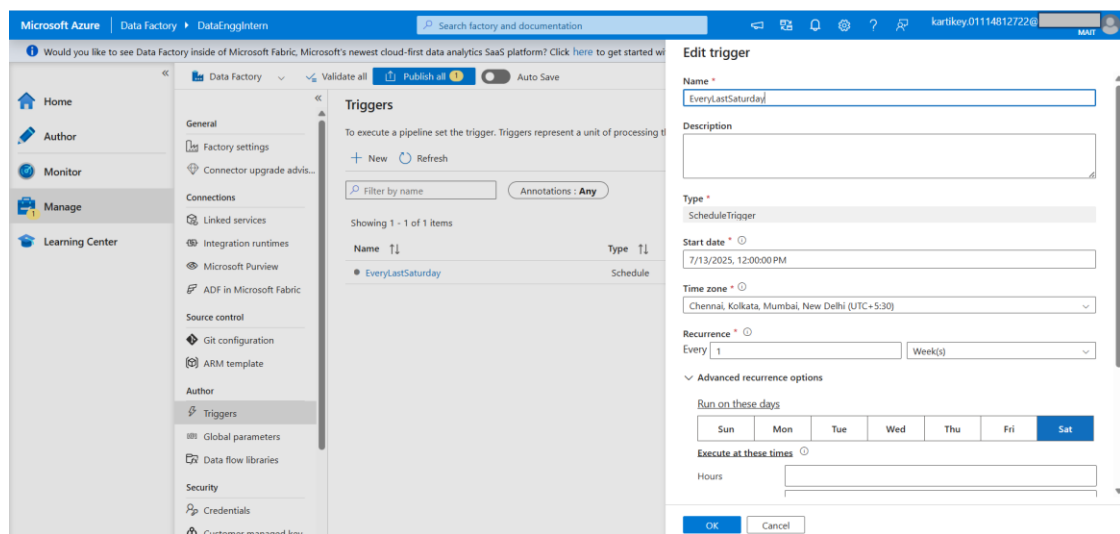## TASK 4

Automate a Pipeline to Trigger Every Last Saturday of the Month: Configure a custom time-based trigger in Azure Data Factory to run the pipeline on the last Saturday of each month. This supports periodic reporting and batch processing without manual intervention.

Step-by-Step Guide

Step 1: Create a Scheduled Trigger (Every Saturday)

1. In ADF, go to **Manage** > **Triggers** > **New**.

2. Set **Recurrence**:

   o **Start date**: Set appropriately

   o **Recurrence**: Weekly

   o **Days**: Only select **Saturday**

3. Save the trigger.
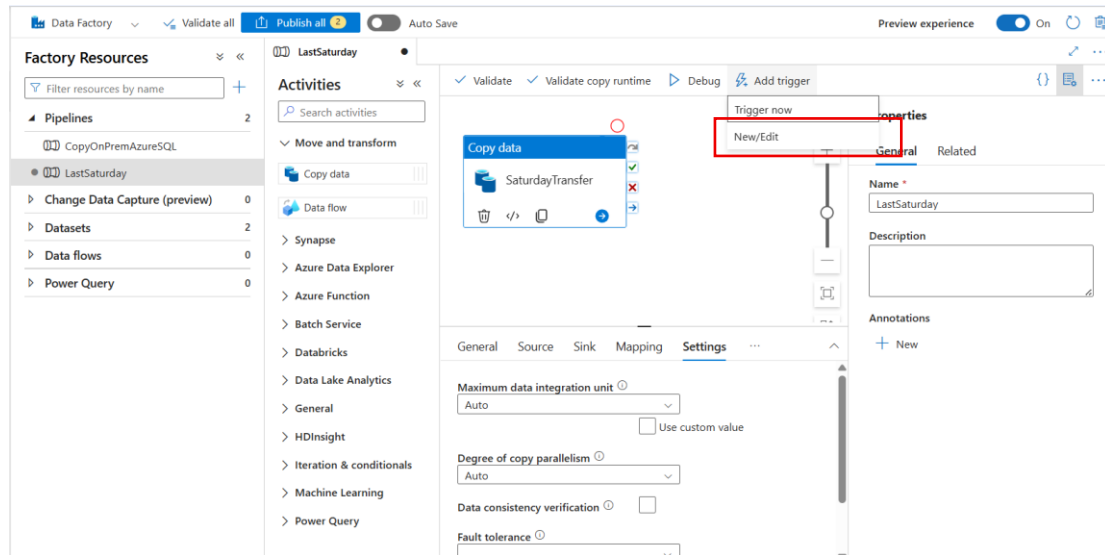
This will run the pipeline every Saturday.

Step 2: Add Logic in Pipeline to Check for Last Saturday

We need to determine if the current date is the **last Saturday** of the month. If yes, continue processing. If not, exit.
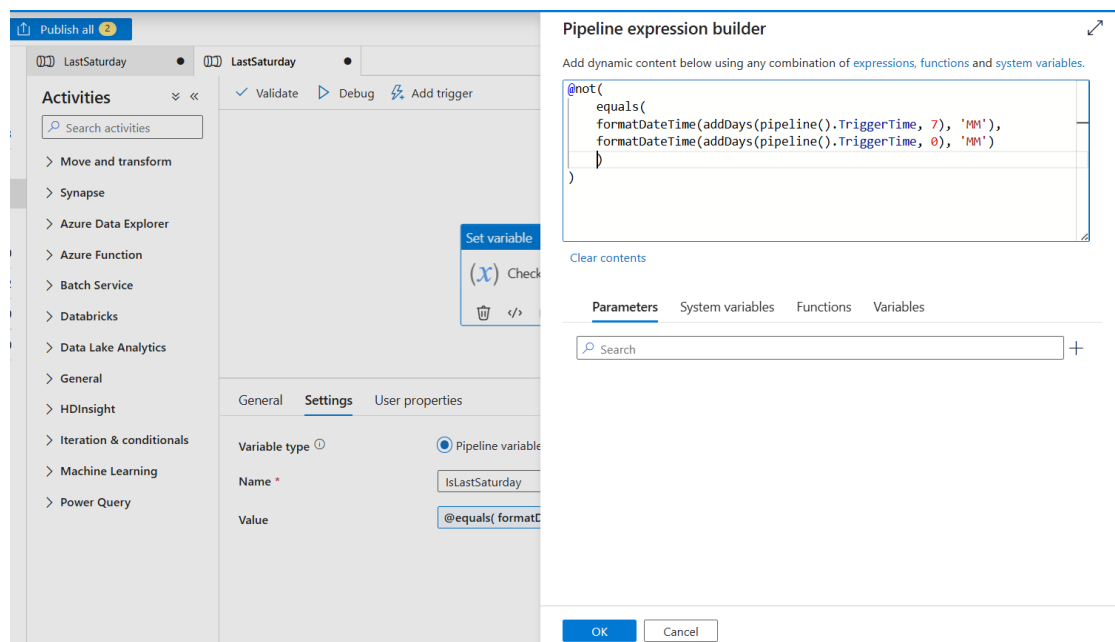
Inside the Pipeline:

1. Add the trigger to the pipeline.

Use an ADF Expression to determine "IsLastSaturday"

Use a **Set Variable** activity with the following logic:

@not(

      equals(

      formatDateTime(addDays(pipeline().TriggerTime, 7), 'MM'),

      formatDateTime(pipeline().TriggerTime, 'MM')

)

)

Explanation:

- This checks if **adding 7 days** to today would **change the month**.
- If **month remains the same**, it's **not the last Saturday**.
- If the **month changes**, today is the **last Saturday**.

Set this value in a Boolean variable IsLastSaturday.

Step 3: Add If Condition Activity

1. Add an **If Condition** activity after the variable is set.

2. Use the condition:

   @variables('IsLastSaturday')

3. **If True**: We proceed with reporting or batch processing logic.

   - In our implementation, we just transfer data from on-premise SQL Server to the Azure SQL.(from Task 1).

4. **If False**: Do nothing

SUCCESSFUL AUTOMATION(Tested using **utcnow()**)

○ Refresh | ⊘ Update pipeline | **List** Gantt

ⓘ Pipeline was modified after this run. The current pipeline configuration is shown.

If Condition ⤢

🔀 CheckLastSaturday

True

📄 DataTransfer

Set variable

𝒙 CheckSaturday ✓ →

Activity runs

Pipeline run ID ff024df0-30bc-4e05-8486-4be09a1f53e0

All status ∨

Monitor in Azure Metrics ↗ ⬇ Export to CSV ∨

Showing 1 - 3 of 3 items

Activity name ↑↓	Activity st... ↑↓	Activit... ↑↓	Run start ↑↓	Duration ↑↓	Integration runtime ↑↓	User prop... ↑↓	Activity run ID
DataTransfer	✓ Succeeded	Copy data	7/14/2025, 9:48:33 AM	28s	SQLOnPrem		4a6947e1-209f-47
CheckLastSaturday	✓ Succeeded	If Condition	7/14/2025, 9:48:32 AM	30s			c00cb604-d2c5-49
CheckSaturday	✓ Succeeded	Set variable	7/14/2025, 9:48:32 AM	Less than 1s			6430923f-940d-47

UPDATED DATA

🔍 Search resources, services, and docs (G+/) | ◆ Copilot ⌄_ ⎗ ♢ ⚙ ⊙ 🖉 kartikey.01114812722@...

bikeStores)

bikeStores) | Query editor (preview) ☆ ⋯ ✕

« | ♟ Login | + New Query | ↑ Open query | ⬅ Feedback | ⊞ Getting started

bikeStores (kartikey.01114812722@

Query 2 ✕

▷ Run | ☐ Cancel query | ⬇ Save query | ↗ Export data as ∨ | ⊞ Show only Editor

ⓘ Showing limited object explorer here. For full capability please click here to open Azure Data Studio.

```
1  SELECT TOP (1000) * FROM [sales].[staff]
```

∨ 🗀 Tables
  › ⊞ sales.staff ⋯
› 🗀 Views
› 🗀 Stored Procedures

Results Messages

1	Fabiola	Jackson	fabiola.jackson@bik...	(831) 555-5554	1
2	Mireya	Copeland	mireya.copeland@bi...	(831) 555-5555	1
3	Genna	Serrano	genna.serrano@bike...	(831) 555-5556	1
4	Virgie	Wiggins	virgie.wiggins@bikes...	(831) 555-5557	1
5	Jannette	David	jannette.david@bike...	(516) 379-4444	1
6	Marcelene	Boyer	marcelene.boyer@bi...	(516) 379-4445	1

✓ Query succeeded | 0s