

5th GLOBAL POWER PLATFORM BOOTCAMP 2023



POWER PLATFORM
BOOTCAMP

Best practice from the field
Tips and tricks for cloud flows



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#GPPB2024

Best practice from the field

Tips and tricks for cloud flows



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Agenda



- Microsoft Graph Calls
- Microsoft Graph Calls with nextlink
- Using Try-Catch
- Reusing a Flow as Template
- Formatting Hyperlinks in HTML Table
- Sort an Array of Objects with the Sort Function
- Apply styles to a HTML table
- Use select and filter actions

Microsoft Graph calls

Using the HTTP connector

The screenshot shows the 'HTTP - Use Graph to get Teams' connector configuration. The 'Method' is set to 'GET'. The 'URI' is 'https://graph.microsoft.com/v1.0/groups?\$filter=resourceProvisioningOptions/any(c:c+eq+'Team')'. The 'Authentication' is set to 'Active Directory OAuth'. The 'Authority' is 'Default: https://login.windows.net/'. The 'Tenant' is '{x} TenantName x'. The 'Audience' is 'https://graph.microsoft.com'. The 'Client ID' is '{x} ClientID x'. The 'Credential Type' is 'Secret'. The 'Secret' is '{x} ClientSecret x'. There are 'Enter key' and 'Enter value' fields for 'Headers' and 'Queries'. There are 'Enter request content' and 'Enter HTTP cookie' fields for 'Body' and 'Cookie'. A 'Hide advanced options' link is at the bottom left.

Pros: Multiple authentication methods, least privilege permissions

Cons: Premium license, Secret/password in clear text

Using the Office 365 Groups connector

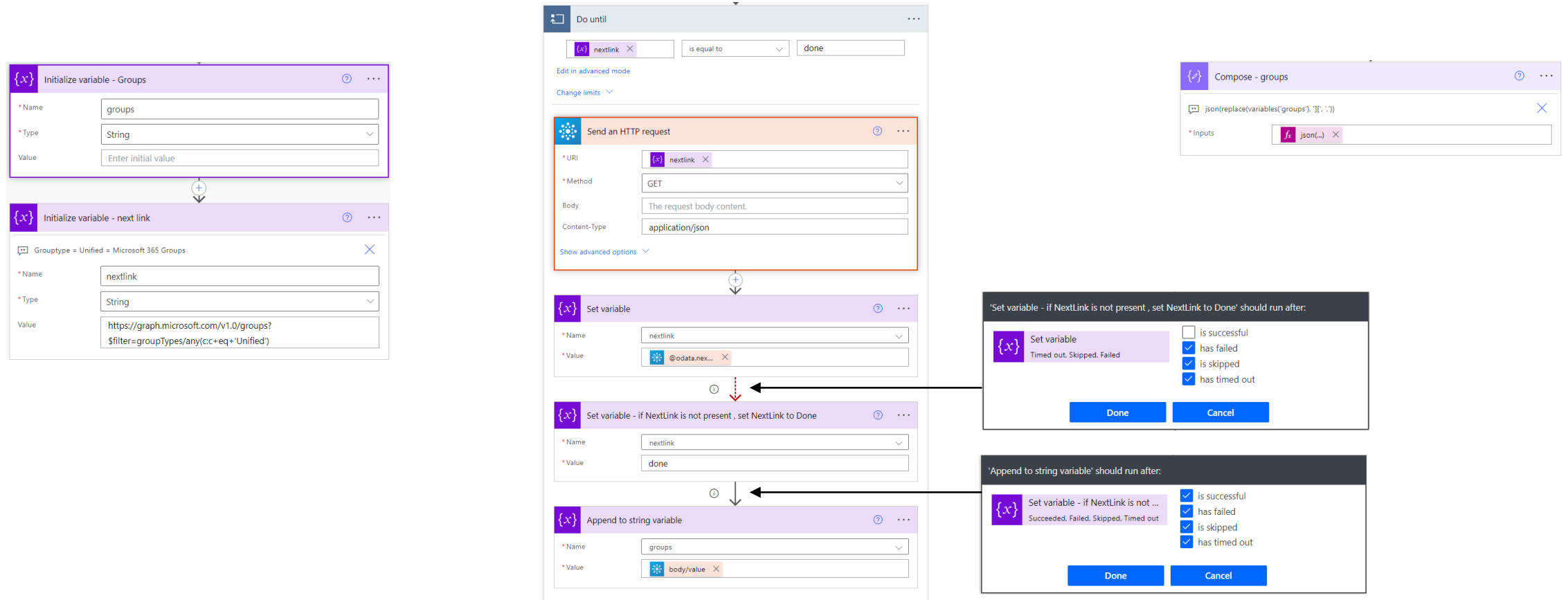
The screenshot shows the 'Send an HTTP request V2' connector configuration. The 'URI' is 'https://graph.microsoft.com/v1.0/groups?\$filter=resourceProvisioningOptions/any(c:c+eq+'Team')'. The 'Method' is set to 'GET'. The 'Body' is 'The request body content.'. The 'Content-Type' is 'application/json'. A 'Show advanced options' link is at the bottom left.

Pros: Standard license, run in the context of a user account

Cons: Run in the context of a user account

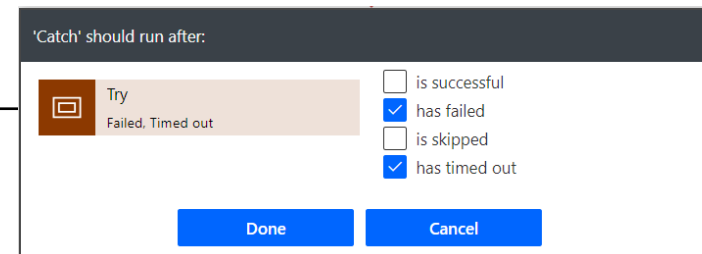
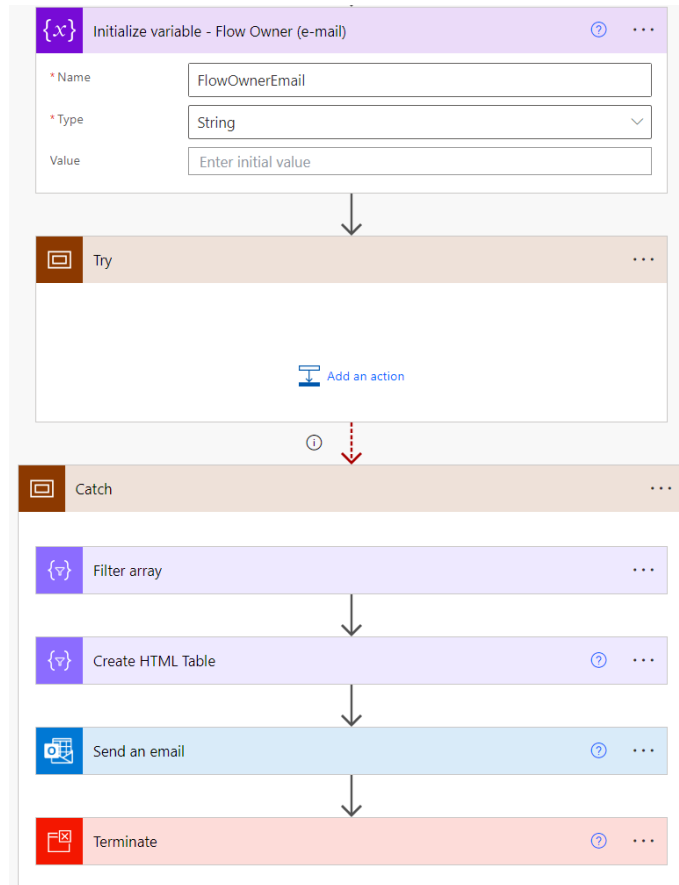
Microsoft Graph calls with nextlink

Graph is paging with the first 100 items. It will continue to return a reference to the next page of results in the **@odata.nextLink** property with each response until there are no more pages of results to retrieve



Always use Try-Catch

Use the try-catch approach to ensure you always get notified with at cloud flow has errors.



Always use Try-Catch - continue

Flow run information:

Send an email

* To:

* Subject:

* Body:

```
</>
<style>
table, td, th {
  border: 1px solid #ddd;
  text-align: left;
}

table {
  border-collapse: collapse;
  width: 100%;
}

th, td {
  padding: 15px;
}
</style>
<p> {v} Output x </p>
<a href=' {fx concat(...) x } '>Check flow Run</a>
<br>
Flow run user: {fx triggerOutputs() x }
```

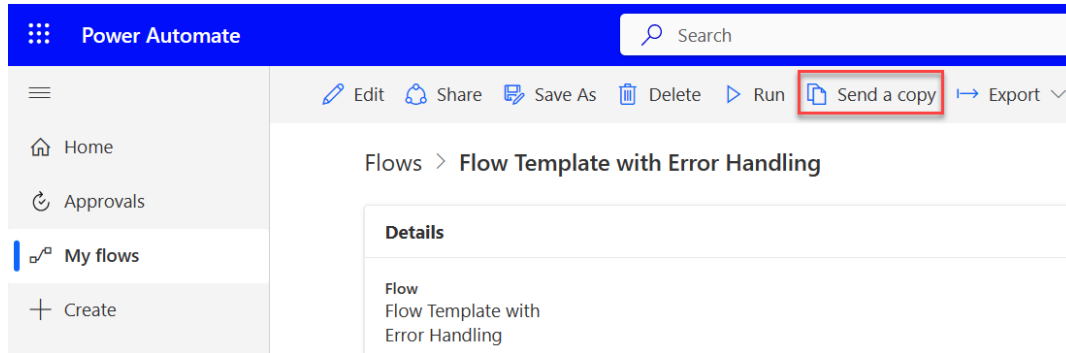
`workflow()?['tags/flowDisplayName']`

`concat('https://make.powerautomate.com/manage/environments/',
workflow()?['tags']?['environmentName'], '/flows/', workflow()?['name'],
'/runs/', workflow()?['run']['name'])`

`triggerOutputs()['headers']['x-ms-user-email']`

Reuse a Flow as Template

Create a “Try-Catch Flow Template” and reuse it in the entire company.



To use "send a copy" you need to have a success run.

Send a copy ×

Title *

Description *

specifying which actions failed or time out and the reason for the failure. We will also provide a link back to the flow run for the failed Power Automate flow instance.

Author: Power Platform Administrator

Send to *

AU All Users ×

People in your organization will be able to create a copy of this flow. There is no way to recall this flow once copied.

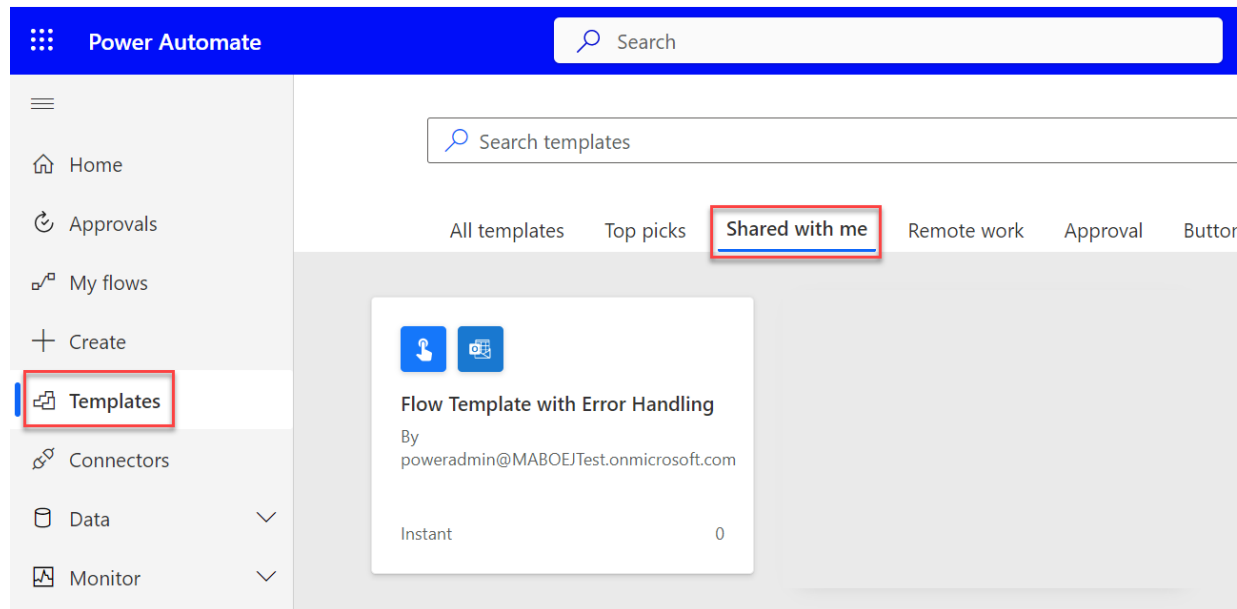
Send to “All users” or any other security group



Reuse a Flow as Template - continue

Create a "Try-Catch Flow Template" and reuse it in the entire company.

To use the Template :



A template is only available in the environment it's created in.

Format Hyperlinks in HTML Table

In order to add a link to a record, you can do so by adding a “a href” tag in the Select action.

Select 2

* From: value

* Map:

Key	Value
Name	Title
Brand	Brand
Model year	Year
Price	Price
Link	<code>concat('Link to image')</code>
Owner email	item(...)
Enter key	Enter value

Then we can use the “Create a HTML table” to convert the records to HTML.

Create HTML table

* From: Output

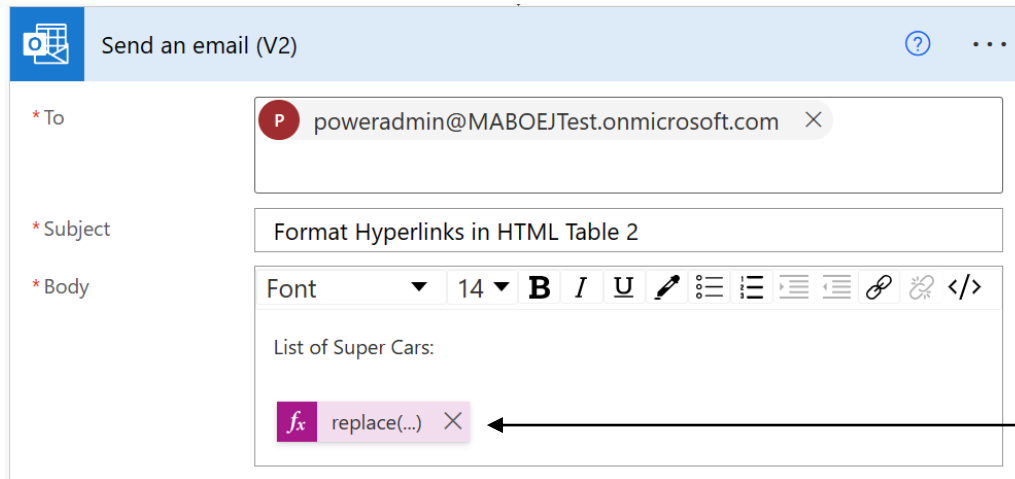
Show advanced options

Format Hyperlinks in HTML Table

But when converting to HTML the "a href" will formatted wrong

```
<a href="https://example.com/image4.jpg">Link to image</a>
```

We need to deal with that using a replace command.

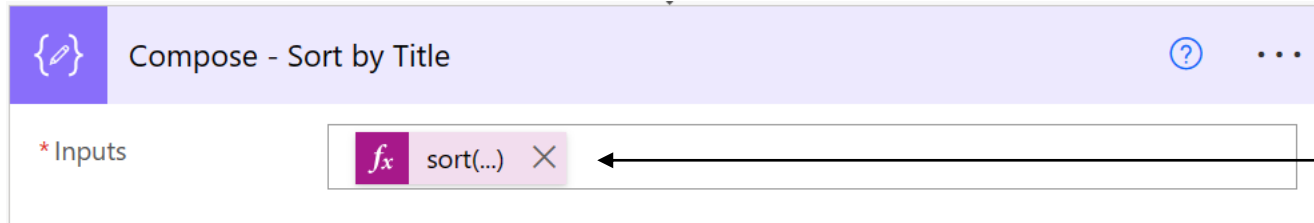


```
replace(replace(replace(body('Create_HTML_table'),  
'&lt;','<'), '&gt;','>'), '&quot;','"')
```

This will convert it to the right format.

```
<a href="https://example.com/image4.jpg">Link to image</a>
```

Sort an Array of Objects with the Sort Function



```
sort(body('Select_2'),'Name')
```

Sort by "Name" ascending.

Use the "reverse" command to sort descending.

```
Reverse(sort(body('Select_2'),'Name'))
```

Apply styles to a HTML table

```
Compose - HTML style
* Inputs
<style>
table {
  border: 1px solid #1C6EA4;
  background-color: #EEEEEE;
  width: 100%;
  text-align: left;
  border-collapse: collapse;
}
table td, table th {
  border: 1px solid #AAAAAA;
  padding: 3px 2px;
}
table tbody td {
  font-size: 13px;
}
table thead {
  background: #1C6EA4;
  border-bottom: 2px solid #444444;
}
table thead th {
  font-size: 15px;
  font-weight: bold;
  color: #FFFFFF;
  border-left: 2px solid #D0E4F5;
}
table thead th:first-child {
  border-left: none;
}
</style>
```

Send an email (V2)

* To: poweradmin@MABOEJTest.onmicrosoft.com

* Subject: Format Hyperlinks in HTML Table 4 - style

* Body:
Outputs
<h1>List of Super Cars</h1>

replace(...) </p>

Show advanced options

I used this table designer to give me inspiration
<http://divtable.com/table-styler/>

Apply styles to a HTML table

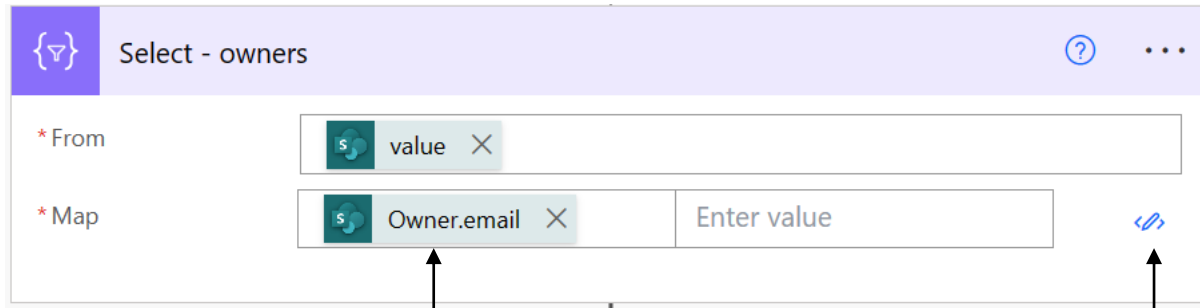
```
<style>
table {
  border: 1px solid #1C6EA4;
  background-color: #EEEEEE;
  width: 100%;
  text-align: left;
  border-collapse: collapse;
}
table td, table th {
  border: 1px solid #AAAAAA;
  padding: 3px 2px;
}
table tbody td {
  font-size: 13px;
}
table thead {
  background: #1C6EA4;
  border-bottom: 2px solid #444444;
}
table thead th {
  font-size: 15px;
  font-weight: bold;
  color: #FFFFFF;
  border-left: 2px solid #D0E4F5;
}
table thead th:first-child {
  border-left: none;
}
</style>
```



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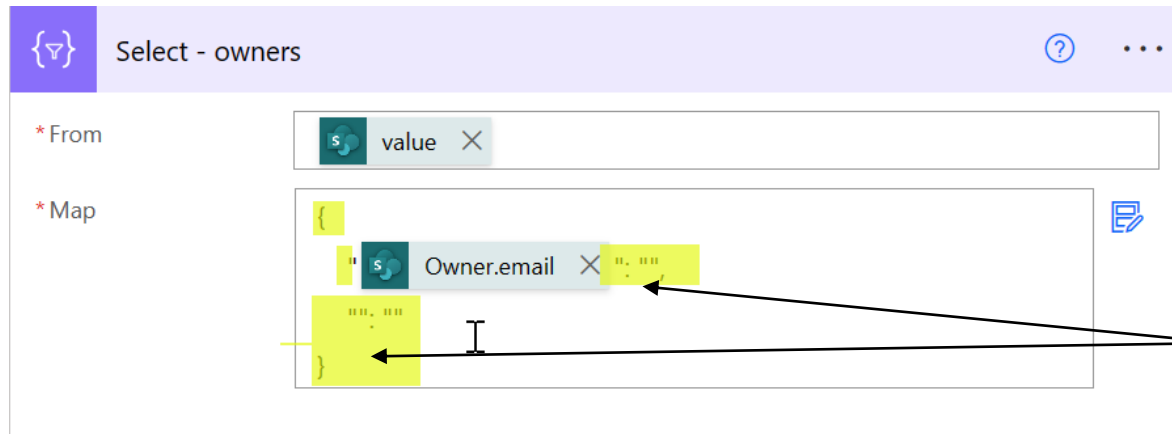
Use select and filter actions

Sometimes you would like to send an email with the items the user own and not one email per item. First, we need to get an array of owners:



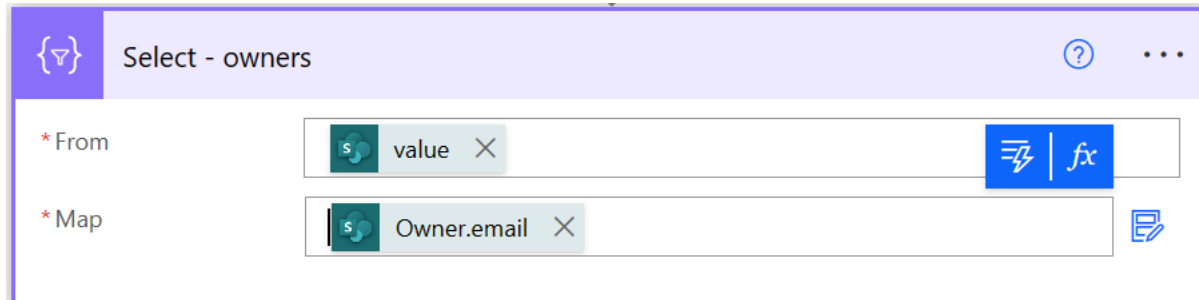
1. Add the owner email field

2. Click the "text mode" button



3. Remove all the highlighted

Use select and filter actions – continue



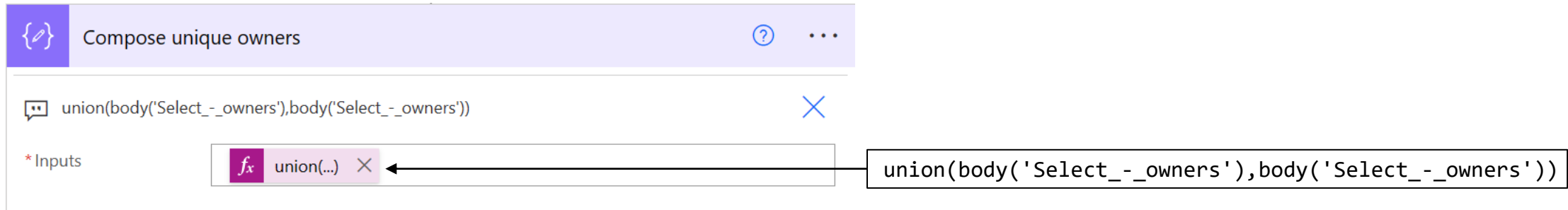
The result is an array of all owners:

Body

```
[  
  "admin@MABOEJTest.onmicrosoft.com",  
  "user1@MABOEJTest.onmicrosoft.com",  
  "admin@MABOEJTest.onmicrosoft.com",  
  "user1@MABOEJTest.onmicrosoft.com",  
  "user1@MABOEJTest.onmicrosoft.com",  
  "admin@MABOEJTest.onmicrosoft.com",  
  "admin@MABOEJTest.onmicrosoft.com"  
]
```

Use select and filter actions – continue

Next is the only have an array of unique owners:



The screenshot shows the 'Compose unique owners' action in the Power Platform. The formula bar contains the formula `union(body('Select_-_owners'),body('Select_-_owners'))`. Below the formula bar, the 'Inputs' section shows a field with the formula `union(...)` and a callout box pointing to it containing the full formula `union(body('Select_-_owners'),body('Select_-_owners'))`.

The result is an array of unique owners:

Outputs

```
[  
  "admin@MABOEJTest.onmicrosoft.com",  
  "user1@MABOEJTest.onmicrosoft.com"  
]
```

Use select and filter actions – continue

Next is to add a “Filter” action inside “Apply to each”

The screenshot shows a Power Automate workflow with two actions: "Apply to each" and "Filter array".

- Apply to each:** The "Select an output from previous steps" dropdown is set to "Outputs". An annotation points to this dropdown with the text: `outputs('Compose_unique_owners')`.
- Filter array:** The formula bar contains the expression: `@equals(item()?['Owner/Email'], items('Apply_to_each'))`.
 - The "From" dropdown is set to "value". An annotation points to this dropdown with the text: `outputs('Get_items')?['body/value']`.
 - The condition is "Owner Email" is equal to "Current item". An annotation points to the "Current item" dropdown with the text: `items('Apply_to_each')`.
 - An annotation points to the "Owner Email" dropdown with the text: `item()?['Owner/Email']`.
 - There is a link "Edit in advanced mode" below the condition.

The result of the filter is all items for one owner.

Use select and filter actions – continue

Next is to add a “Select” action inside “Apply to each”

Select

*From

Body

*Map

Name	Value
Title	Title
Brand	Brand
Model year	Year
Price	Price
Enter key	Enter value

body('Filter_array')

And an “Create HTML table” action inside “Apply to each”

Create HTML table

*From

Output

Show advanced options

body('Filter_array')

Use select and filter actions – continue

Last is to add an “Send email” action inside “Apply to each”

The screenshot shows the configuration for the "Send an email (V2)" action. The fields are as follows:

- To:** Current item (Annotated with `items('Apply_to_each')`)
- Subject:** Send e-mail grouped by owner
- Body:**

```
</>
Outputs
<h1>List of Super Cars you own</h1>
<br>
<br>
Output
```

 (Annotated with `outputs('Compose_-_HTML_style')` and `body('Create_HTML_table')`)



Power Platform User Group Denmark



Please join the local user group:

<https://forms.office.com/r/bVs2k6pw6C?origin=lprLink>

Sign up and get an invite to the community using Teams



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survey!
& Win Swags!!



<https://bit.ly/GPPBSurvey>

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THANK YOU

Slides and solution – look at my LinkedIn profile:
aka.ms/maboej



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