

Variables

Utilizar variables para agregar la fecha del sistema a un archivo de salida

Para explicar este punto, vamos a comenzar desde donde dejamos el desarrollo del ejemplo del punto 8C donde se copiaron datos desde una tabla de Azure SQL Database hacia un archivo de texto delimitado en Azure Data Lake Storage y en donde utilizando una **EXPRESIÓN** se creó una extensión para el archivo de salida.

Desde el pipeline, vamos a pulsar en cualquier sitio sobre el lienzo

The screenshot shows the Microsoft Azure Data Factory interface. On the left, the 'Factory Resources' pane lists various resources including Pipelines, Datasets, and Data flows. The 'Activities' pane on the right lists various activities like Move & transform, Azure Data Explorer, etc. The main canvas shows a 'Copy data' activity named 'Copy_Table_ASQ_LADLS'. Below the canvas, the 'Parameters' and 'Variables' tabs are visible. The 'Variables' tab is selected, showing a table with columns for Name, Type, and Default value.

Name	Type	Default value
DataBaseName	String	azureAdventureWorksDW
TableName	String	Value

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Data Factory | Validate all | Publish all

Factory Resources

Filter resources by name

- Pipeline (3)
 - 1. Ingesta (1)
 - 2. Move and Transform Activit... (2)
 - Cliente_Copy_Cliente_Excel_ASQL
 - Table_Copy_Table_ASQL_ADLS
- Dataset (6)
 - 1. Ingesta (2)
 - 2. Move and transform Activit... (4)
 - ADLS_DataLakeUdemyLaboratori...
 - ADLS_DataLakeUdemyLaboratori...
 - ASQL_AWDW_Table
 - ASQL_DB_Curso_ADF_Cliente
- Data flows (0)
- Power Query (0)

Activities

Search activities

- Move & transform
- Azure Data Explorer
- Azure Function
- Batch Service
- Databricks
- Data Lake Analytics
- General
- HDInsight
- Iteration & conditionals
- Machine Learning
- Power Query

Copy data

Copy_Table_ASQL_ADLS

Parameters Variables Settings Output

+ New Delete

Name	Type	Default value
FileName	String	Value

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Factory Resources

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 - ASQL_DB_Curso_ADF_Cliente
- Data flows (0)
- Power Query (0)

Activities

Search activities

- Execute Pipeline
- Execute SSIS package
- Fail
- Get Metadata
- Lookup
- Stored procedure
- Set variable
- Validation
- Web
- WebHook
- Wait

Set variable

(X) Set variable FileName

Copy data

Copy_Table_ASQL_ADLS

General Variables User properties

Name * Set variable FileName [Learn more](#)

Description

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Factory Resources

- Pipeline
 - 1. Ingesta
 - 2. Move and Transform Activi...
 - Cliente_Copy_Cliente_Excel_ASQL
 - Table_Copy_Table_ASQL_ADLS
- Dataset
 - 1. Ingesta
 - 2. Move and transform Activi...
 - ADLS_DataLakeUdemyLaboratori...
 - ADLS_DataLakeUdemyLaboratori...
 - ASQL_AWDW_Table
 - ASQL_DB_Curso_ADF_Cliente
- Data flows
- Power Query

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- Wait

Set variable

(X) Set variable FileName

Copy data

Copy_Table_ASQL_ADLS

General Variables User properties

Name * FileName

Value *

Add dynamic content [Alt+Shift+D]

Existen las variables de sistema y de usuario

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Factory Resources

- Pipeline
 - 1. Ingesta
 - 2. Move and Transform Activi...
 - Cliente_Copy_Cliente_Excel_ASQL
 - Table_Copy_Table_ASQL_ADLS
- Dataset
 - 1. Ingesta
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 - ADLS_DataLakeUdemyLaboratori...
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Activities

- Execute Pipeline
- Execute SSIS package
- Fail
- Get Metadata
- Lookup
- Stored procedure
- (X) Set variable
- Validation
- Web
- WebHook
- Wait

Set variable

(X) Set variable

General Variables

Name *

Value *

Add dynamic content

Clear contents

Add dynamic content above using any combination of expressions, functions and system variables. Click any of the available System variables or Functions below to add them directly:

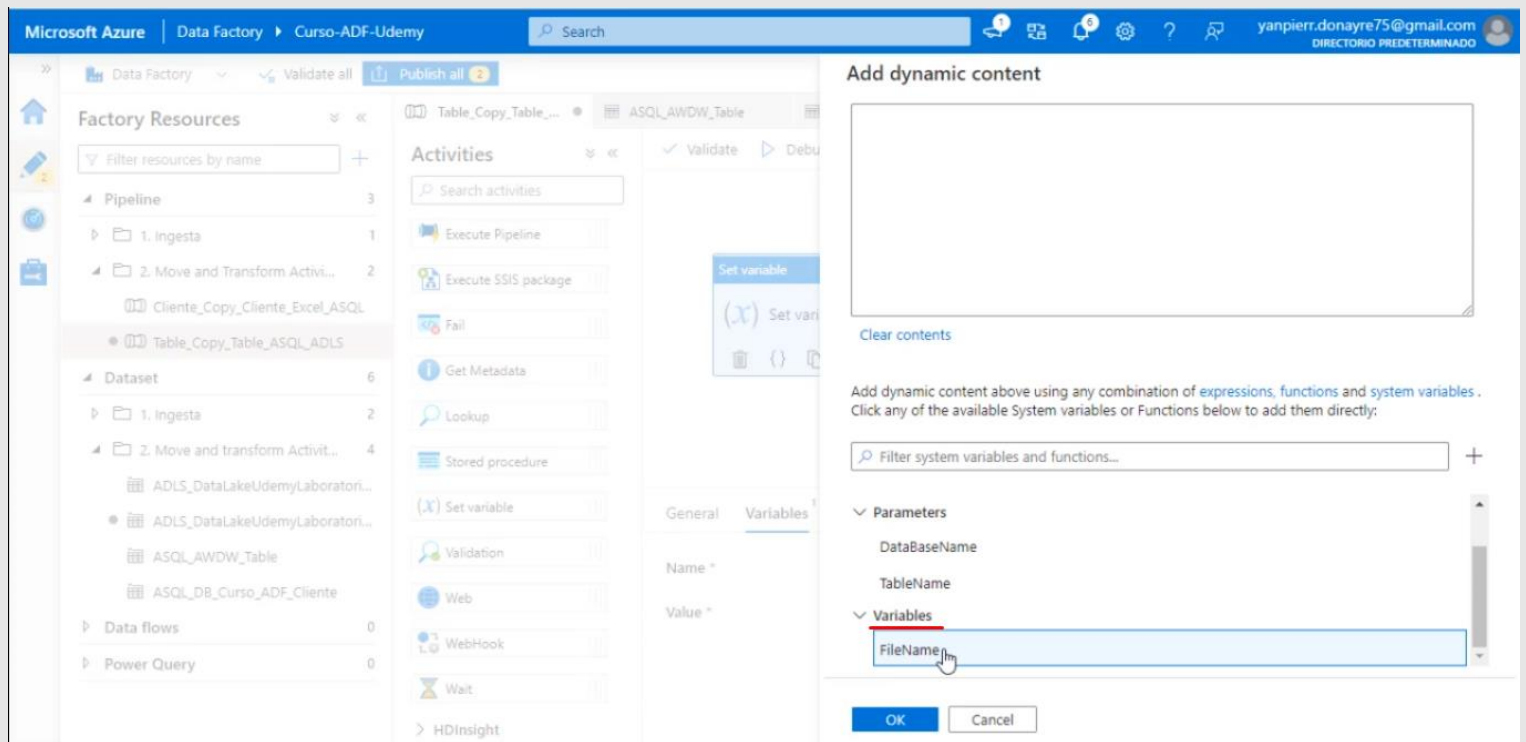
Filter system variables and functions...

System variables

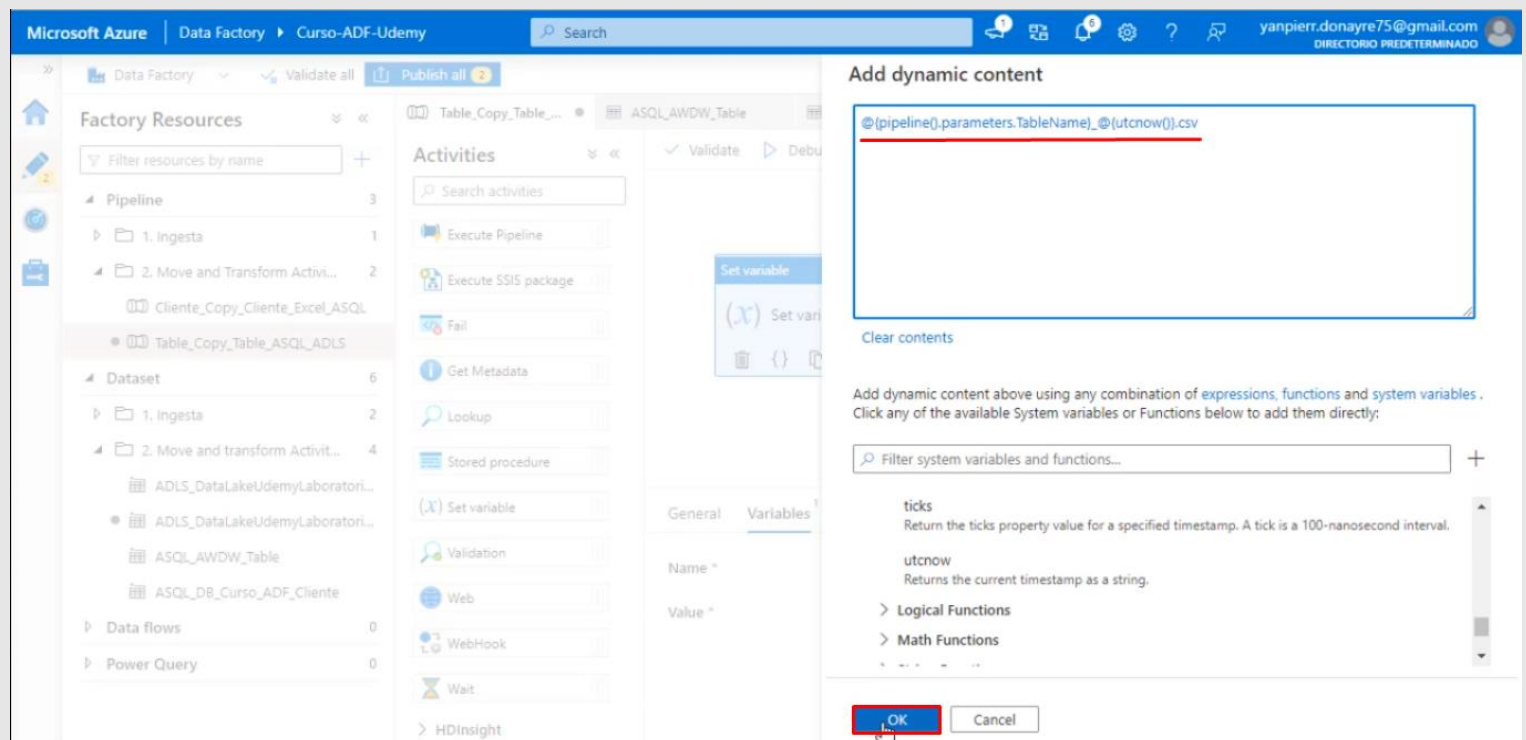
- Data factory name
Name of the data factory the pipeline run is running within
- Pipeline Name
Name of the pipeline
- Pipeline group ID

OK Cancel

Las variables de usuario, es decir, aquellas que nosotros hemos creado



The screenshot shows the Microsoft Azure Data Factory interface. On the left, the 'Factory Resources' pane shows a hierarchy of Pipelines, Datasets, and Data flows. The 'Activities' pane shows a list of tasks, including 'Set variable'. The 'Add dynamic content' dialog box is open, with the 'Variables' section expanded. The 'FileName' variable is selected. The 'Set variable' task is visible in the background, with the 'Name' field set to 'FileName'.



The screenshot shows the Microsoft Azure Data Factory interface. On the left, the 'Factory Resources' pane shows a hierarchy of Pipelines, Datasets, and Data flows. The 'Activities' pane shows a list of tasks, including 'Set variable'. The 'Add dynamic content' dialog box is open, with the 'Variables' section expanded. The expression '@(pipeline().parameters.TableName)_@([utcnow()]).csv' is entered in the text box. The 'Set variable' task is visible in the background, with the 'Name' field set to 'FileName'.

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Factory Resources

- Pipeline: 3
 - 1. Ingesta: 1
 - 2. Move and Transform Activi...: 2
 - Cliente_Copy_Cliente_Excel_ASQ...
 - Table_Copy_Table_ASQ_LADLS
- Dataset: 6
 - 1. Ingesta: 2
 - 2. Move and transform Activi...: 4
 - ADLS_DataLakeUdemyLaboratori...
 - ADLS_DataLakeUdemyLaboratori...
 - ASQ_LAWDW_Table
 - ASQ_LDB_Curso_ADF_Cliente
- Data flows: 0

Activities

- Execute Pipeline
- Execute SSIS package
- Fail
- Get Metadata
- Lookup
- Stored procedure
- (X) Set variable
- Validation
- Web
- WebHook

Set variable

(X) Set variable FileName

Copy data

Copy_Table_ASQ_LADL

General Variables User properties

Name * FileName

Value @pipeline().parameters.TableName_...

Conectamos las dos actividades y desde la actividad **Copy Data**, en su pestaña **Sink**

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Factory Resources

- Pipeline: 3
 - 1. Ingesta: 1
 - 2. Move and Transform Activi...: 2
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 - Table_Copy_Table_ASQ_LADLS
- Dataset: 6
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 - 2. Move and transform Activi...: 4
 - ADLS_DataLakeUdemyLaboratori...
 - ADLS_DataLakeUdemyLaboratori...
 - ASQ_LAWDW_Table
 - ASQ_LDB_Curso_ADF_Cliente
- Data flows: 0
- Power Query: 0

Activities

- Execute Pipeline
- Execute SSIS package
- Fail
- Get Metadata
- Lookup
- Stored procedure
- (X) Set variable
- Validation
- Web
- WebHook
- Wait

Set variable

(X) Set variable FileName

Copy data

Copy_Table_ASQ_LADL

General Source Sink Mapping Settings User properties

Sink dataset * ADLS_DataLakeUdemyLaboratorio_T...

Dataset properties

Name	Value	Type
TableName	@pipeline().parameters.TableName	String

Copy behavior None

Max concurrent connections

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Factory Resources

Filter resources by name

- Pipeline 3
 - 1. Ingesta 1
 - 2. Move and Transform Activi... 2
 - Cliente_Copy_Cliente_Excel_ASQ...
 - Table_Copy_Table_ASQ_LADLS
- Dataset 6
 - 1. Ingesta 2
 - 2. Move and transform Activit... 4
 - ADLS_DataLakeUdemeyLaboratori...
 - ADLS_DataLakeUdemeyLaboratori...
 - ASQ_LAWDW_Table
 - ASQ_DB_Curso_ADF_Cliente
- Data flows 0
- Power Query 0

Activities

Search activities

- Execute Pipeline
- Execute SSIS package
- Fail
- Get Metadata
- Lookup
- Stored procedure
- (X) Set variable
- Validation
- Web
- WebHook
- Wait

Add dynamic content

@variables('FileName')

Clear contents

Add dynamic content above using any combination of expressions, functions and system variables. Click any of the available System variables or Functions below to add them directly:

Filter system variables and functions...

- Parameters
 - DataBaseName
 - TableName
- Variables
 - FileName

OK Cancel

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Factory Resources

Filter resources by name

- Pipeline 3
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 - ASQ_DB_Curso_ADF_Cliente
- Data flows 0
- Power Query 0

Activities

Search activities

- Execute Pipeline
- Execute SSIS package
- Fail
- Get Metadata
- Lookup
- Stored procedure
- (X) Set variable
- Validation
- Web
- WebHook
- Wait

Copy data

Set variable (X) Set variable FileName

Copy data

Copy_Table_ASQ_LADLS

General Source Sink Mapping Settings User properties

Sink dataset * ADLS_DataLakeUdemeyLaboratorio... **Open** + New Learn more

Name	Value	Type
TableName	<u>@variables('FileName')</u>	String

Copy behavior None

Max concurrent connections

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Factory Resources

- Pipeline: 3
 - 1. Ingesta: 1
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 - ASQ...DB_Curso_ADF_Cliente: 1
- Data flows: 0
- Power Query: 0

DelimitedText
ADLS_DataLakeUdemyLaboratorio_Table

Connection Schema Parameters

Linked service * LinkedServices_ADLS_DataLakeUde... Test connection Edit + New Learn more

File path * dataset / 1. Move and Transform / @toUpper(dataset().TableName).csv

Compression type None

Column delimiter Pipe (|) Edit

Row delimiter Default (\r\n, or \n\r) Edit

Solo eliminamos la extensión del archivo **.csv**, dado que ya la indicamos cuando creamos la variable

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Factory Resources

- Pipeline: 3
 - 1. Ingesta: 1
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 - ASQ...AWDW_Table: 1
 - ASQ...DB_Curso_ADF_Cliente: 1
- Data flows: 0
- Power Query: 0

DelimitedText
ADLS_DataLakeUdemyLaboratorio_Table

Connection Schema Parameters

Linked service * LinkedServices_ADLS_DataLakeUde... Test connection Edit + New Learn more

File path * dataset / 1. Move and Transform / @toUpper(dataset().TableName)

Compression type None

Column delimiter Pipe (|) Edit

Row delimiter Default (\r\n, or \n\r) Edit

Add dynamic content

```
@{
  toUpper(
    dataset().TableName
  )
}
```

Clear contents

Add dynamic content above using any combination of **expressions**, **functions** and **system variables**. Click any of the available System variables or Functions below to add them directly:

Filter system variables and functions...

> Functions

> Parameters

TableName

OK Cancel

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Validate all Publish all

Factory Resources

Filter resources by name

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 - ASQL_DB_Curso_ADF_Cliente
- Data flows 0
- Power Query 0

DelimitedText
ADLS_DataLakeUdemyLaboratorio_Table

Table_Copy_Table_... ASQL_AWDW_Table ADLS_DataLakeUde...

Connection Schema Parameters

Linked service * LinkedServices_ADLS_DataLakeUde... Test connection Edit + New Learn more

File path * dataset / 1. Move and Transform / @({ toUpper(dataset().TableName) } Browse Preview d

Compression type None

Column delimiter Pipe (|) Edit

Row delimiter Default (\r\n or \n) Edit

Validamos, Publicamos y Ejecutamos.

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Validate all Publish all

Factory Resources

Filter resources by name

- Pipeline 3
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Activities

Search activities

- Execute Pipeline
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- Fail
- Get Metadata
- Lookup
- Stored procedure
- (X) Set variable
- Validation
- Web

Validate Debug Add trigger Trigger now New/Edit

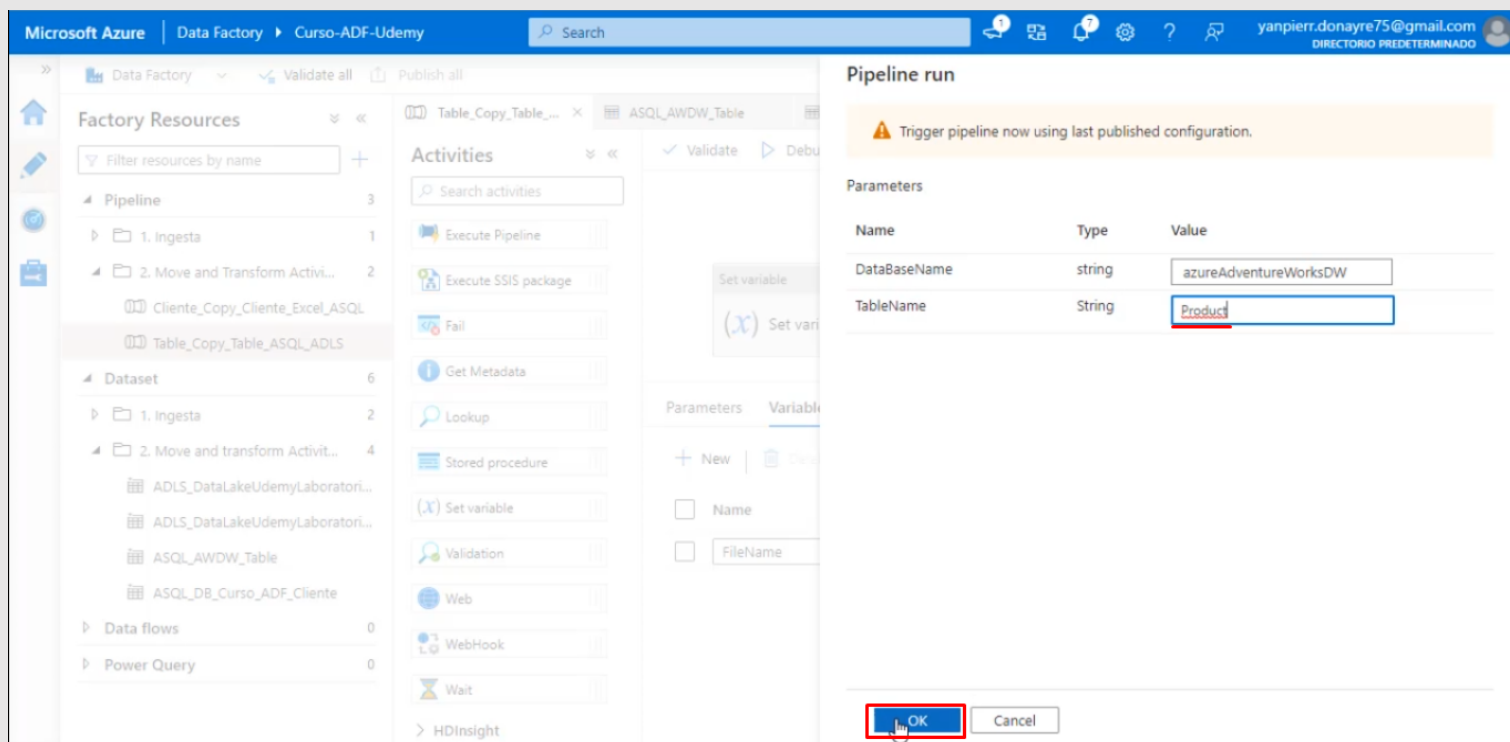
Set variable (X) Set variable FileName

Copy data Copy_Table_ASQL_ADLS

Parameters Variables Settings Output

+ New Delete

Name	Type	Default value
FileName	String	Value



A nivel de Variable: `FileName : @{pipeline().parameters.TableName}_@{utcnow()}.csv`

A nivel de Pipeline: `DataBaseName : @pipeline().parameters.DataBaseName`

`DataBaseName: azureAdventureWorksDW` <-- Este valor quedará ESTÁTICO

`TableName: Product` <-- Ingresamos este valor al momento de ejecutar el Pipeline

`TableName : @variables('FileName')` <-- Este contenido dinámico es solo para el Sink del Pipeline

A nivel de Dataset de origen: `DataBaseName : @database().DataBaseName`

`DataBaseName: azureAdventureWorksDW`

`Tabla origen: @dataset().TableName`

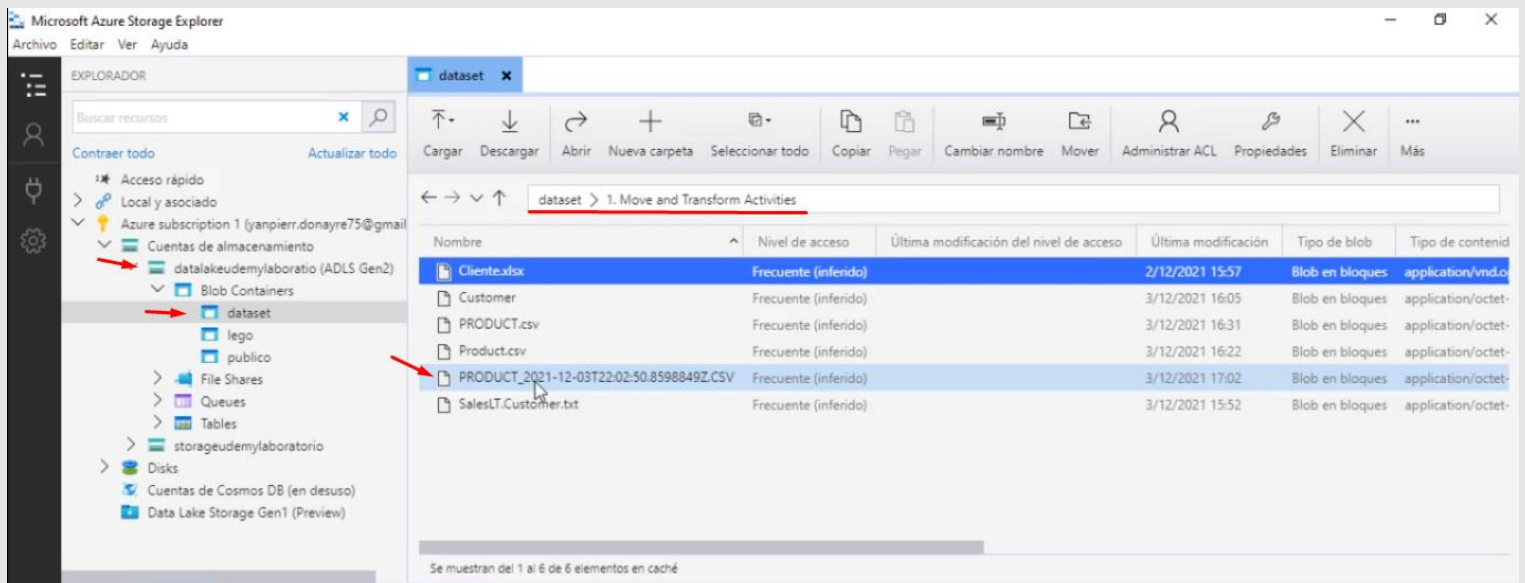
`Tabla origen: Product`

A nivel de Dataset de destino: `Archivo de salida : @toUpper(dataset().TableName)}`

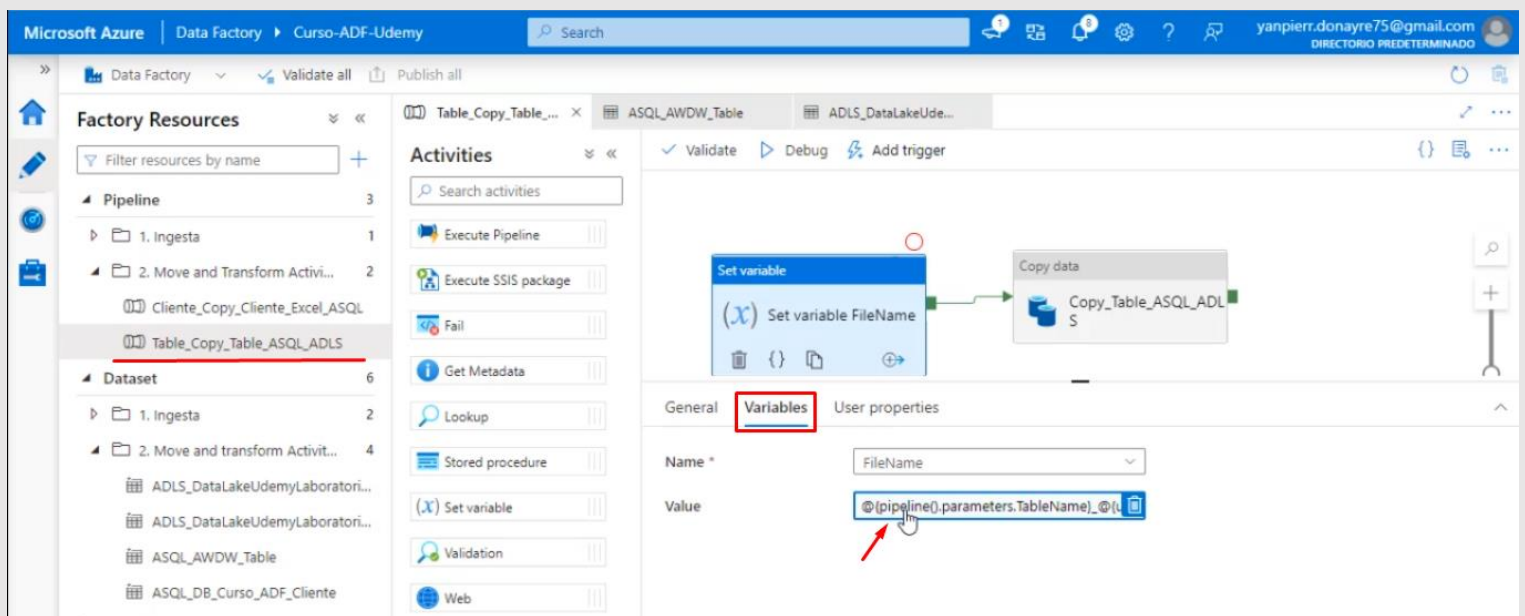
`Archivo de salida: PRODUCT_2023-05-18T12:33:39.6789394Z.CSV`

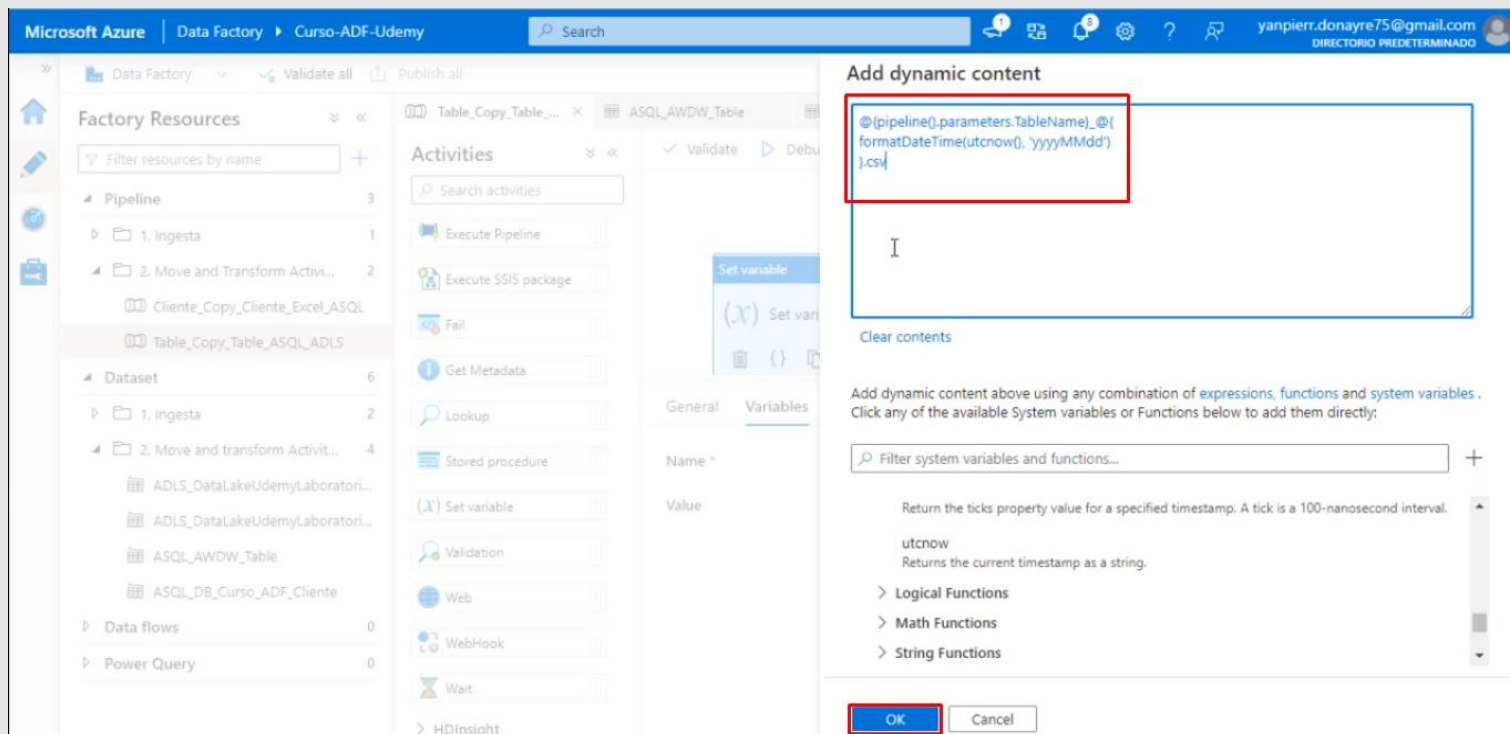
A nivel de Linked Service de origen: `Database name : @linkedService().DataBaseName`

`Database name: azureAdventureWorksDW`

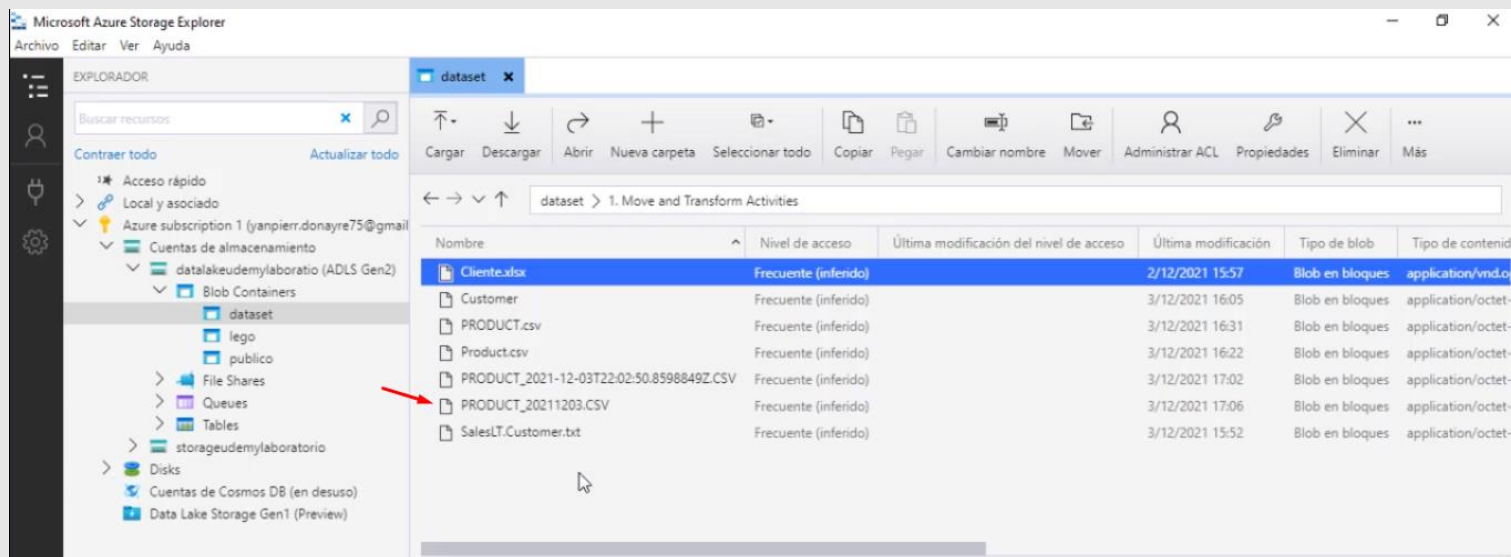


Pero en el nombre del archivo solo queremos que nos muestre la fecha en el formato **YYMMDD**. Para ello haremos la siguiente modificación





Por tanto, el resultado obtenido sería el siguiente



A nivel de Variable: FileName : @{pipeline().parameters.TableName}_@{formatDateTime(utcnow(), 'yyyyMMdd')}.csv

A nivel de Pipeline: DataBaseName : @pipeline().parameters.DataBaseName

DataBaseName: azureAdventureWorksDW <-- Este valor quedará ESTÁTICO

TableName: Product <-- Ingresamos este valor al momento de ejecutar el Pipeline

TableName : @variables('FileName') <-- Este contenido dinámico es solo para el Sink del Pipeline

A nivel de Dataset de origen: DataBaseName : @database().DataBaseName

DataBaseName: azureAdventureWorksDW

Tabla origen: @dataset().TableName

Tabla origen: Product

A nivel de Dataset de destino: Archivo de salida : @{toUpper(dataset().TableName)}

Archivo de salida: PRODUCT_2023-05-18T12:33:39.6789394Z.CSV

A nivel de Linked Service de origen: Database name : @linkedService().DataBaseName

Database name: azureAdventureWorksDW