

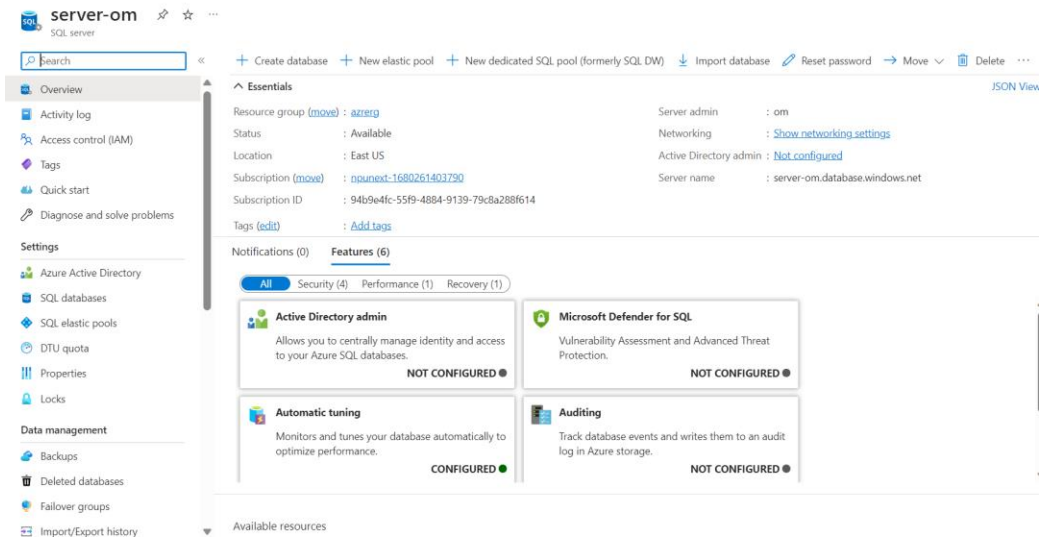
Omshree R Hiremath

Employee Code: 655127

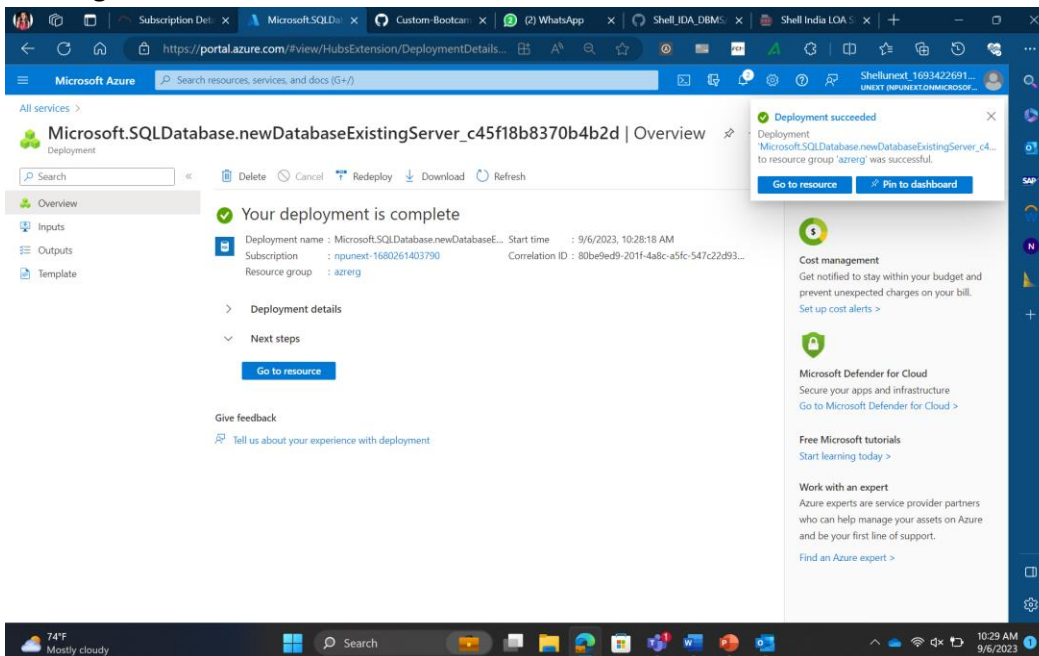
Day 7: Azure Data Factory

Exercise 1: Hands on

1. Creating SQL Server



2. Creating SQL Database



Open query editor and add the given query

Query 1

Run Cancel query Save query Export data as Show only Editor

```
1 CREATE TABLE TotalSale (  
2   id int NOT NULL,  
3   ,SalePersonFName varchar(100) NULL,  
4   ,SalePersonLName varchar(100) NULL,  
5   ,ProductName varchar(100) NULL,  
6   ,ItemsSold int NULL,  
7   ,SoldPrice int NULL,  
8   ,SoldDate date NULL,  
9   ,Country varchar(100) NULL,  
10  ,Region varchar(100) NULL  
11 )
```

Results Messages

Search to filter items...

Query 1

Run Cancel query Save query Export data as Show all

Results Messages

Search to filter items...

id	SalePersonFName	SalePersonLName	ProductName	ItemsSold	SoldPrice	Country	Region
1	Aamir	Shahzad	TV	1	700	USA	North America
2	M	Raza	Cell Phone	2	800	USA	North America
3	Christy	Ladson	TV	3	1600	USA	North America
4	John	Rivers	Laptop	5	2400	USA	North America
5	Najaf	Ali	Computer	1	300	Pakistan	Asia
6	Sukhjeet	Singh	TV	2	900	India	Asia
7	Chirag	Patel	Cell Phone	5	1500	India	Asia
8	Aleena	Aman	Laptop	2	800	Pakistan	Asia
9	Petra	Henry	TV	10	5000	France	Europe
10	Rita	Roger	Laptop	7	2100	France	Europe

3. Linked Services

Create a Linked Service with SQL Azure Database

new linked service

Azure SQL Database Learn more

Name *

AzureSqlDatabase

Description

Connect via integration runtime *

Creating Dataset

Set properties

Name

SqlServer_src

Linked service *

AzureSqlDatabase

Table name

dbo.TotalSale

Edit

Import schema

From connection/store None

‣ Pipelines	1
‣ Change Data Capture (preview)	0
‣ Datasets	3
ds_sink_txt	
ds_src_txt	
SqlServer_src	
‣ Data flows	0
‣ Power Query	0

4. If Condition Activity

Create a Pipeline

Add the following Parameters

Parameters Variables Settings Output			
+ New Delete			
<input type="checkbox"/> Name	Type	Default value	
<input type="checkbox"/> copytoOutput1	String	true	
<input type="checkbox"/> Output1Folder	String	Output1	
<input type="checkbox"/> Output2Folder	String	Output2	

Create a dataset for the destination

Set properties

Name
If_Conditon_dataset

Linked service *
AzureBlobStorage_txt

File path
f-demo / Directory / File name

First row as header ☒

Import schema
☐ From connection/store
 ☐ From sample file
 ☒ None

Add the following Parameters

Connection Schema Parameters

Linked service *
AzureBlobStorage_txt

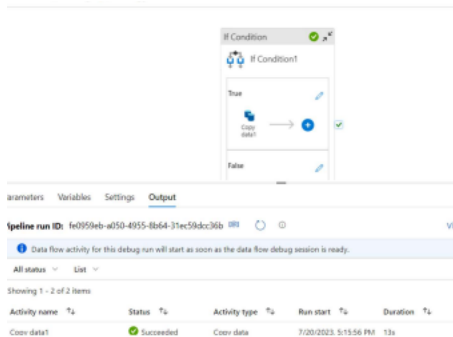
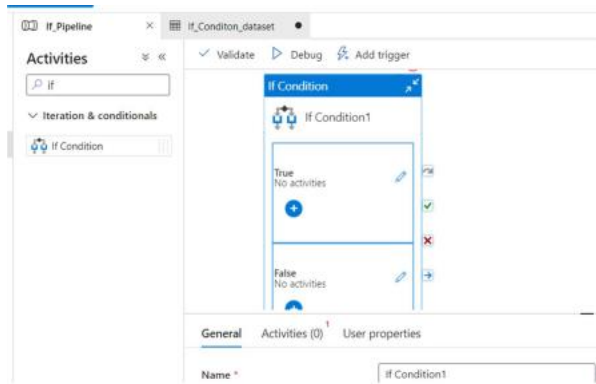
Test connection Edit + New Learn more

File path *
f-demo / @dataset().outputfolder / File name

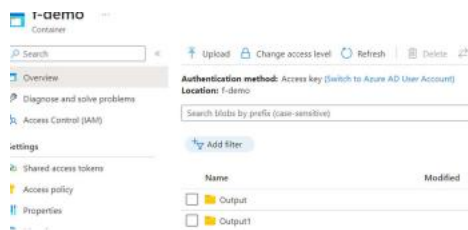
Compression type
None

Column delimiter
Comma (,)

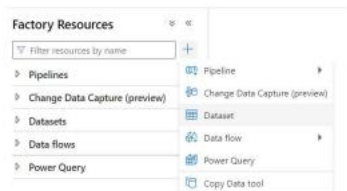
Go to pipeline and drag the condition



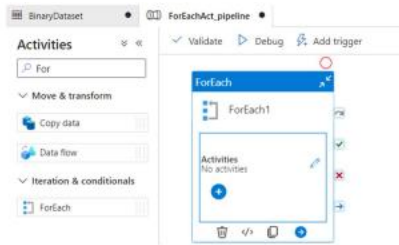
The following shows the output file created



5. For Each Activity Creating Dataset



Drag and drop a for each pipeline



Add the pipeline parameters

Activity name	Activity status	Activity type	Run start	Duration
Copy data1	Succeeded	Copy data	7/28/2023, 10:20:46 AM	8s
Copy data1	Succeeded	Copy data	7/28/2023, 10:20:36 AM	9s
Copy data1	Succeeded	Copy data	7/28/2023, 10:20:25 AM	10s
ForEach1	Succeeded	ForEach	7/28/2023, 10:20:24 AM	32s

Upon going to Destination, folders can be seen

- ☐ output_1
- ☐ output_2
- ☐ output_3

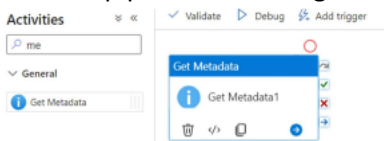
6. Filter Activity

In the case study scenario, we have 2 text files and 1 CSV files

We intend to get the txt file

Name	Modified	Access tier	Archive
<input type="checkbox"/> Customer_Details.csv	7/28/2023, 10:33:14 ...	Hot (Inferred)	
<input type="checkbox"/> EmpDetails.txt	7/28/2023, 10:33:24 ...	Hot (Inferred)	
<input type="checkbox"/> Std_details.txt	7/21/2023, 10:25:48 ...	Hot (Inferred)	

Create a pipeline hand drag and drop “Get Metadata”



Add the filter activity and validate

Showing 1 - 2 of 2 items

Activity name	Activity status	Activity type
Filter1	Succeeded	Filter
Get Metadata1	Succeeded	Get Metadata

Output

```

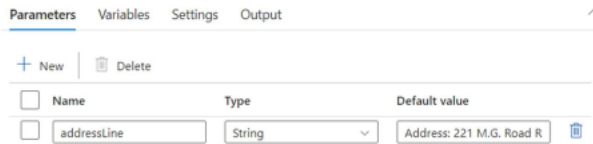
{
  "FilteredItemsCount": 2,
  "Value": [
    {
      "name": "EmpDetails.txt",
      "type": "File"
    },
    {
      "name": "Std_details.txt",
      "type": "File"
    }
  ]
}

```

Activity name	Activity status	Activity type	Run start
Filter1	Succeeded	Filter	7/28/2023
Get Metadata1	Succeeded	Get Metadata	7/28/2023

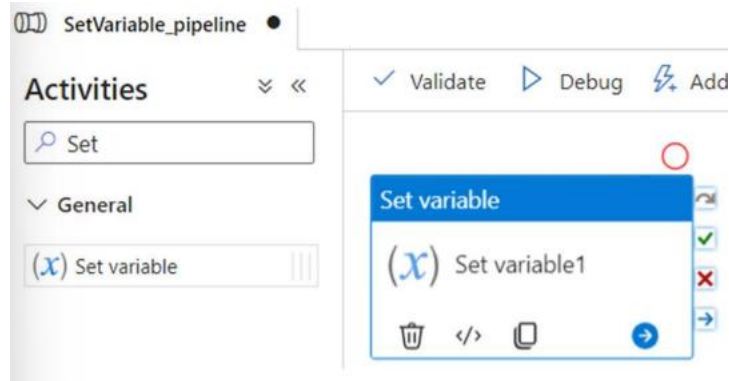
7. Set Variable Activity

Create a pipeline and add the following parameters

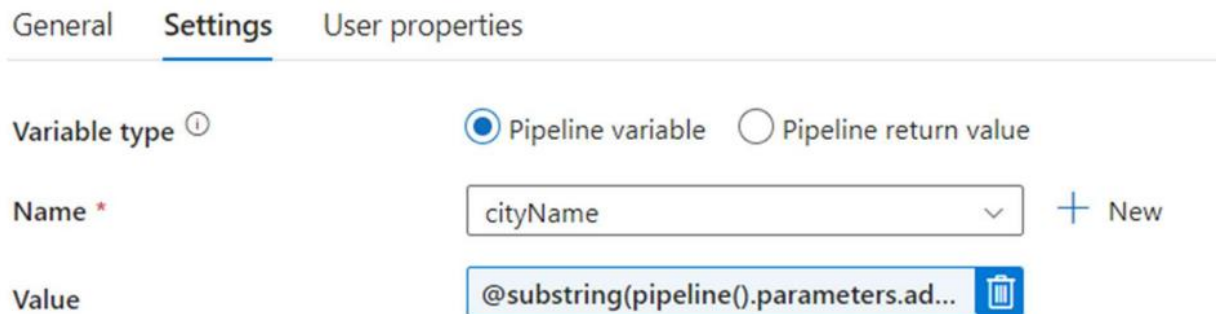


Name	Type	Default value
addressLine	String	Address: 221 M.G. Road R

Drag and Drop the Set Variable



Add the following expression



General **Settings** User properties

Variable type ? ☒ Pipeline variable ☐ Pipeline return value

Name * cityName + New

Value @substring(pipeline().parameters.ad... 🗑️

Check the output tab

```
{
  "name": "cityName",
  "value": "Kolkata"
}
```

8. Exercise: Append Variable

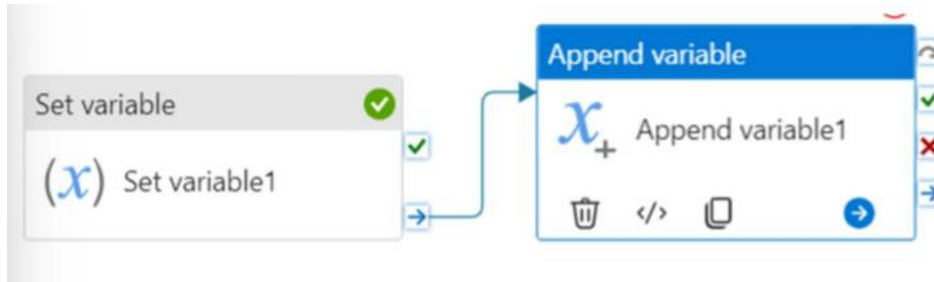
In the set variable pipeline, add two more variables

Parameters **Variables** Settings Output

+ New | Delete

<input type="checkbox"/>	Name	Type	Default value
<input type="checkbox"/>	cityName	String	Value
<input type="checkbox"/>	listOfCities	Array	["New York","London","Tokyo",
<input type="checkbox"/>	appendedCities	Array	Value

Drag and drop append variable activity



Pipeline executed successfully

✓ Validate ▶ Debug ⚙ Add trigger

```
graph LR; A[Set variable] --> B[Append variable] --> C[Set variable]
```

Parameters Variables Settings **Output**

Pipeline run ID: 79f1bfa0-ac7a-40ea-93d8-bb72064e59c3 **Pipeline status** Succeeded

All status ▾

Showing 1 - 3 of 3 items

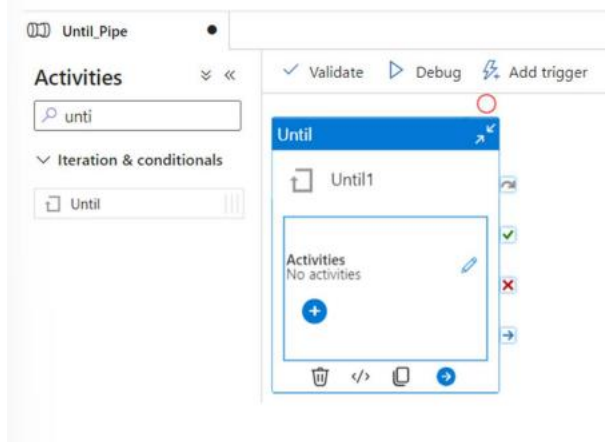
Activity name	Activity status	Activity type	Run start	Duration
Set variable2	Succeeded	Set variable	7/28/2023, 3:56:36 PM	Less than 1s
Append variable1	Succeeded	Append variable	7/28/2023, 3:56:35 PM	Less than 1s
Set variable1	Succeeded	Set variable	7/28/2023, 3:56:35 PM	Less than 1s

Output tab

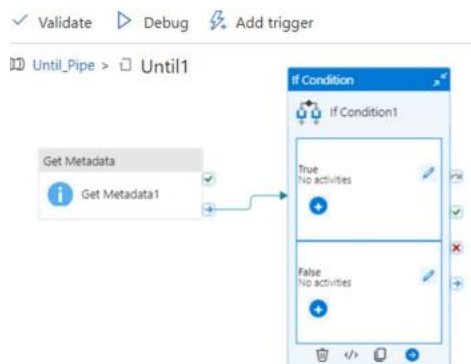
```
{
  "name": "appendedCities",
  "value": [
    "New York",
    "London",
    "Tokyo",
    "Singapore City",
    "Kolkata"
  ]
}
```

9. Until Activity:

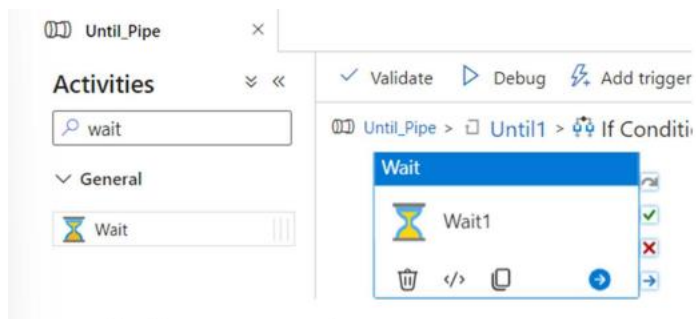
Create new pipeline and create a variable
Drag and drop the Until Activity



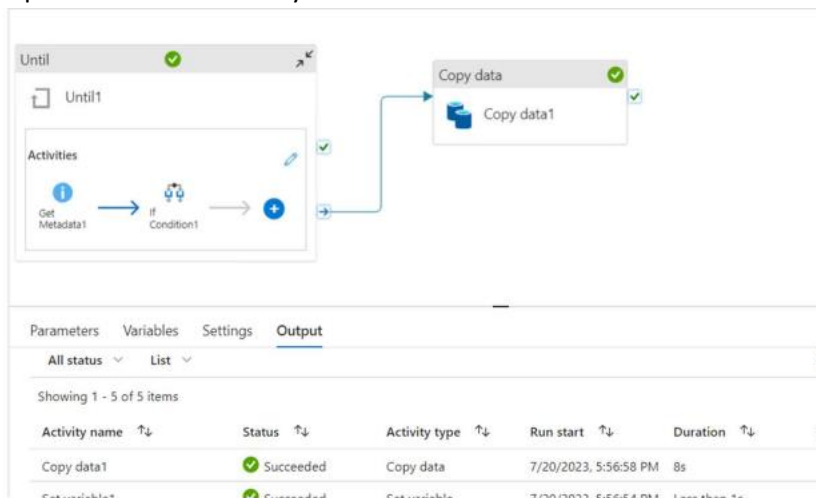
Make a connection with the if condition



Using the wait cativity



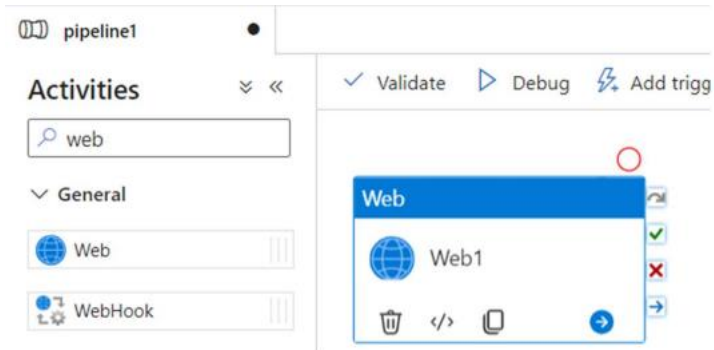
Pipeline runs successfully



Check the output files

<input type="checkbox"/>	[-]		
<input type="checkbox"/>	_SUCCESS	7/20/2023, 4:09:54 PM	Hot (Inferred)
<input type="checkbox"/>	part-00000-e6862a16-47ef-4712-a2dc-d150acfb6f...	7/20/2023, 4:09:54 PM	Hot (Inferred)
<input type="checkbox"/>	Std_details.txt	7/20/2023, 5:57:05 PM	Hot (Inferred)

10. Web Activity Exercise



Set the URL and Method

General **Settings** User properties

URL * ⓘ

⚠ Information will be sent to the URL specified. Please ensure you trust the URL entered.

Method * ⓘ

Authentication ⓘ

Output:

