Lab 7. Document generation with the Word Connector

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Learning objective: create a Flow that will generate an invoice (in PDF) based on a Word template and based on data stored in an Excel document.

Duration: 30 minutes

Scenario: Excel files containing invoice data are stored in OneDrive for Business. A Flow will read these data, it will parse the data, and it will generate an invoice based on a word document template. The invoice will be transformed into a PDF file.

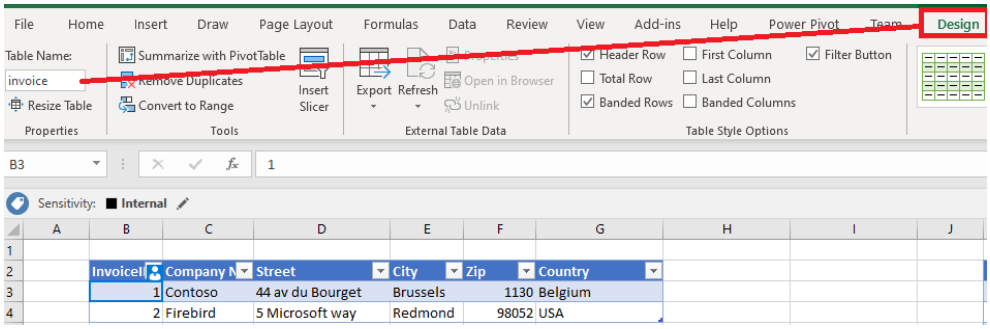
Prerequisites: The Word Connector is a Premium connector. You need to test this lab with a trial premium subscription.

When using the Word Connector, the designer will ask you to start a premium trial or you must have activated the Community license (see lab 0).

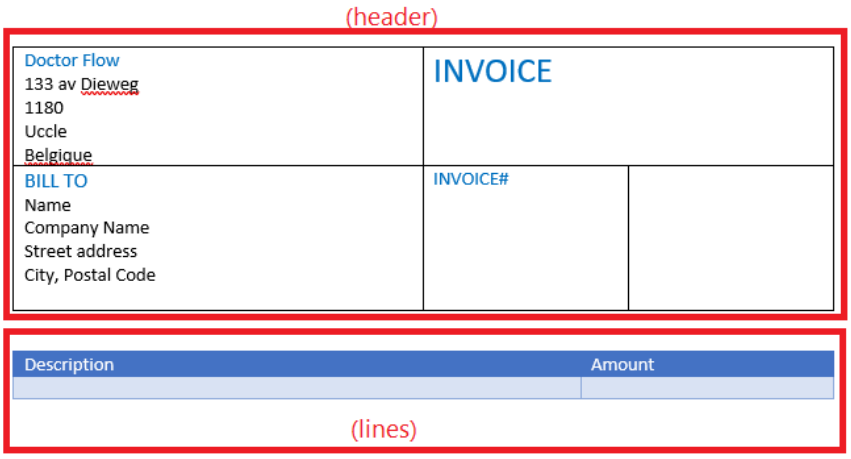
The files for the lab can be downloaded from the lab GitHub : the file name is

Tasks:

1. Upload the file **invoice.xlsx** provided by the trainer to the Documents folder of your OneDrive for Business
2. Look at this file: there are 2 tables:
    a. The table **invoice** consists of the invoice headers
    b. The table i**nvoicelines** consists of the invoice lines
3. Each table has a name that we will reference from our Flow; to find out the table name, open the file in Excel desktop, click the table and select the menu Design as illustrated in the next picture:

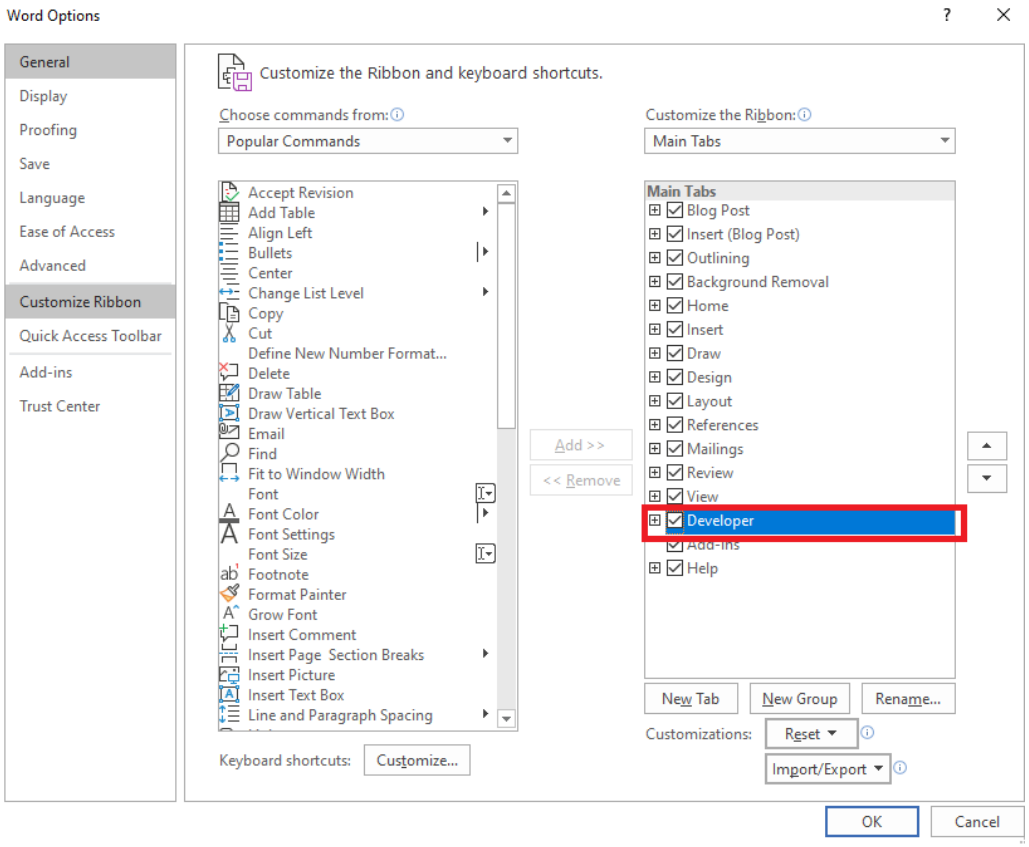


4. Each invoice can have several lines.
5. Upload the file **Invoice Template start.docx** provided by the trainer into the Documents folder of your OneDrive for Business and take a look at this file:

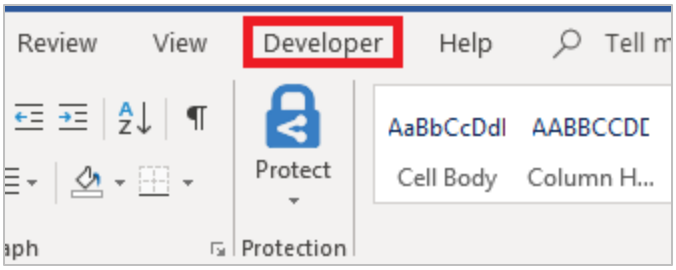


The section "header" and "lines" are 2 different tables. The lines section is a table with one row for the header and one row for the data.

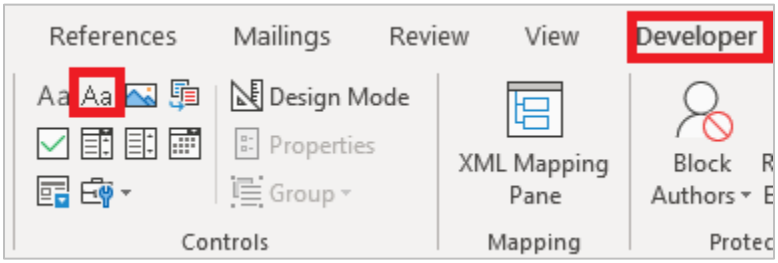
6. Go to the Word options, select Customize Ribbon, select **Developer**, and click OK.



This will display the **Developer** tab in Word:



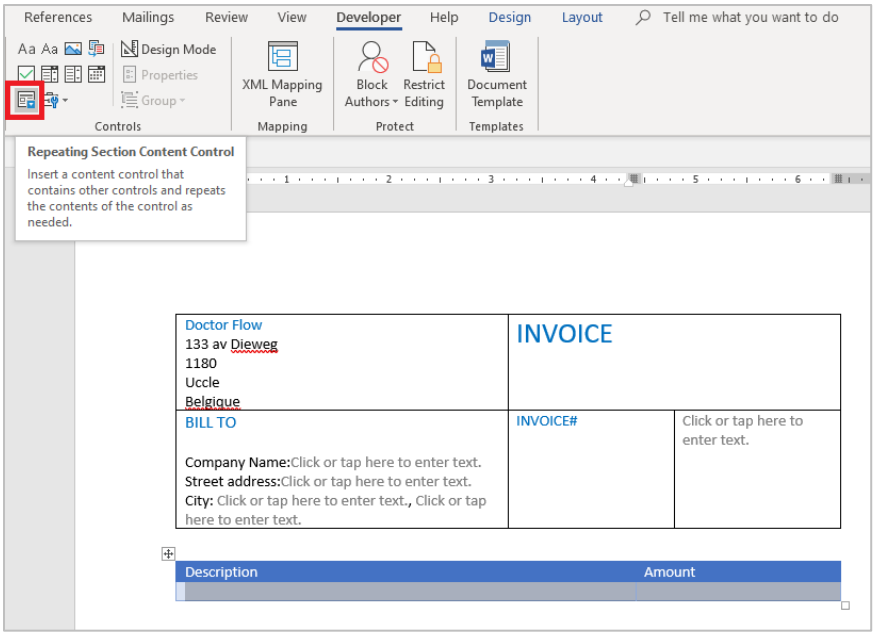
7. You will customize the word template, next to each field of the template, we will add a **Word plain text content** control, and we will use the properties button to name them accordingly.



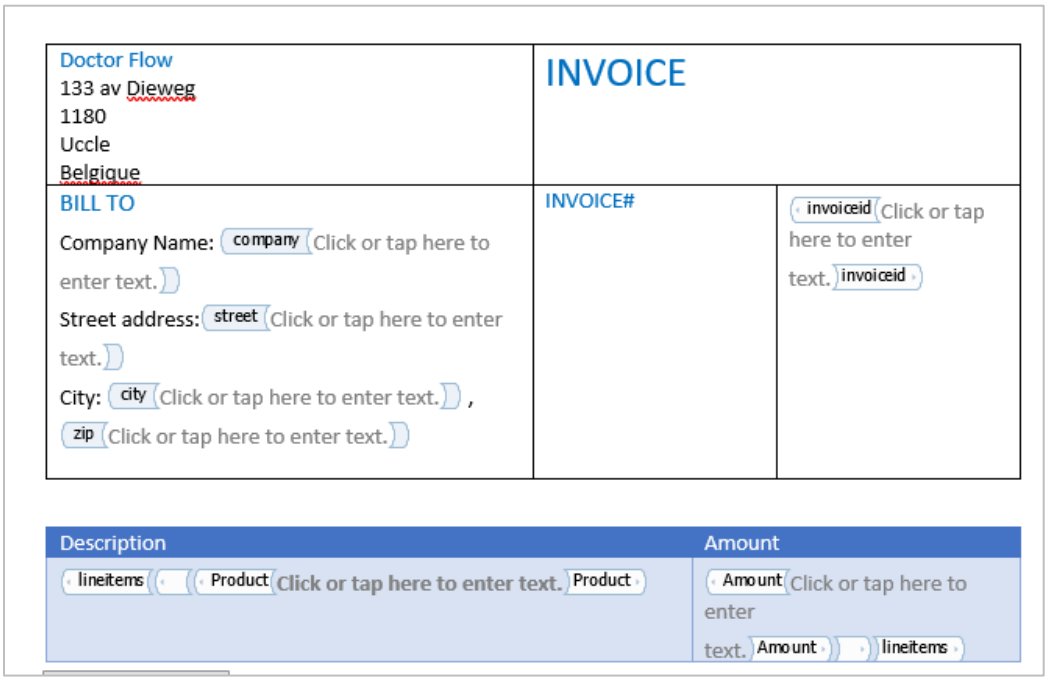
8. Add a control next to the following fields: **Company Name**, **Street address**, **City** (add 2 controls here, one for the city, one for the zip code) and one next to **invoice#;** with the properties button, name (Title of Property) the controls **company**, **street**, **City**, **zip**, **invoiceid** as illustrated below:

Doctor Flow 133 av Dieweg 1180 Uccle Belgique	INVOICE	
BILL TO Company Name: company Click or tap here to enter text. Street address: street Click or tap here to enter text. City: city Click or tap here to enter text. , zip Click or tap here to enter text.	INVOICE#	invoiceid Click or tap here to enter text. invoiceid

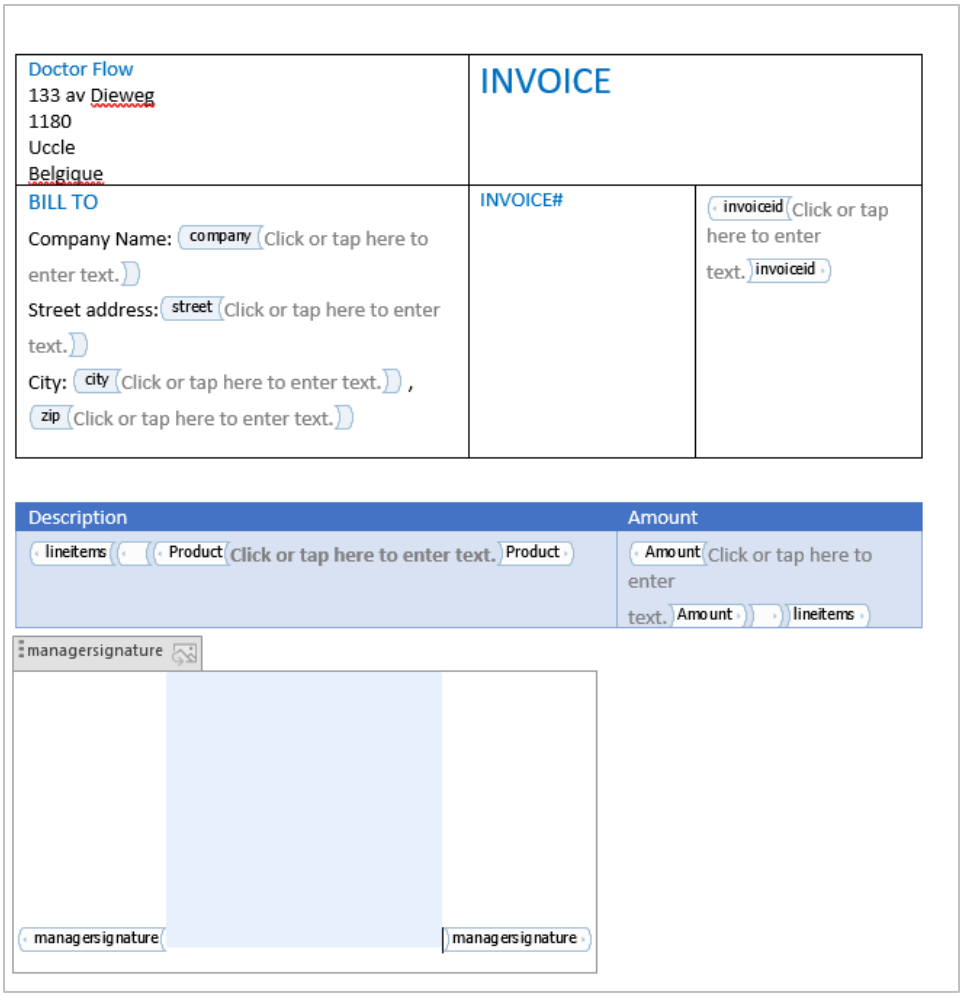
9. You will focus now on the invoice lines; select the second row of the table (the one with the empty data, not the row with the header); select the whole row (including the 2 columns) and add a **Repeating Section Content Control**:



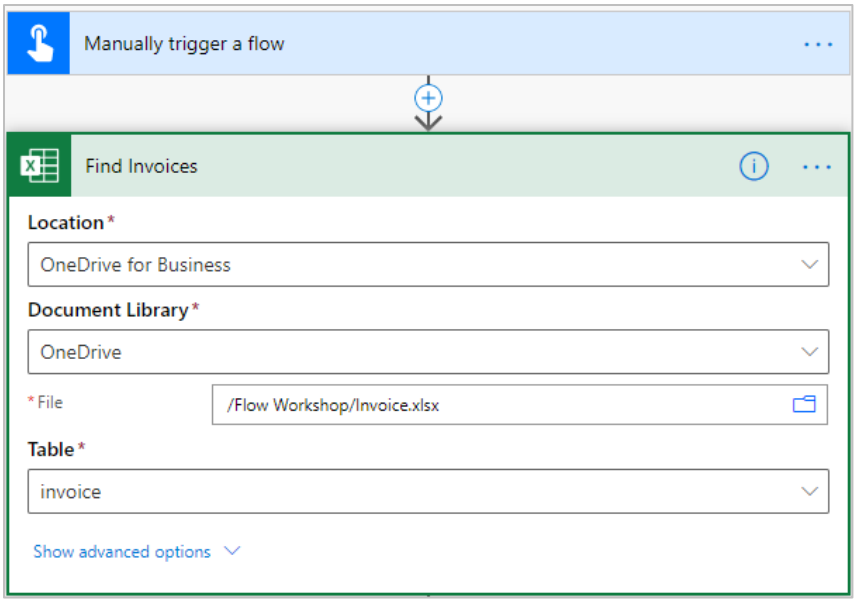
10. In this repeating section, content control, add 2 Plain text content controls and named them **Product** and **Amount**:



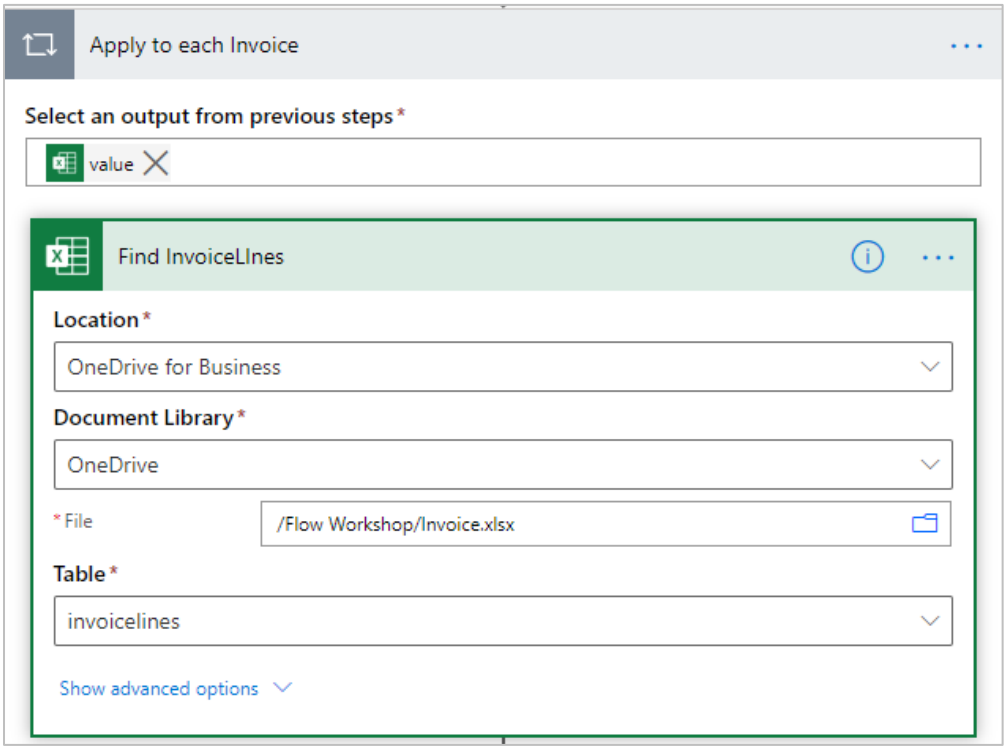
11. Just after the repeating section add a **Picture content control** that will display the manager signature. Name this control **managersignature**.
12. Eventually, the template should look like this:



13. Rename the file to **Invoice template**.docx
14. Let's create Flow that starts from a button (Instant cloud flow > Manually trigger a flow).
15. Add an action **Excel Online (Business)- List rows present in a table** , rename it as **Find Invoices** and retrieve the **invoice table** of your **invoice.xlsx** documents:

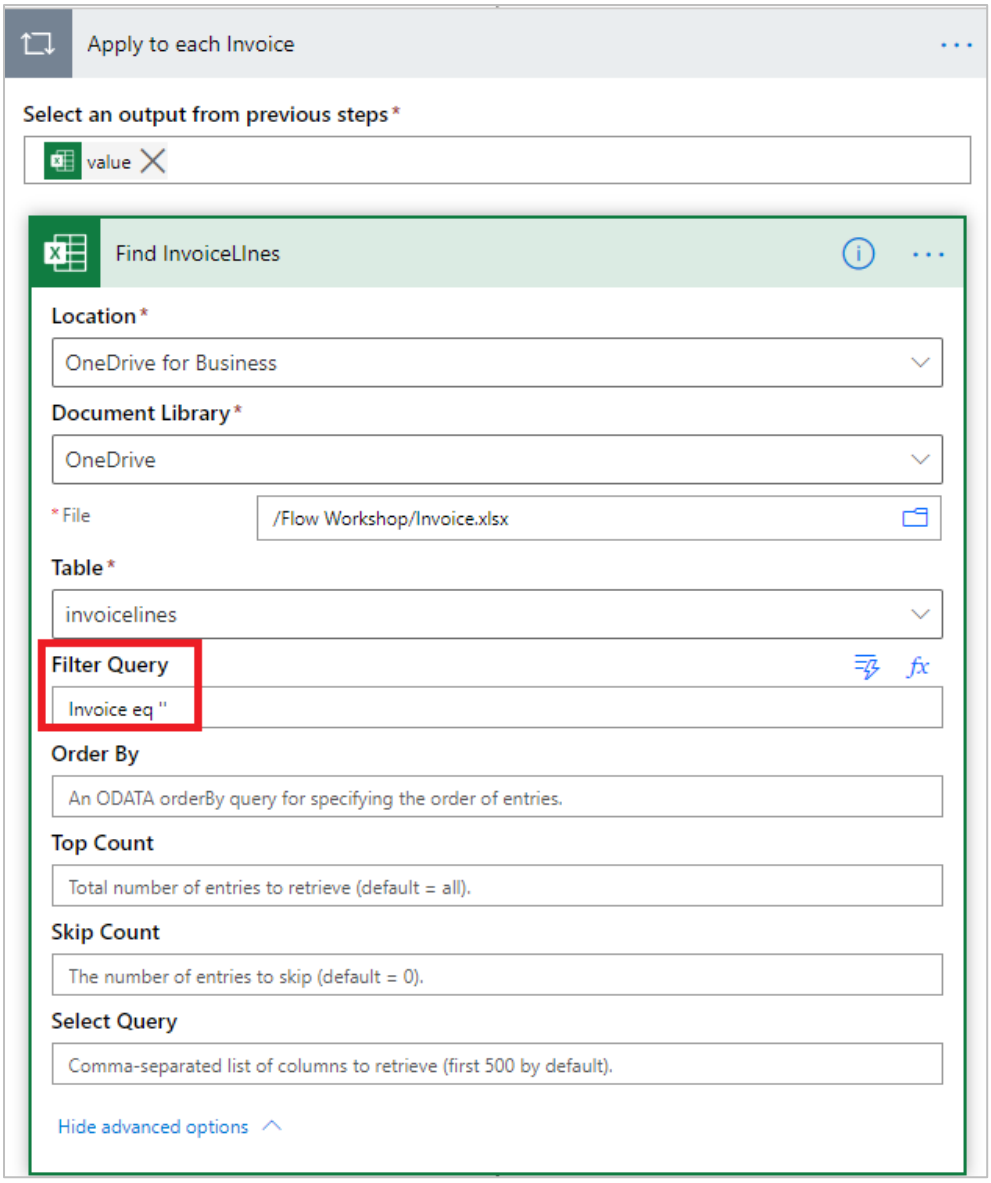


16. For each invoice, you will find the corresponding invoice lines: add the **Apply to each** action where you will add another **Excel Online (Business)- List rows present in a table** (rename it **Find InvoiceLines**) that will retrieve the invoicelines table:

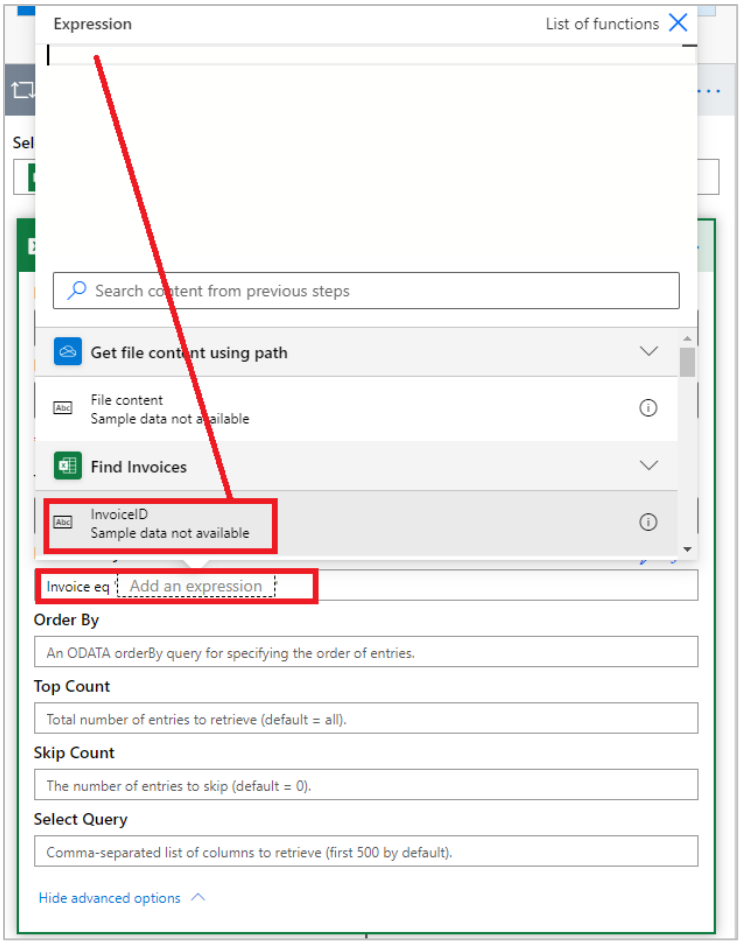


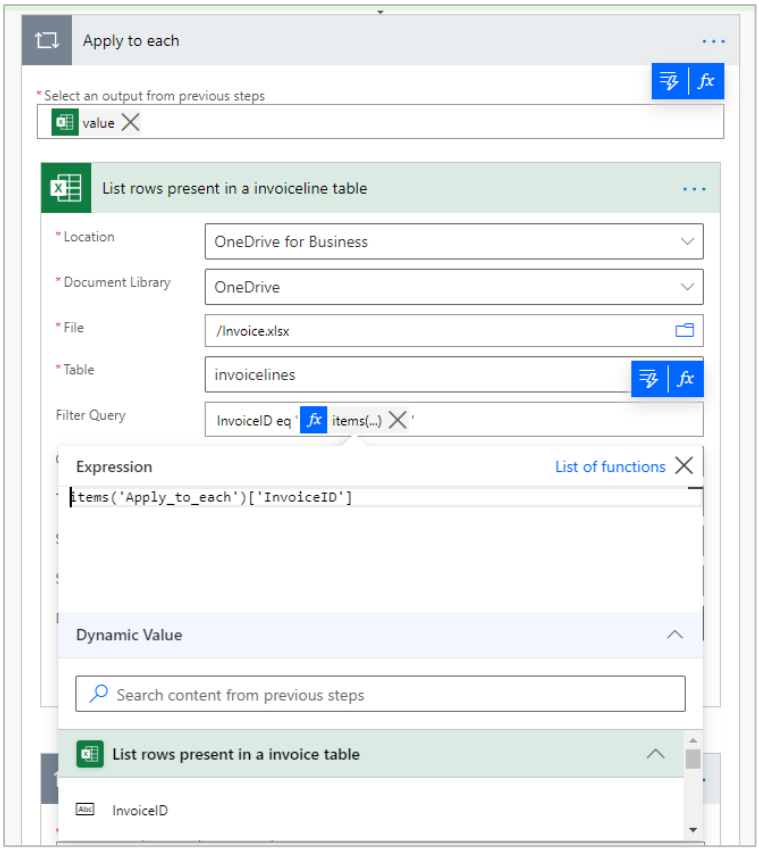
In the Excel for business action

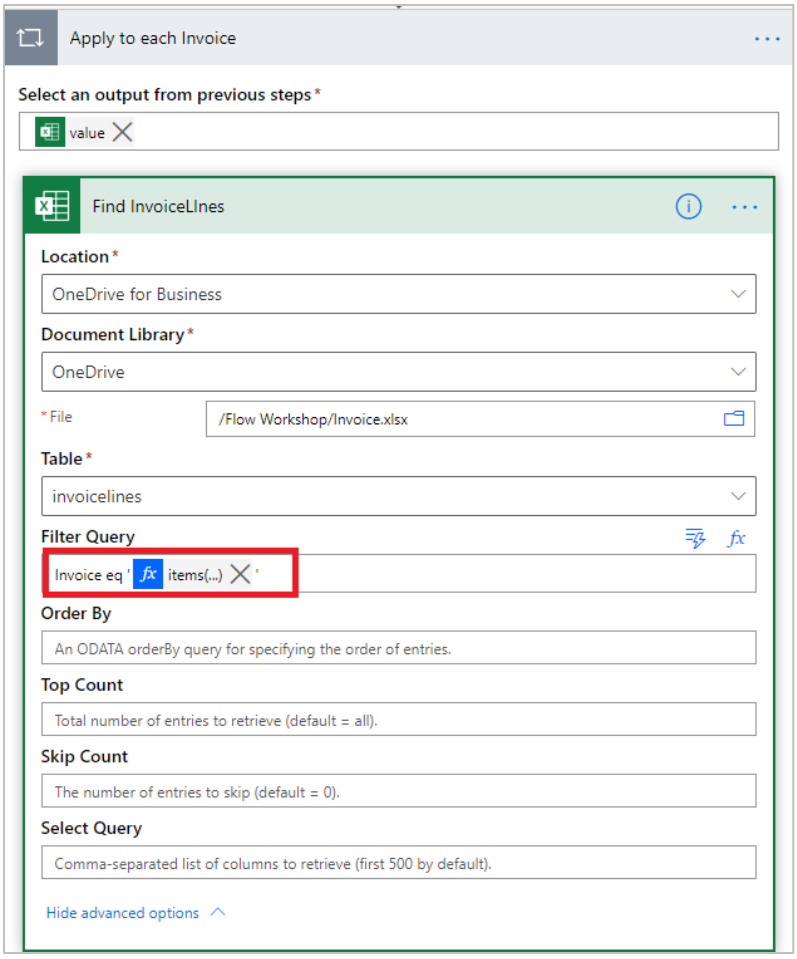
17. You need to filer the retrieved lines. Click the **Show advanced options** and in the **Filter Query** field, type **Invoice eq.''**



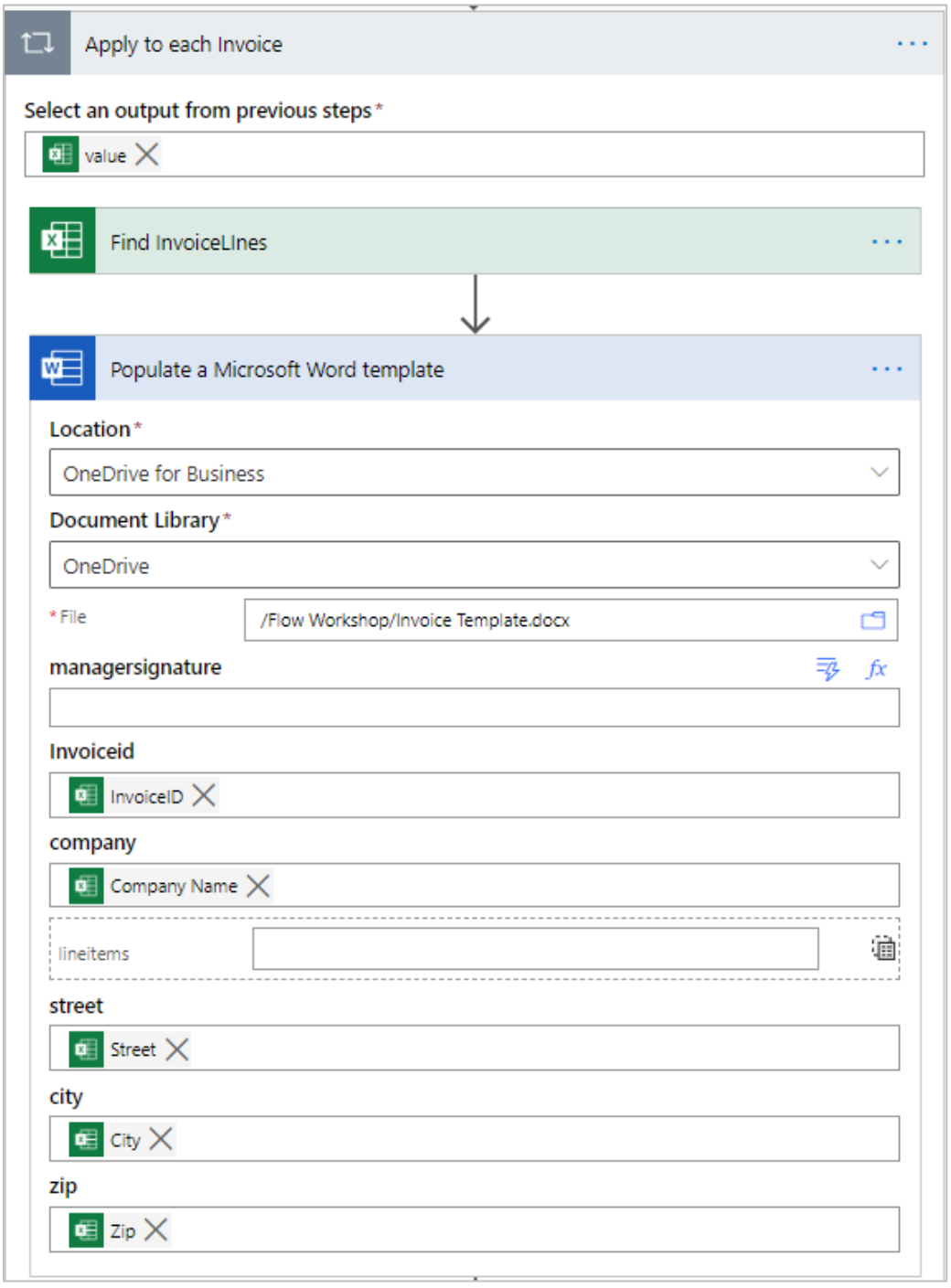
18. Move the cursor between the '' and add the expression **items('Apply_to_each')['InvoiceID']** then click ok:


Expression
List of functions
Search content from previous steps
Get file content using path
File content
Sample data not available
Find Invoices
InvoiceID
Sample data not available
Invoice eq
Add an expression
Order By
An ODATA orderBy query for specifying the order of entries.
Top Count
Total number of entries to retrieve (default = all).
Skip Count
The number of entries to skip (default = 0).
Select Query
Comma-separated list of columns to retrieve (first 500 by default).
Hide advanced options

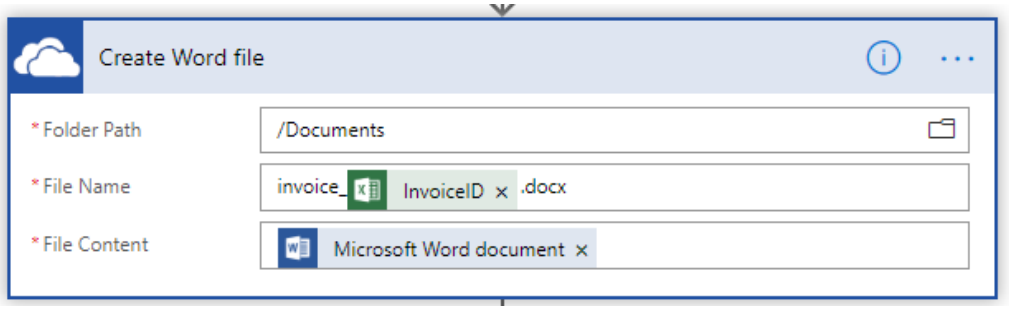

Apply to each
*Select an output from previous steps
value
List rows present in a invoiceline table
*Location
OneDrive for Business
*Document Library
OneDrive
*File
/Invoice.xlsx
*Table
invoicelines
Filter Query
InvoiceID eq '
items(...)
'
Expression
List of functions
items('Apply_to_each')['InvoiceID']
Dynamic Value
Search content from previous steps
List rows present in a invoice table
InvoiceID


Apply to each Invoice
Select an output from previous steps *
value
Find InvoiceLInes
Location *
OneDrive for Business
Document Library *
OneDrive
* File
/Flow Workshop/Invoice.xlsx
Table *
invoicelines
Filter Query
Invoice eq ' items(...) '
Order By
An ODATA orderBy query for specifying the order of entries.
Top Count
Total number of entries to retrieve (default = all).
Skip Count
The number of entries to skip (default = 0).
Select Query
Comma-separated list of columns to retrieve (first 500 by default).
Hide advanced options

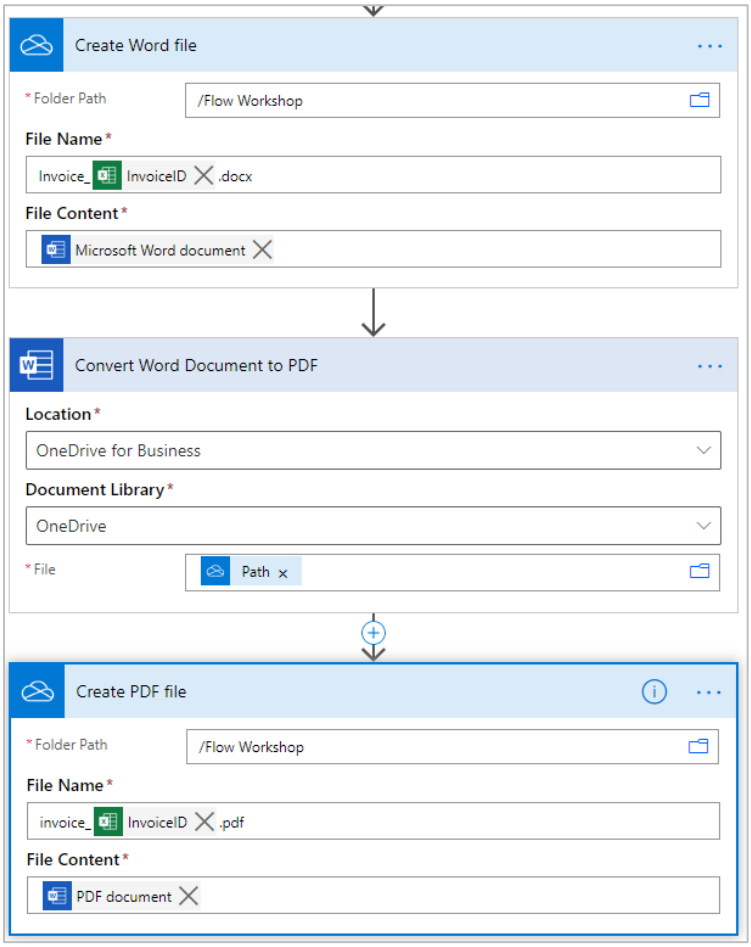
19. Add an action **Populate a Microsoft Word template,** and you will notice that the Word content controls show up as fields in this connector; fill in the field with the Excel values:



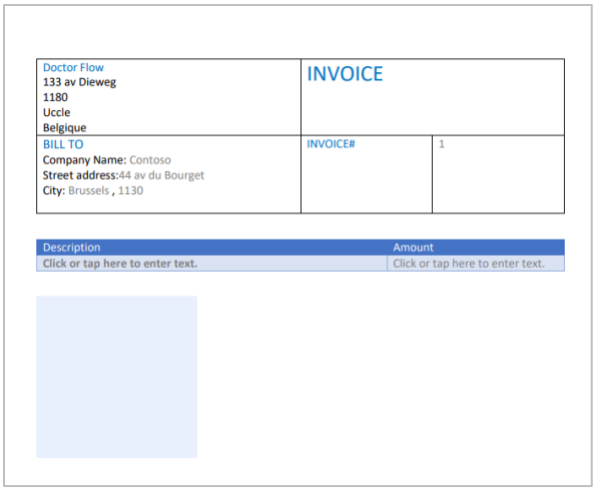
20. You still have to generate a file in OneDrive for Business with the content of the previous action output content: add a **OneDrive for Business Create file** action and rename it Create Word file.
21. Fill in the File Content from with the output of the previous action and dynamically generate the file name:



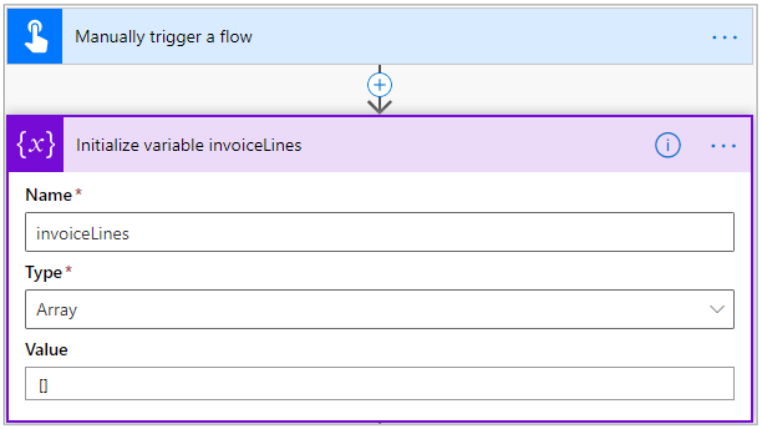
22. Add an action Convert Word Document to PDF and grab the path of the generated file
23. Add a **OneDrive for Business Create file action** to create the pdf file and pass the body of the previous action. The next 2 actions should look like this:



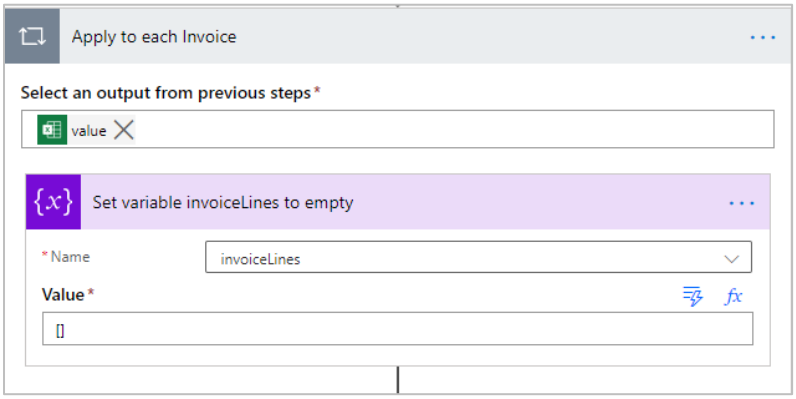
24. Run the Flow and check the generated PDF files. The first file should look like this:



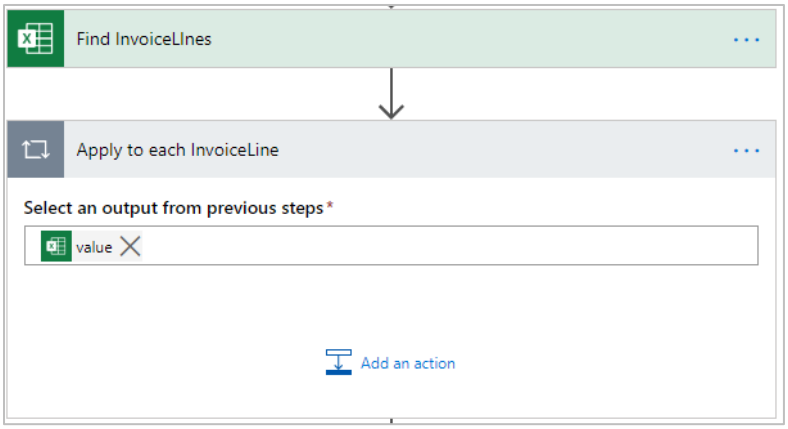
25. You will now update the Flow to implement the line items. Edit the Flow and define an array variable called **invoiceLines** and initialize it as an empty array:



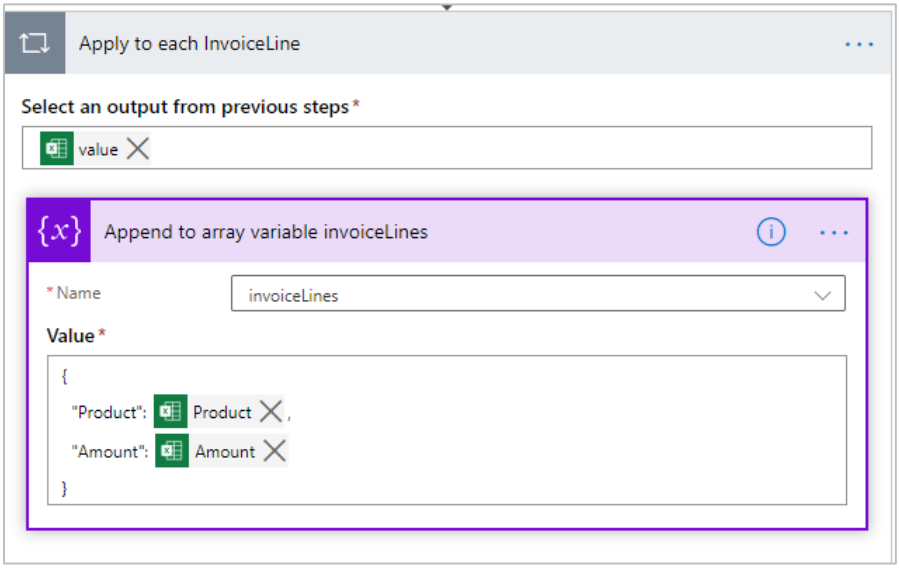
26. Add a Set variable action at the start of Apply to each to clean-up this variable again:



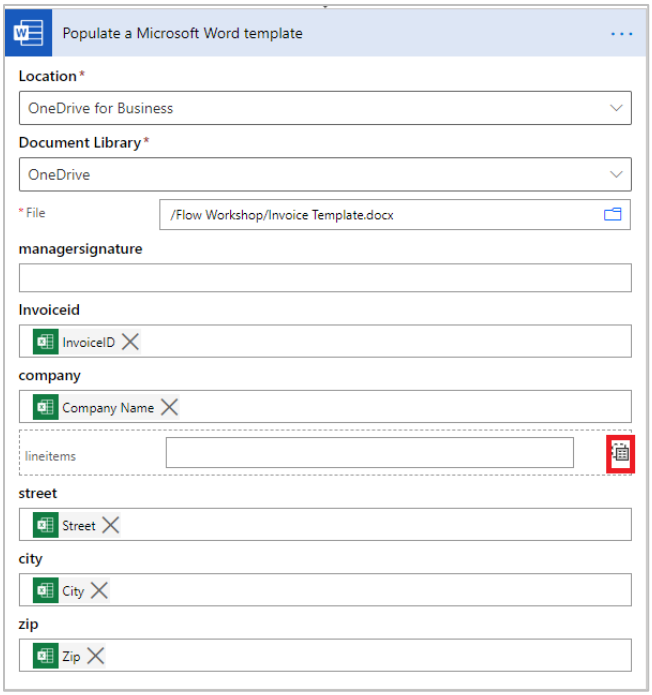
27. After the Find **InvoiceLines** action, **add an Apply to each Invoice** to go through every invoice lines:



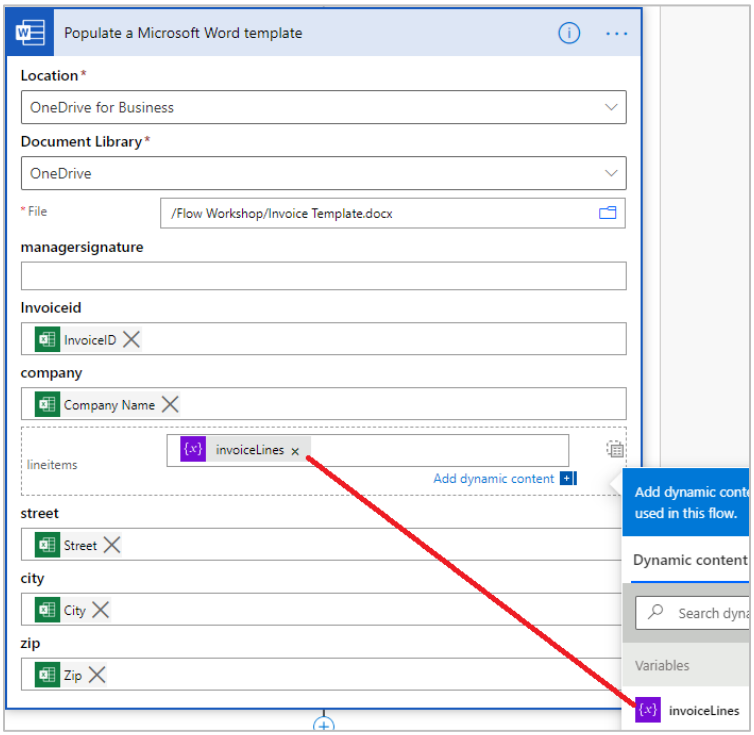
28. In this Apply to each, you will create a JSON array containing the **lineitems** information; add an **Append to array variable** action:



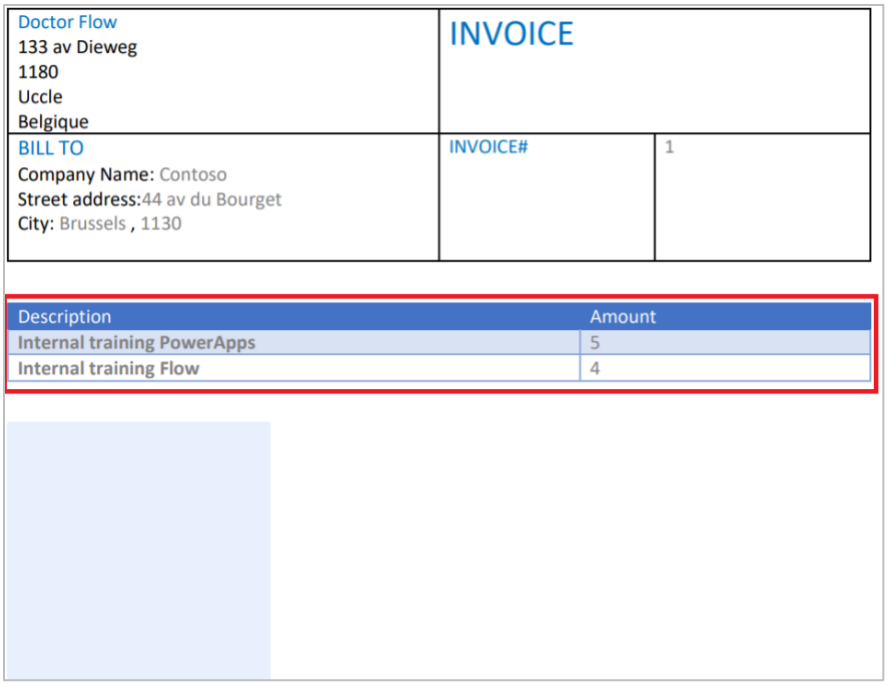
29. You will now update **the Populate a Microsoft Word template** action with this array. Select this action and click on the **Switch to input entire array** button:



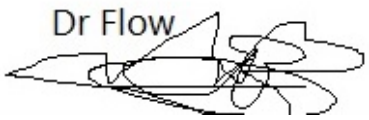
30. Store your array in this area:



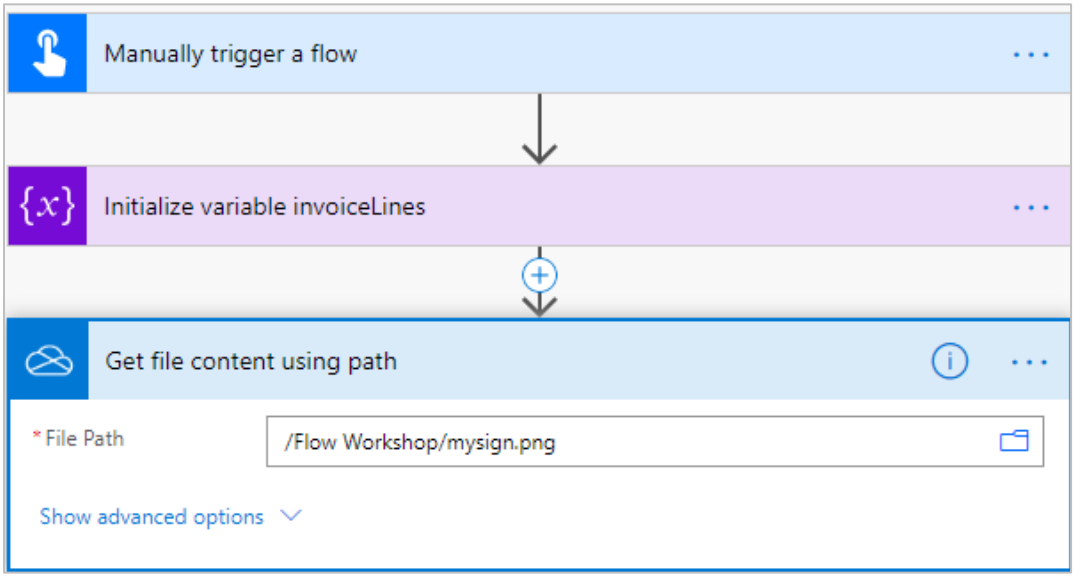
31. Run the Flow and check the generated documents. You should now see the invoice line items:



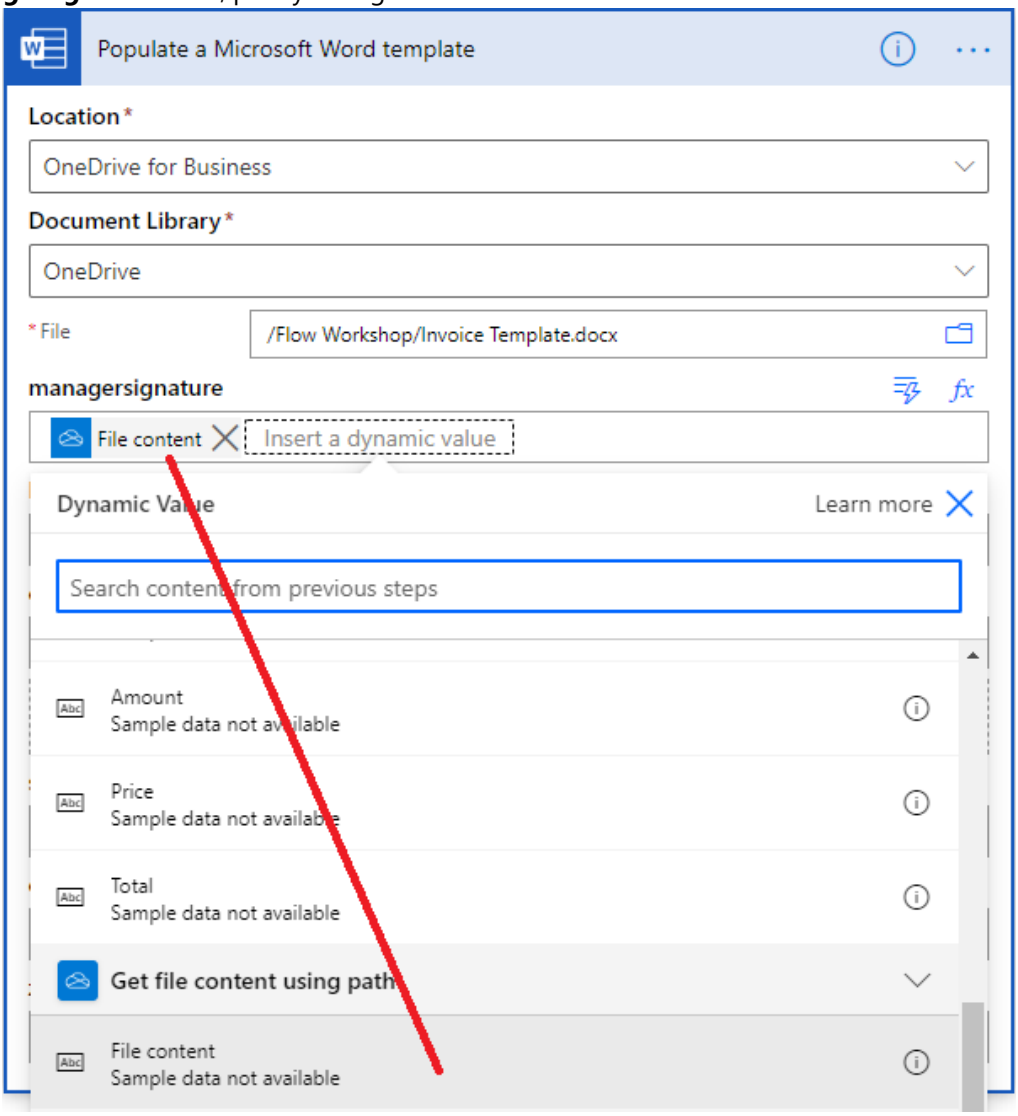
32. We will now display the signature portion of the document. Create a jpeg file with your name and signature, and upload it the Documents folder of your OneDrive for business. For instance, our signature looks like this:



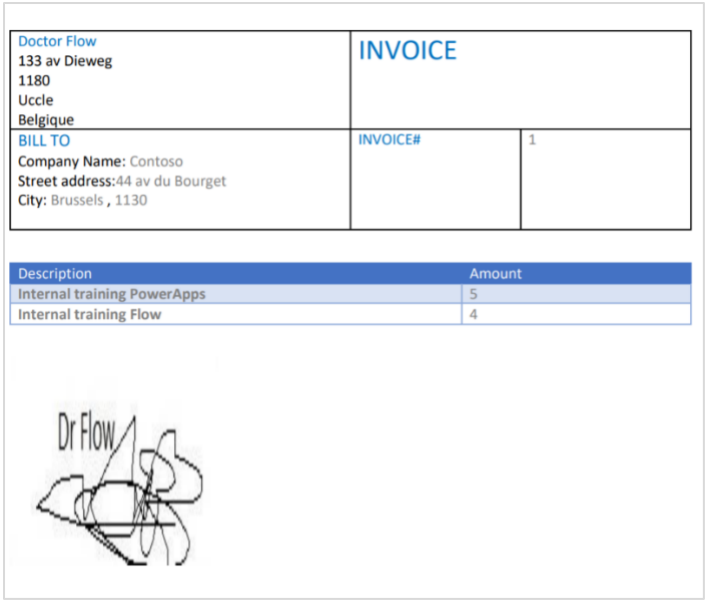
33. In the beginning section of the Flow, add a **OneDrive for business** action **Get file content using path** and pass your signature file path:



34. Edit the existing action **Populate a Microsoft Word template** action and in the **managersignature** field, pass your signature content:



35. Test your Flow and check one the generated document, the signature should now be visible:



Doctor Flow 133 av Dieweg 1180 Uccle Belgique	INVOICE	
BILL TO Company Name: Contoso Street address:44 av du Bourget City: Brussels , 1130	INVOICE#	1

Description	Amount
Internal training PowerApps	5
Internal training Flow	4

We need your feedback

Do you want to report an issue or to suggest something? We need your feedback:
https://github.com/Power-Automate-in-a-day/Training-by-the-community/issues