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The **Tabular Translator** is a component of the **Copy Data** activity responsible for setting column mappings, schema mappings, data type conversions, and more. We can use the Tabular Translator properties to build a JSON script to dynamically control the

FOLLOW:



```
10].[FactInternetSales_large]...  
Sales.csv'---Location of the f:  
it'---External datasource nam  
---Specified datafile type  
...  
For faster performance across  
the transaction logs for insi
```

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I have a post that already shows how to use the Tabular Translator and a SQL procedure to dynamically build column mappings in my post [Dynamically Set Copy Activity Mappings in Azure Data Factory v2](#).

Since I have received plenty of questions on how to map JSON, CSV, Excel sources, I thought I'd show you how to get the Tabular Translator template yourself based on your setup so that you can start dynamically building your JSON translator.

## Building the Template

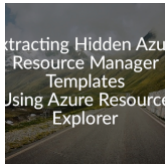
To extract a working Tabular Translator template for dynamic manipulation, we need to build the pipeline to achieve our data loading goal. For demonstration purposes, my goal is to dynamically map JSON file columns & schema to my target Azure SQL Database table. Without knowing the Tabular Translator's required syntax, it would be impossible for me to create it out of the box. Therefore, I will build a working example first.

I have already created the pipeline to extract the Tabular Translator. I won't



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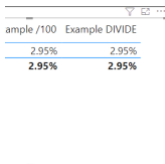
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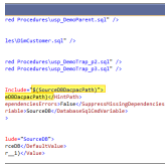
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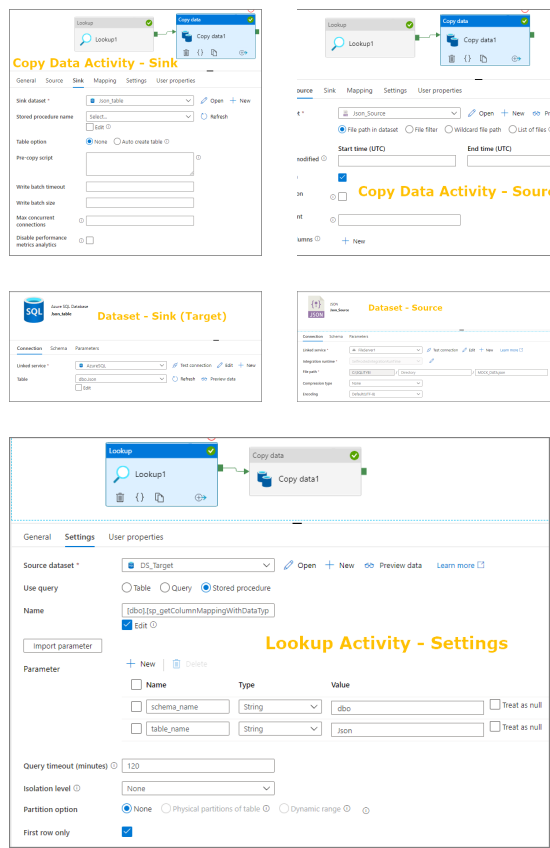
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those. Instead, I will focus on the crucial part: the **Mapping** tab of the **Copy Data** activity.



The most important part is setting up the Copy Data activity Mappings manually for the first time. For this simple demonstration, I used **Import Schemas**, which was sufficient to return the mapping. As you can see in the below image, we have the source column, data type, and target column.

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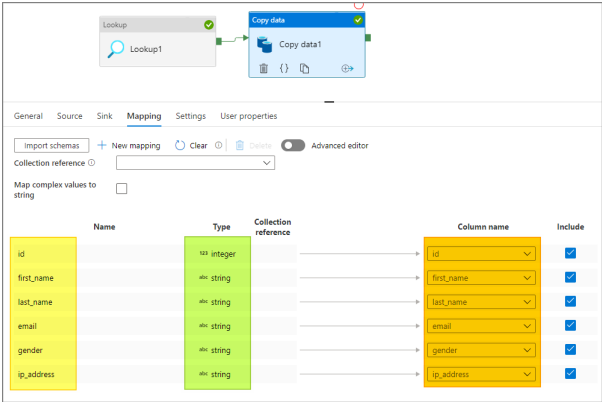
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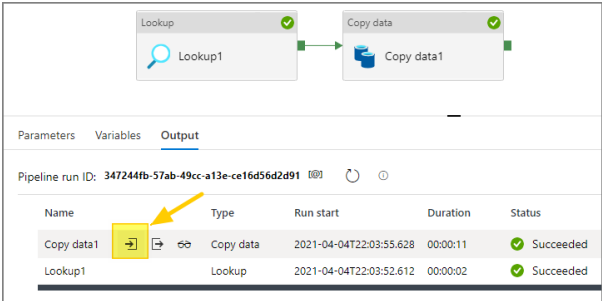
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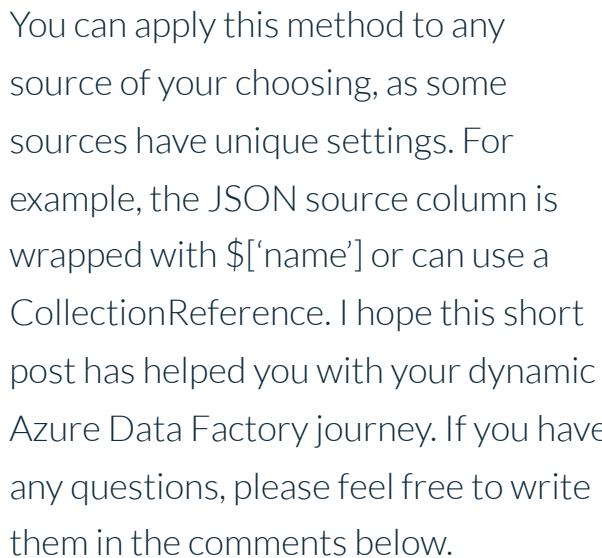
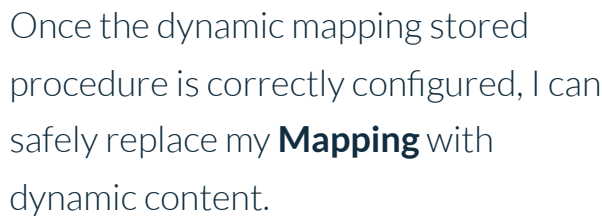
Once you have a working pipeline setup, you can run the pipeline. After running the pipeline, you need to find the **Copy Data activity's output** in the **Output** window. In the Output window, click on the **Input** button to reveal the JSON script passed for the Copy Data activity.



When the JSON window opens, scroll down to the section containing the text **TabularTranslator**. This section is the part that you need to use as a template for your dynamic script. You can see how I have used the template to map my dynamic stored procedure to achieve the same result dynamically in

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Awesome! 😊

👍 0 🗨️ Reply



**ram**

🕒 11 months ago

How to implement this process when the input is a complex nested json and also has dynamic structure ?

👍 0 🗨️ Reply



**Jesse**

Author

🗨️ Reply to [ram](#) 🕒 11 months ago

Someone already asked a similar question on another post of mine. Unfortunately, there isn't an easy solution with the current limitation of Azure Data Factory.

<https://sqlitybi.com/dynamically-set-copy-activity-mappings-in-azure-data-factory-v2/#comment-2080>

👍 0 🗨️ Reply



**Kirby**

🕒 12 days ago

This was SUPER helpful. Thank you very much.

👍 0 🗨️ Reply

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