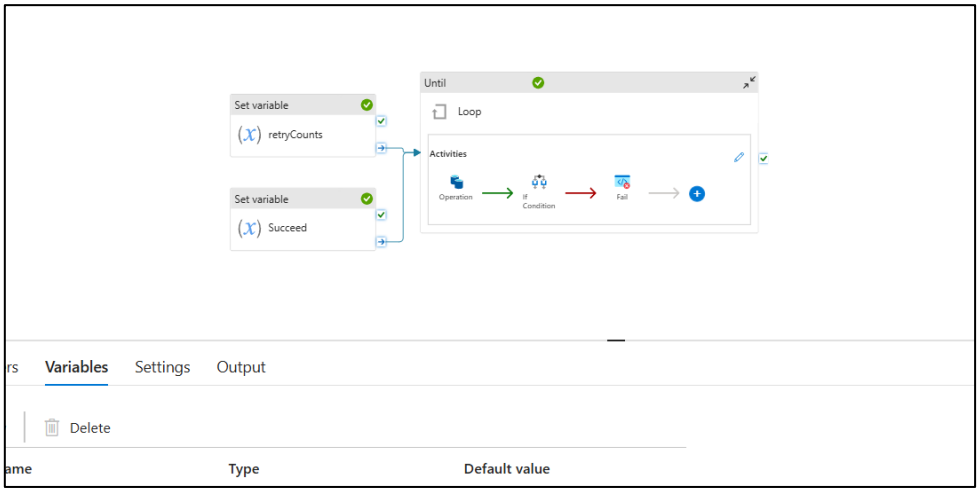




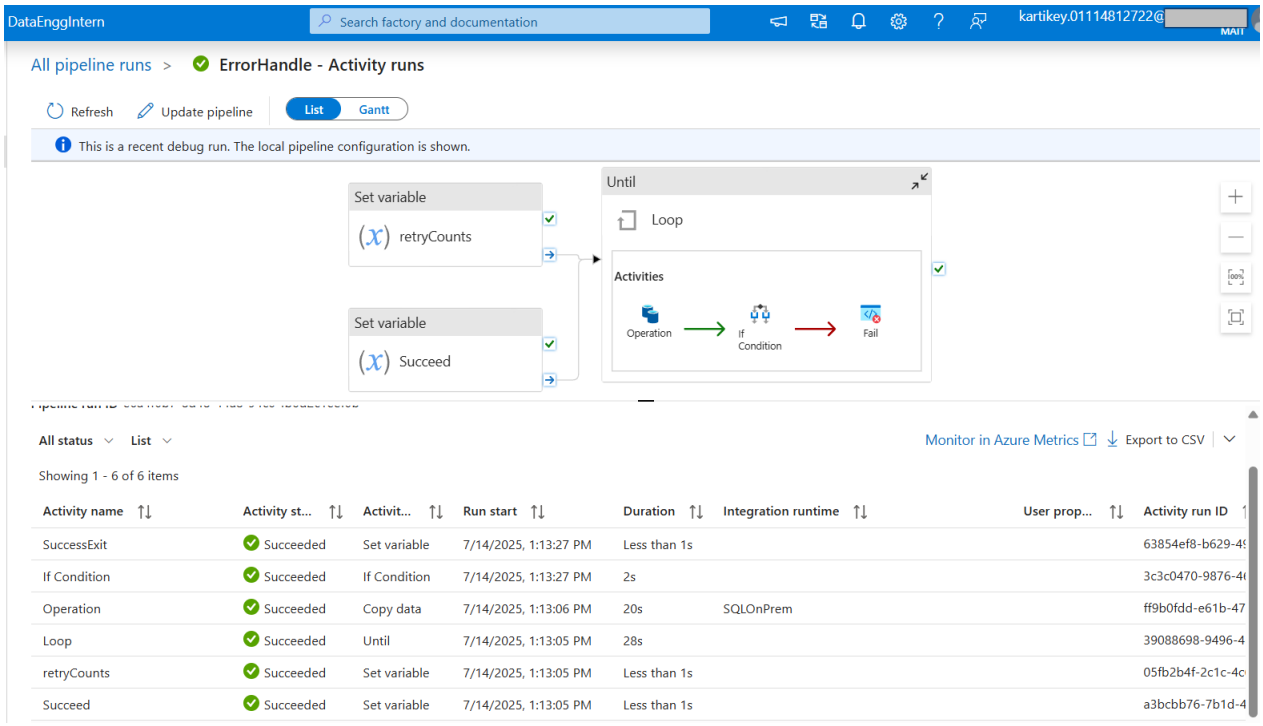
Final Until activity:



Final pipeline:



SUCCESSFUL AUTOMATION:



Activity name	Activity st...	Activit...	Run start	Duration	Integration runtime	User prop...	Activity run ID
SuccessExit	Succeeded	Set variable	7/14/2025, 1:13:27 PM	Less than 1s			63854ef8-b629-4
If Condition	Succeeded	If Condition	7/14/2025, 1:13:27 PM	2s			3c3c0470-9876-4
Operation	Succeeded	Copy data	7/14/2025, 1:13:06 PM	20s	SQLOnPrem		ff9b0fdd-e61b-47
Loop	Succeeded	Until	7/14/2025, 1:13:05 PM	28s			39088698-9496-4
retryCounts	Succeeded	Set variable	7/14/2025, 1:13:05 PM	Less than 1s			05fb2b4f-2c1c-4c
Succeed	Succeeded	Set variable	7/14/2025, 1:13:05 PM	Less than 1s			a3bcbb76-7b1d-4

Method 3: Graceful Failure Handling via OnFailure Path

Use **activity error paths** to handle failure cleanly without failing the pipeline immediately.

This gives you the ability to:

- Log the error
- Wait/retry once or multiple times
- Exit cleanly or alert downstream systems