

# How to add SharePoint Term Sets into your form

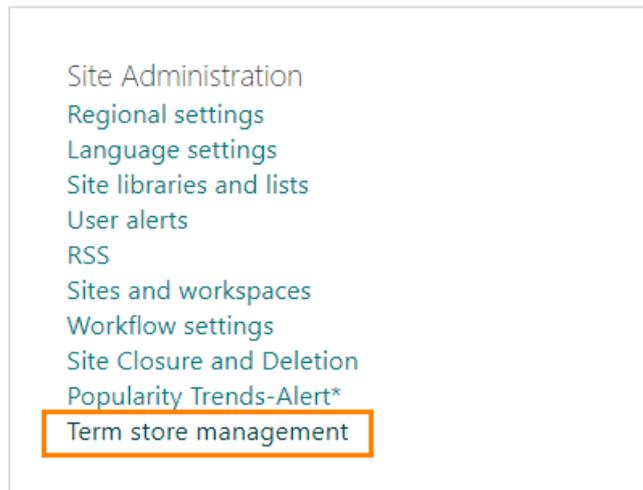
## Overview

In this document you will learn how to query the SharePoint Term Sets using qRules and display them in your form.

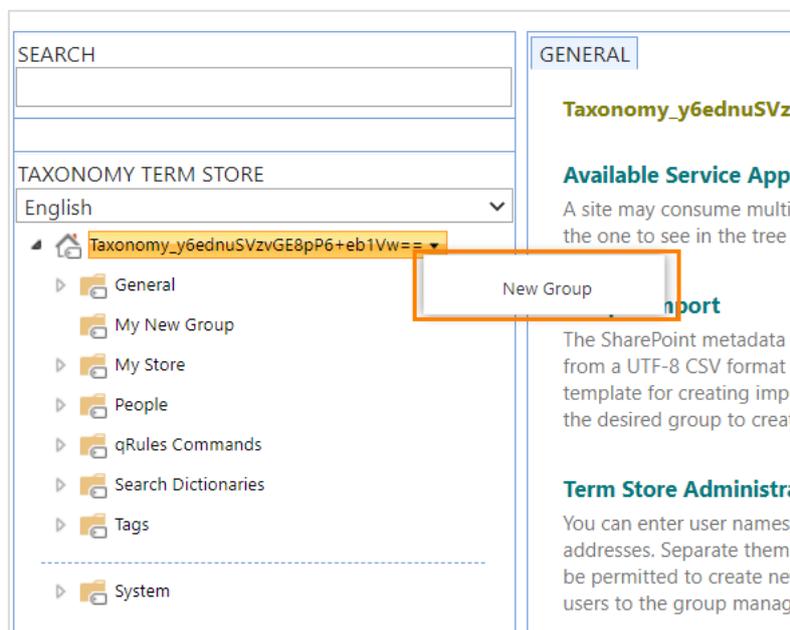
Here's a quick preview:

## Create a Taxonomy in the SharePoint Term Store

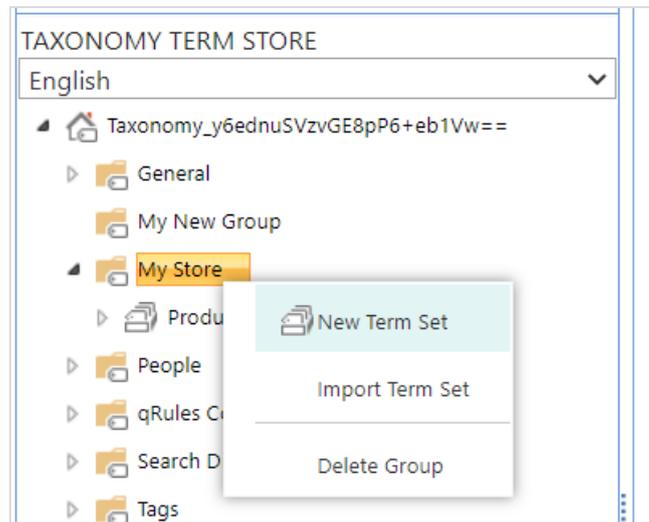
1. On the main SharePoint page (<https://servername/>), select Site Actions → Site Settings.
2. Under Site Administration, click on Term store management.



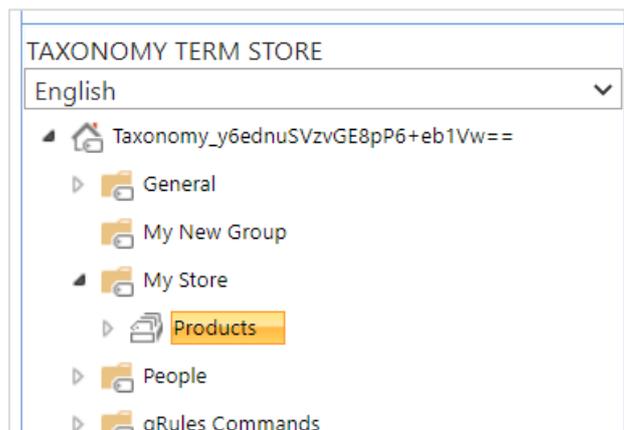
3. In the left hand task pane, click on the Taxonomy root and select New Group.



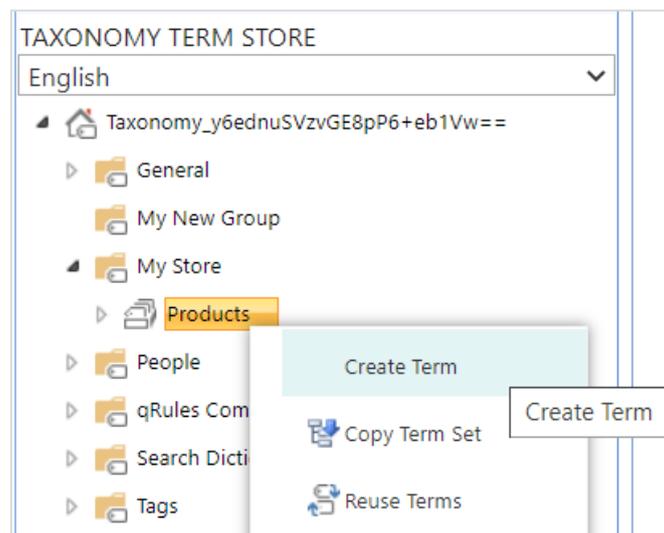
4. Enter a name for your group.
5. For this group, add a Description, Group Managers and Contributors, as desired, then click Save.
6. On the left-hand task pane, click on the group you created and select New Term Set.



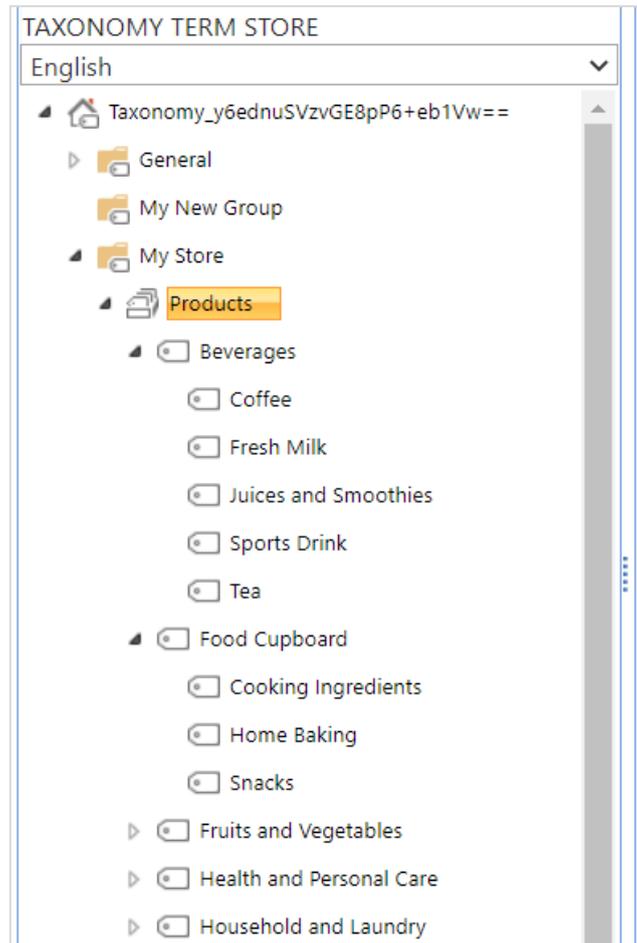
7. Enter a name (in this case, Products).



8. Click on the Term Set, select Create Term, enter a term name.



9. Repeat the step above to add a few terms. Continue adding levels; we'll need these later.
10. When finished, your list might look like this:



## Create a Managed Metadata column

To query the terms added above, we need to add them a Managed Metadata column in a library or list.

1. Navigate to the library or list where your documents reside and you want to tag with the termsets.
2. Go to the List and click List settings.
3. Under Columns, click Create column.
4. Under Column name, enter the column name as desired.
5. For Type, select Managed Metadata.

**Name and Type**  
Type a name for this column, and select the type of information you want to store in the column.

Column name:

The type of information in this column is:

- Single line of text
- Multiple lines of text
- Choice (menu to choose from)
- Number (1, 1.0, 100)
- Currency (\$, ¥, €)
- Date and Time
- Lookup (information already on this site)
- Yes/No (check box)
- Person or Group
- Hyperlink or Picture
- Calculated (calculation based on other columns)
- Location
- External Data
- Task Outcome
- Managed Metadata

11. Under Term Set Settings, enter the Term set name and click the icon for search.

**Term Set Settings**  
Enter one or more terms, separated by semicolons, and select Find to filter the options to only include those which contain the desired values.

After finding the term set that contains the list of values to display options for this column, click on a term to select the first level of the hierarchy to show in the column. All levels below the term you select will be seen when users choose a value.

Use a managed term set:  
Find term sets that include the following terms.



▶  Taxonomy\_y6ednuSVzvGE8pP6+eb1Vw==

12. This will show the Term Store taxonomy, select the term set:

Use a managed term set:  
Find term sets that include the following terms.



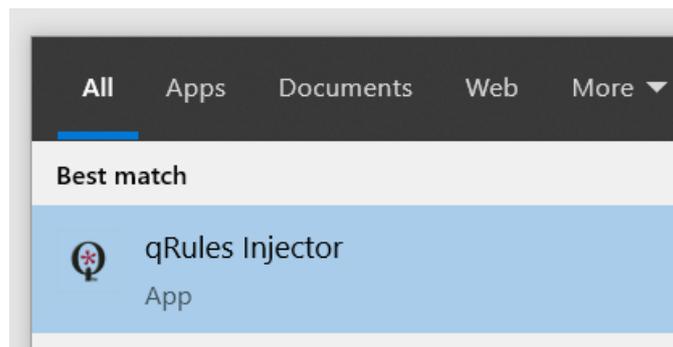
- ▶  Taxonomy\_y6ednuSVzvGE8pP6+eb1Vw==
  - ▶  My Store
    - ▶  **Products**
  - ▶  qRules Commands
    - ▶  Products

13. Click OK at the bottom of the page.

## Inject your form with qRules and include Term Set APIs

Pre-requisite: qRules must be installed on your machine.

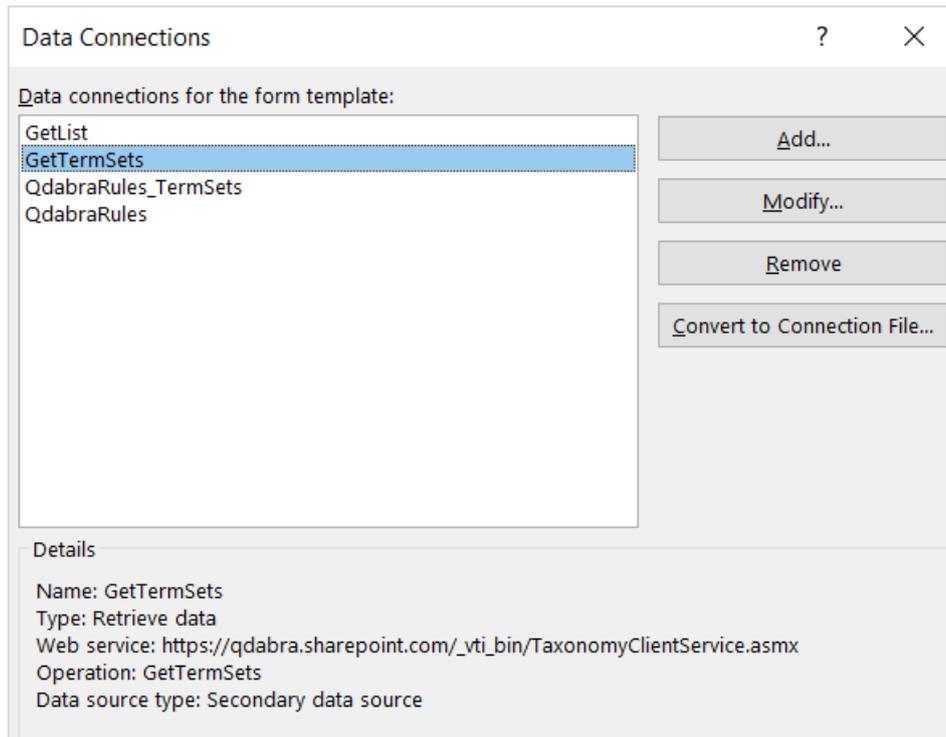
1. Make sure the form template is closed.
2. Search for the qRules Injector.



3. Specify the XSN file you wish to inject with qRules.
4. Check the checkbox for Include Term Set APIs.
5. The injector will try to automatically detect the InfoPath version (2007, 2010 or 2013).
6. Choose the type of form you are injecting qRules into. In this case, it is Browser a form.
7. Click the Inject button. You will receive a confirmation dialog when the operation has finished.
8. Close the injector.
9. Now right click on the form template you just injected, and select Design.

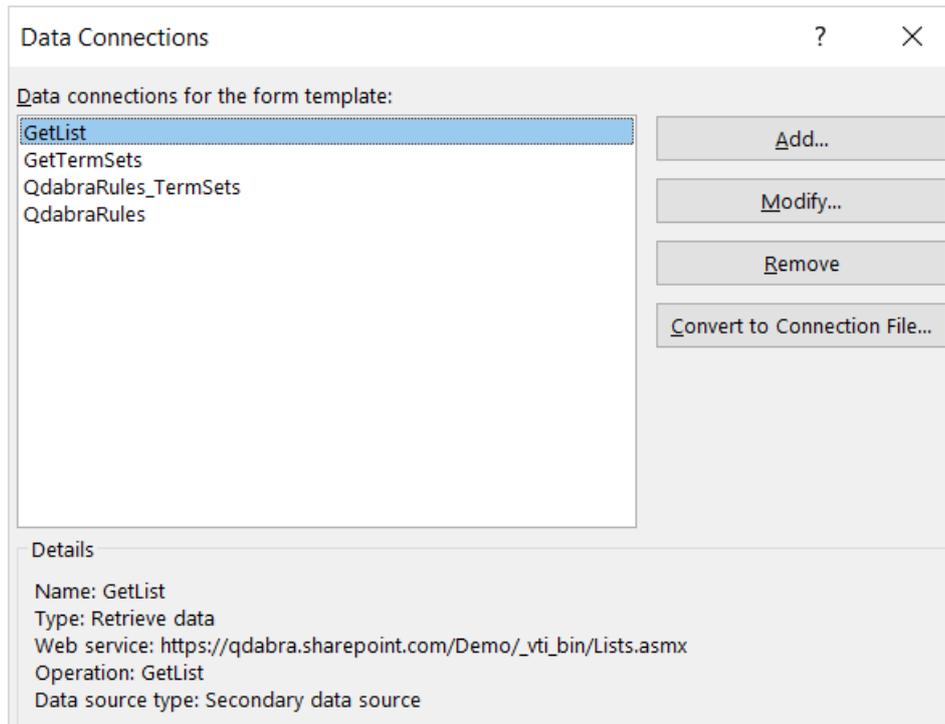
## Add the GetTermSets data connections

1. Go to Data → Data Connections and click Add
2. Select Create a new data connection to and Receive data. Click Next.
3. Select SOAP Web Service and click Next.
4. Enter `http://<servername>/_vti_bin/taxonomyclientservice.asmx` and click Next.
5. Select GetTermSets and click Next.
6. Leave all parameters blank and click Next twice.
7. Uncheck the option to Automatically retrieve data when the form loads and then click Finish. Do not change the default data connection name, since the command will look for that.



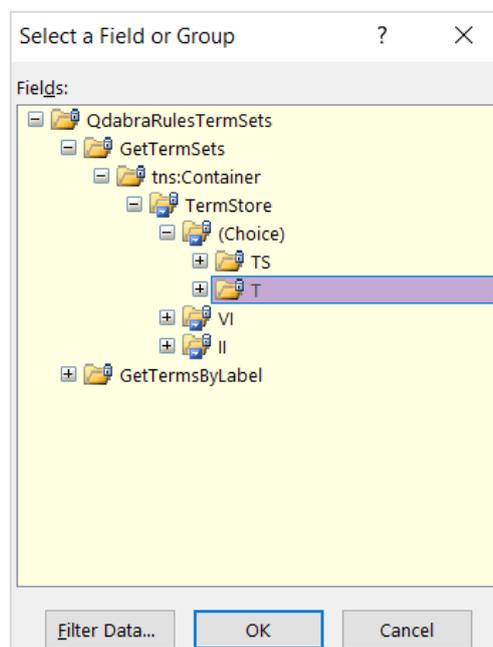
## Add the GetList data connection

1. Go to Data → Data Connections and click Add.
2. Select Create a new data connection to and Receive data. Click Next.
3. Select SOAP Web Service and click Next.
4. Enter `http://<servername>/_vti_bin/lists.asmx` and click Next.
5. Select GetList and click Next.
6. Enter the SharePoint List name and click Next. The wizard should prompt you to enter the same value a second time.
7. Uncheck the option to Automatically retrieve data when the form loads and then click Finish. Do not change the default data connection name, since the command will look for that.

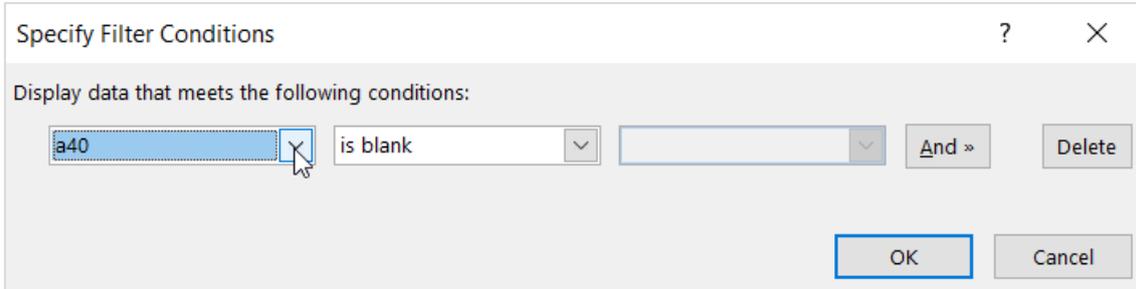


## Load the Term Sets in a dropdown

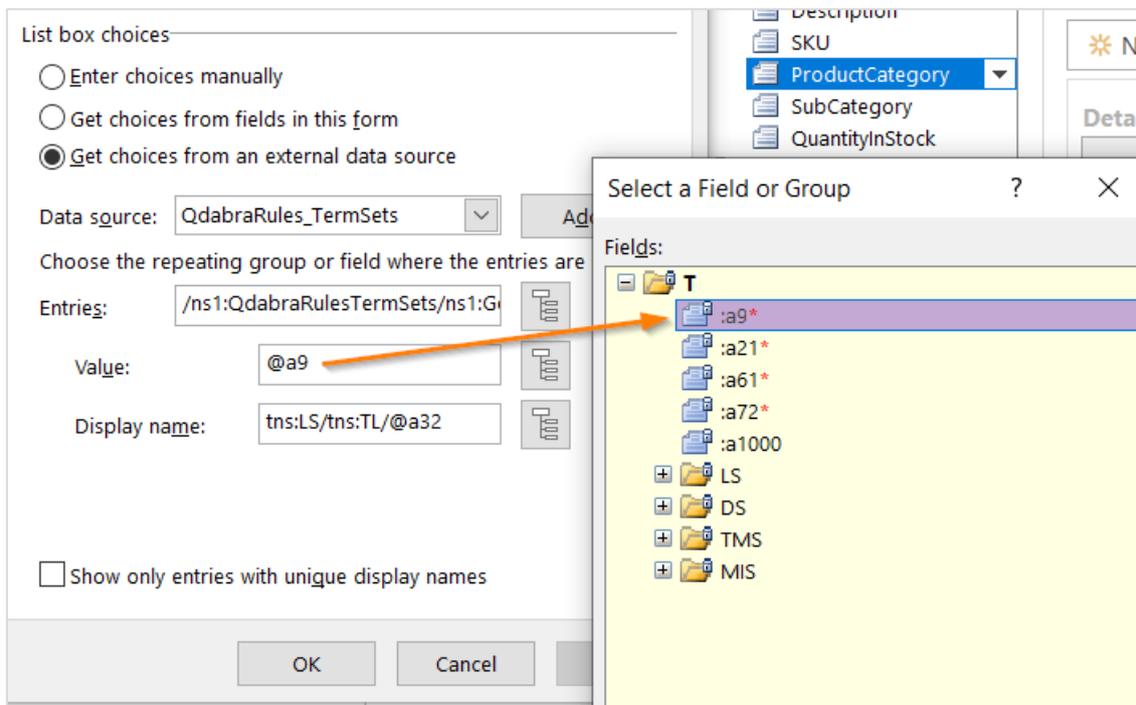
1. Add a dropdown to your canvas.
2. Right click on the dropdown and select Properties.
3. Select "Get choices from an external data source" and select the QdabraRules\_TermSets data connection from the dropdown.
4. For Entries, bind to the node:  
/ns1:QdabraRulesTermSets/ns1:GetTermSets/tns:Container/tns:TermStore/tns:T

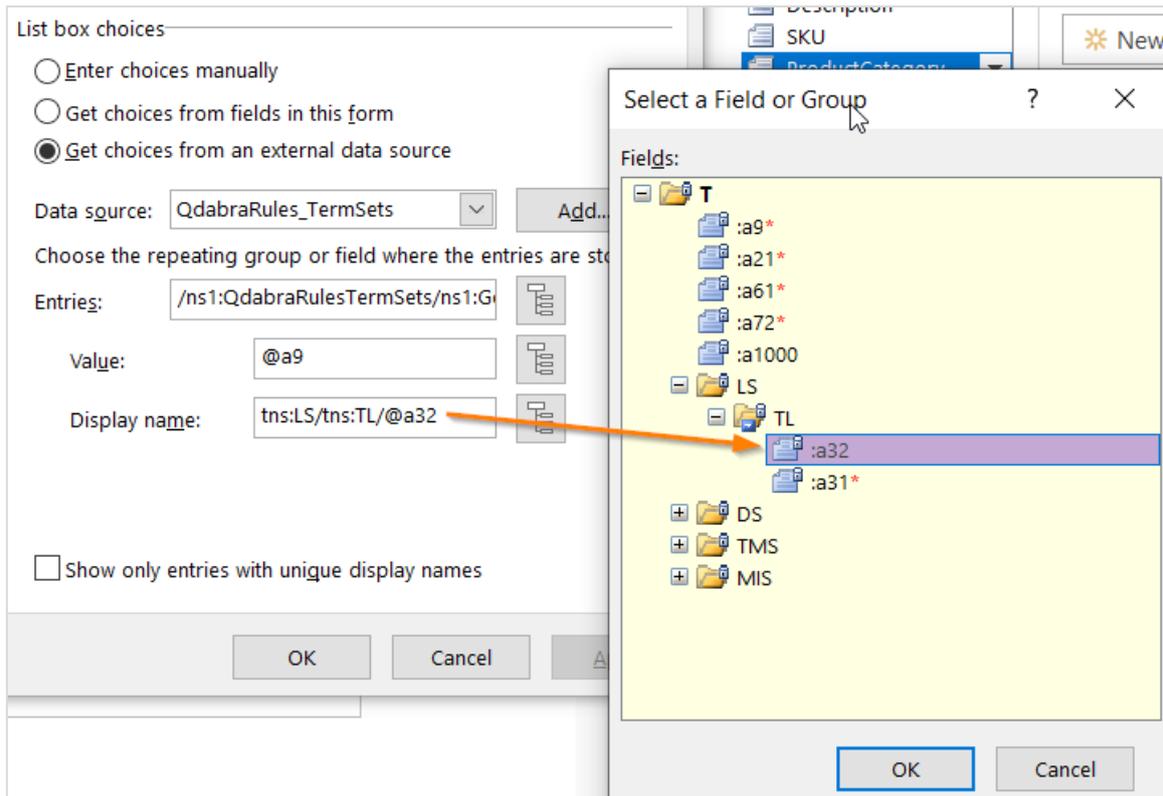


- Click Filter. You will need to filter this selection to ensure you don't get the entire term store returned into this node.
- Click Add. For the filter, select the a40 node in the first dropdown. In the middle dropdown, select is blank.

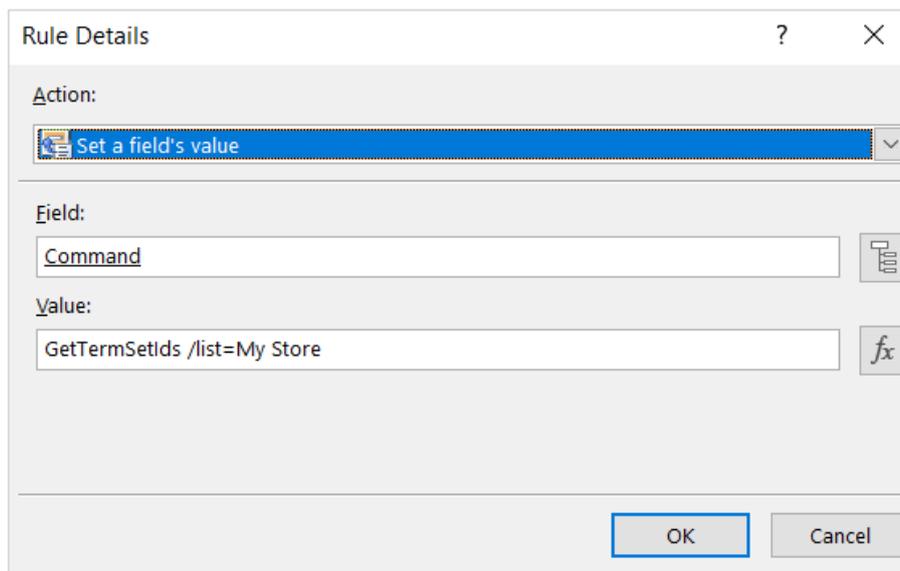


- Bind the Value field to @a9 and the Display field to tns:LS/tns:TL/@a32.

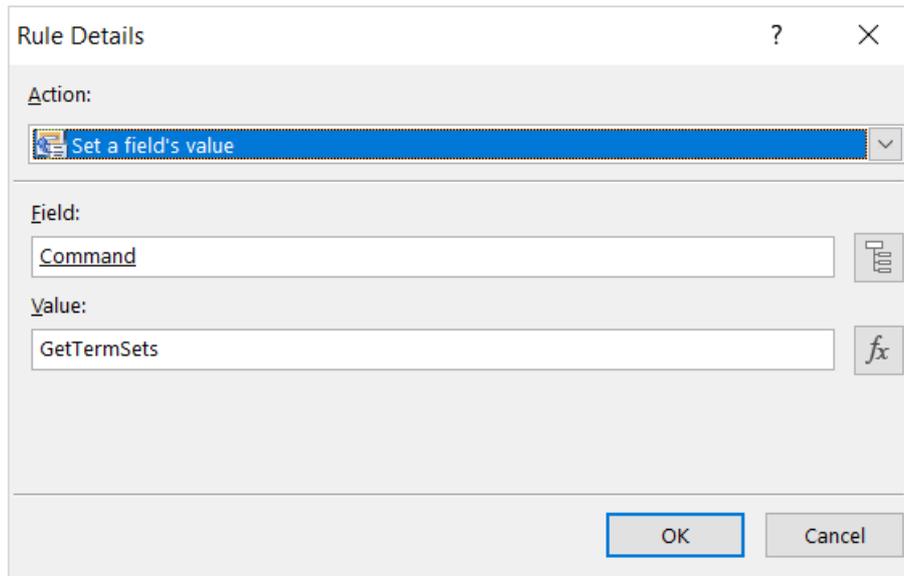




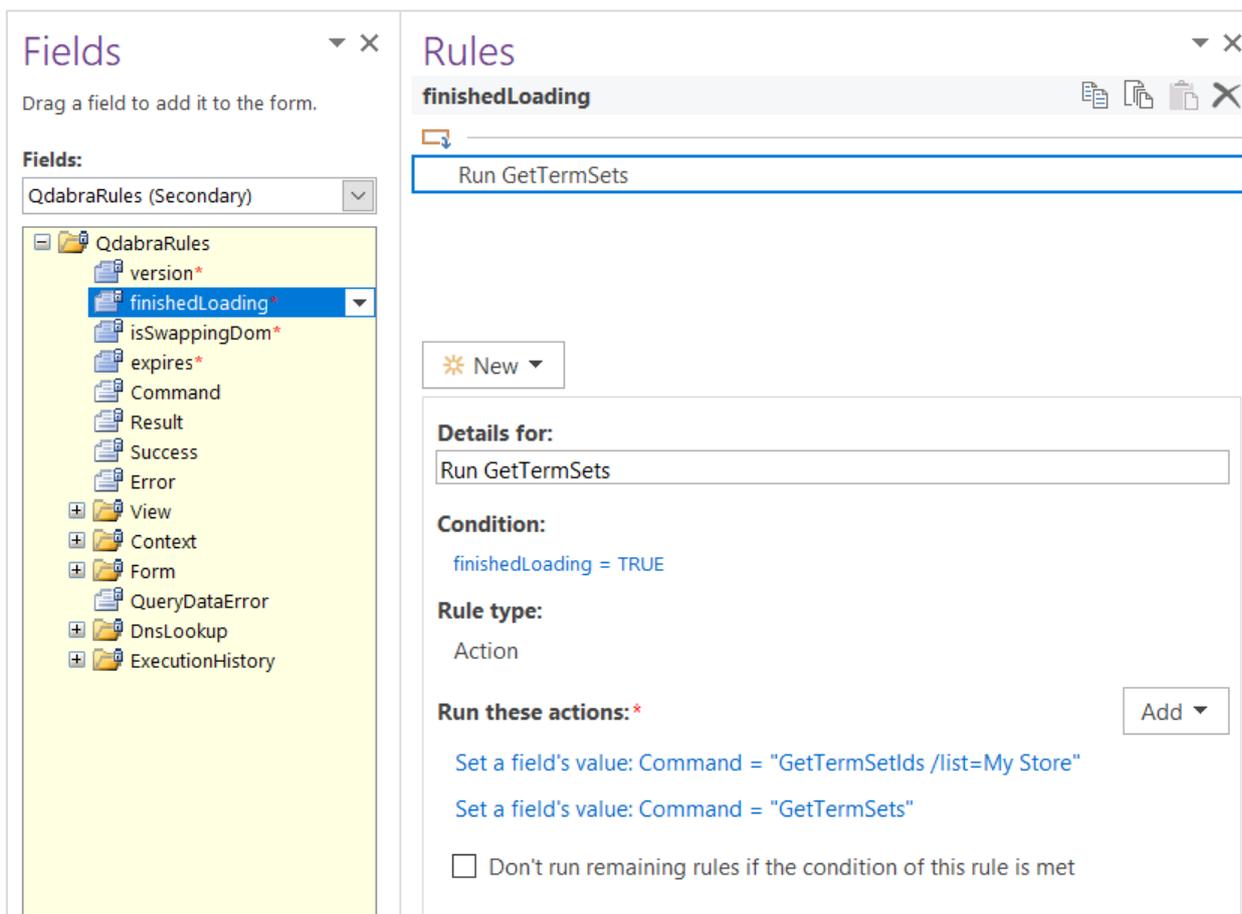
8. Select the finishedLoading node in the QdabraRules secondary data source, then select Home → Manage Rules.
9. Click New → Action.
10. Select Add → Set a field's value. Set the command:  
GetTermSetIds /list=<SharePoint List Name>



11. Select Add → Set a field's value.
12. For the Field, select the Command node in the QdabraRules secondary data source.
13. For the Value, type in GetTermSets.



14. You should have something like:



15. Upload the form to FormsViewer.

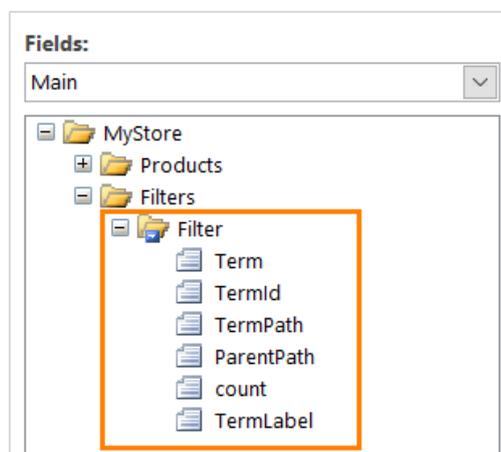
16. Test the dropdown:

## Cascading Dropdowns for Term Sets

1. Make sure all pre-requisites are carried out:
  - Create a Taxonomy in the SharePoint Term Store
  - Inject your form with qRules and include Term Set APIs
  - Add the GetTermSets data connections
  - Add the GetList data connection

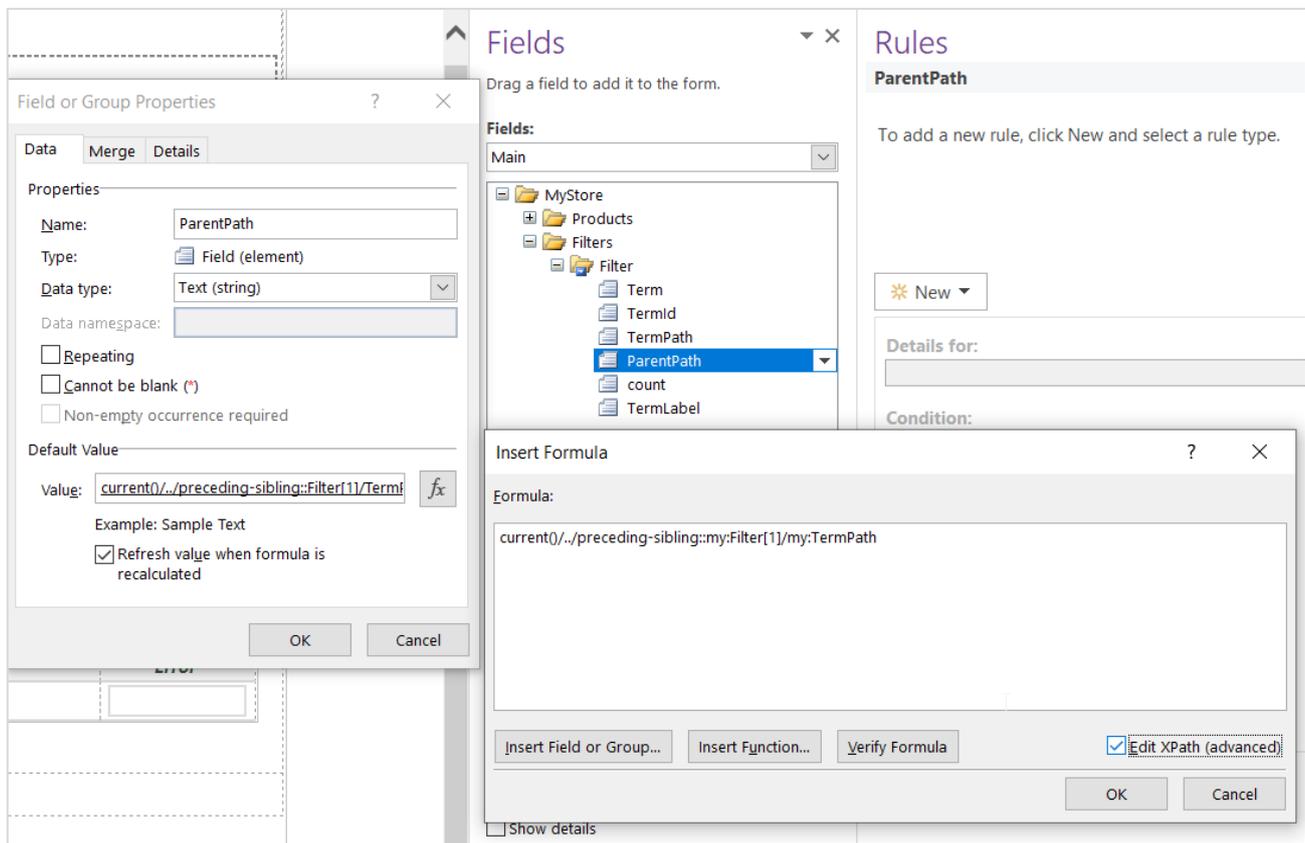
### Design the form

1. Add the following schema to your form.

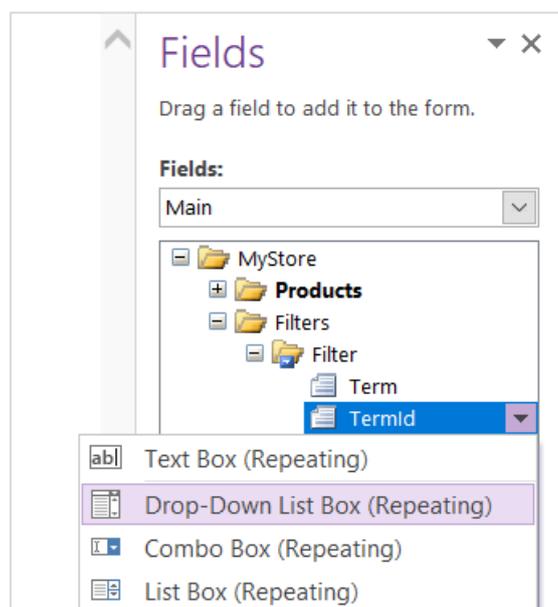


2. Right click on ParentPath and select Properties.

3. Under Default Value, click fx.
4. Paste the function – you need to replace this with your own repeating node:  
**current()/../preceding-sibling::my:Filter[1]/my:TermPath**
5. Click OK twice. The screenshot below shows you the setup for this Default value.

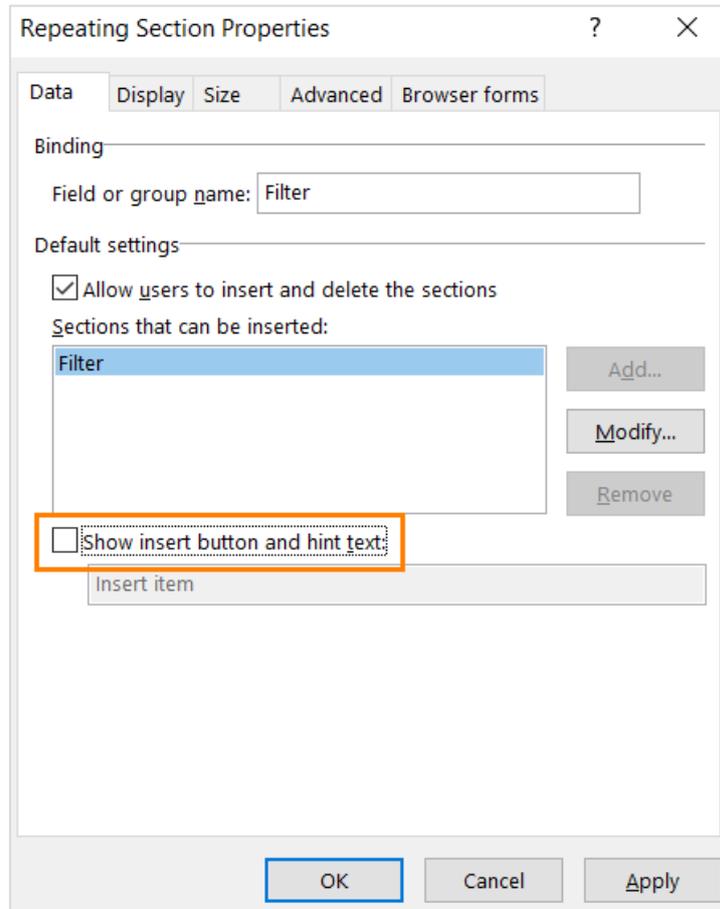


6. Right click on TermId and select Drop-Down List Box (Repeating).

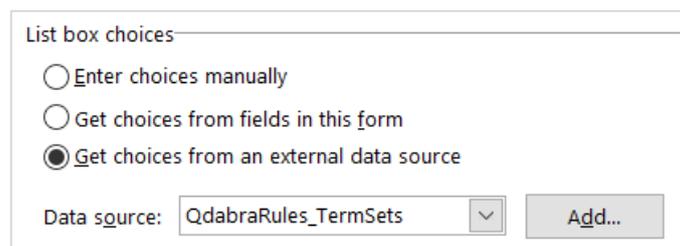


7. Right click on the repeating table and select Properties.

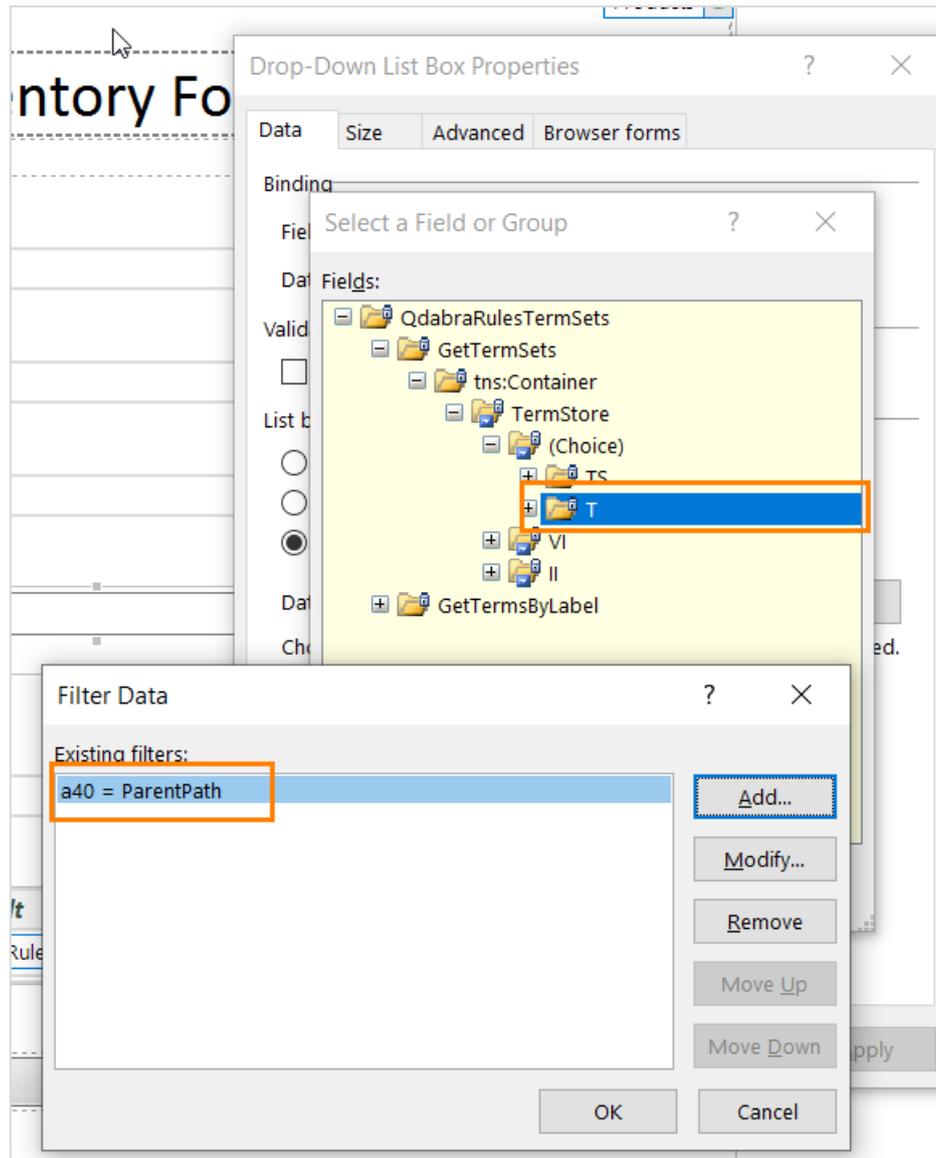
8. Under Default settings, uncheck "Show insert button and hint text", and then click OK.



- 9. Right click on the new dropdown in your canvas and select Properties.
- 10. Under List box choices, select Get choices from an external data source.
- 11. In the Data source dropdown, select the QdabraRules\_TermSets data connection.



- 12. For Entries, select:  
 /ns1:QdabraRulesTermSets/ns1:GetTermSets/tns:Container/tns:TermStore/tns:T[tns:TMS/tns:TM/@a40 = current()/my:ParentPath]



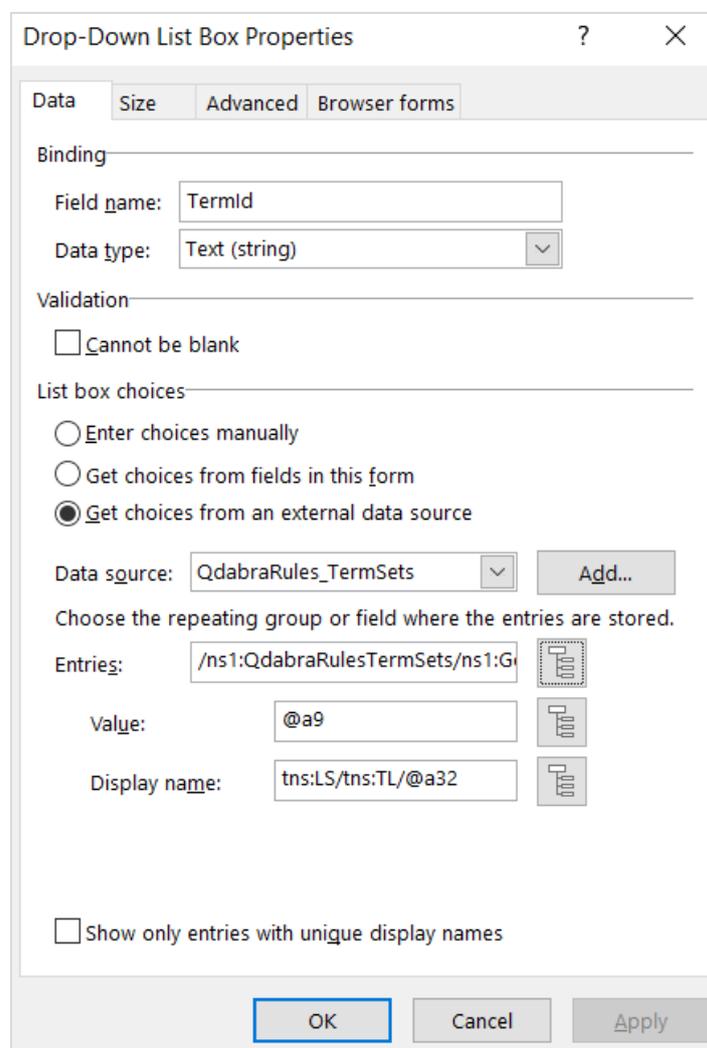
To accomplish this, you will need to select the node:

/ns1:QdabraRulesTermSets/ns1:GetTermSets/tns:Container/tns:TermStore/tns:T

13. Then click Filter Data, and then click Add.
14. When specifying the filter, there will be three dropdowns.
15. In the first dropdown, select the field  
/ns1:QdabraRulesTermSets/ns1:GetTermSets/tns:Container/tns:TermStore/tns:T/tns:TMS/tns:TM/@a40
16. In the third dropdown, select Use a formula and enter current()/my:ParentPath
17. As an alternative, you can select "The expression" in the first dropdown, and enter:  
tns:TMS/tns:TM/@a40 = current()/my:ParentPath



18. Click OK to return to the dropdown list box properties.
19. For Value, select @a9.
20. For Display Name, select tns:LS/tns:TL/@a32.



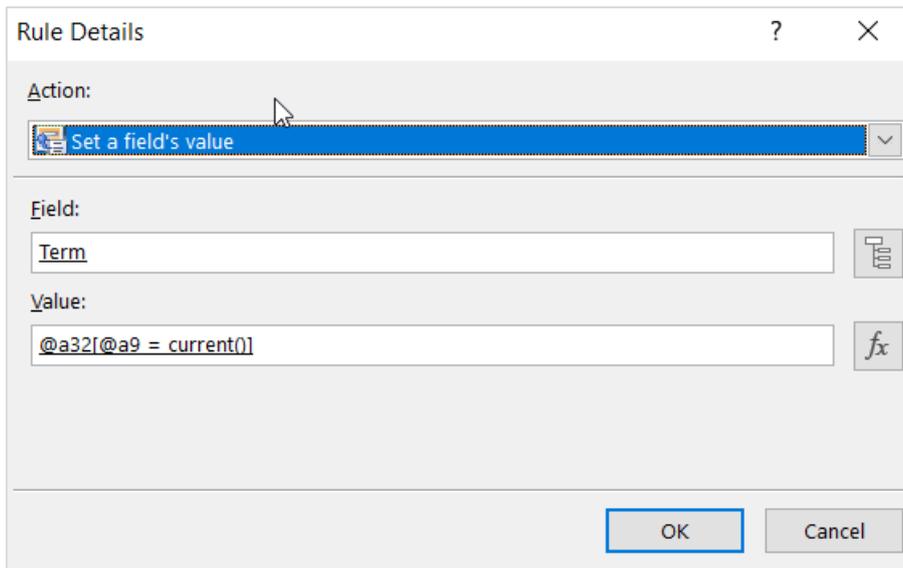
## Add Form Logic On Load

1. Select the finishedLoading node in the QdabraRules secondary data source
2. Select Home → Manage Rules.
3. Click New → Action.
4. Select Add → Set a field's value.

5. For the Field, select the Command node in the QdabraRules secondary data source.
6. For the Value, type in GetTermSetIds.
7. Select Add → Set a field's value.
8. For the Field, select the Command node in the QdabraRules secondary data source.
9. For the Value, type in GetTermSets.
10. Add a condition such that this rule executes only when finishedLoading is true.

### Add rules to the TermInfo table

1. Select the TermId node in the main data source, and then select Home → Manage Rules.
2. Select New → Action.
3. Call this rule Update Sibling Values.
4. Click Add → Set a field's value.
5. For the Field, select the Term node in the main data source.
6. For the Value, click fx and enter  
`xdXDocument:GetDOM("QdabraRules_TermSets")/ns1:QdabraRulesTermSets/ns1:GetTermSets/tns:Container/tns:TermStore/tns:T/tns:LS/tns:TL/@a32[../..../@a9 = current()]`



The screenshot shows a 'Rule Details' dialog box with the following fields:

- Action:** A dropdown menu with 'Set a field's value' selected.
- Field:** A text input field containing 'Term'.
- Value:** A text input field containing '@a32[@a9 = current()]'. To the right of this field is a small 'fx' icon.

At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

7. Click Add → Set a field's value.
8. For the Field, select the Command node from the QdabraRules data connection.
9. For Value, click fx, and enter `concat("GetTermPath /termId=", .)`

Rule Details

Action:  
Set a field's value

Field:  
Command

Value:  
concat("GetTermPath /termId=", .)

OK Cancel

10. Click Add → Set a field's value.

11. For the Field, select the TermPath node.

12. For Value, select the Result node from the QdabraRules data connection.

Rule Details

Action:  
Set a field's value

Field:  
TermPath

Value:  
Result

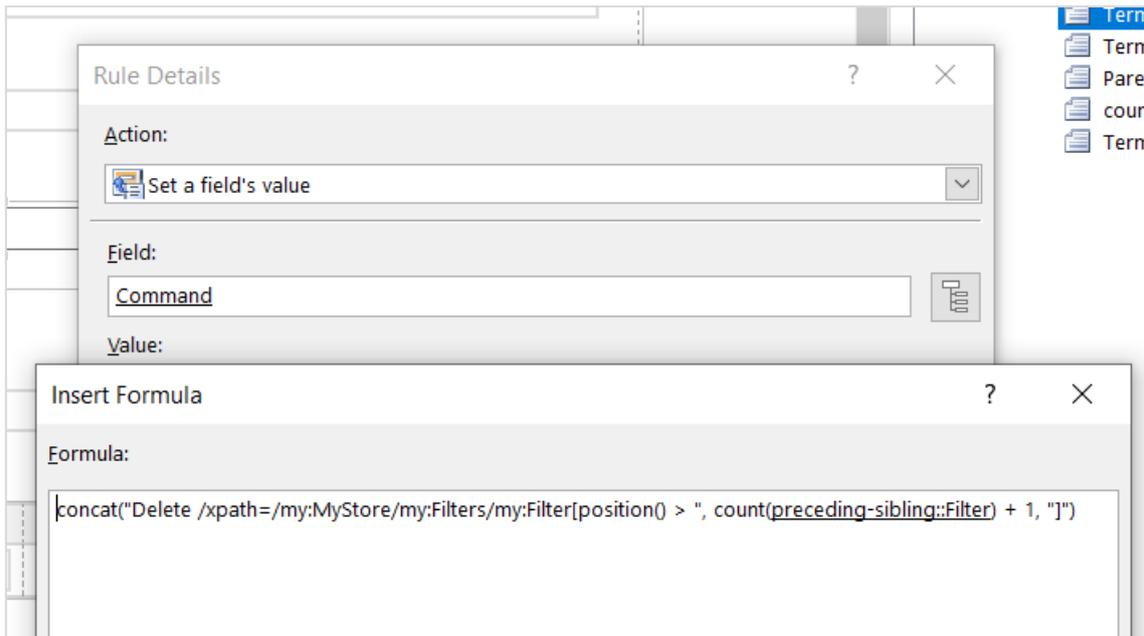
OK Cancel

13. Select New → Action.

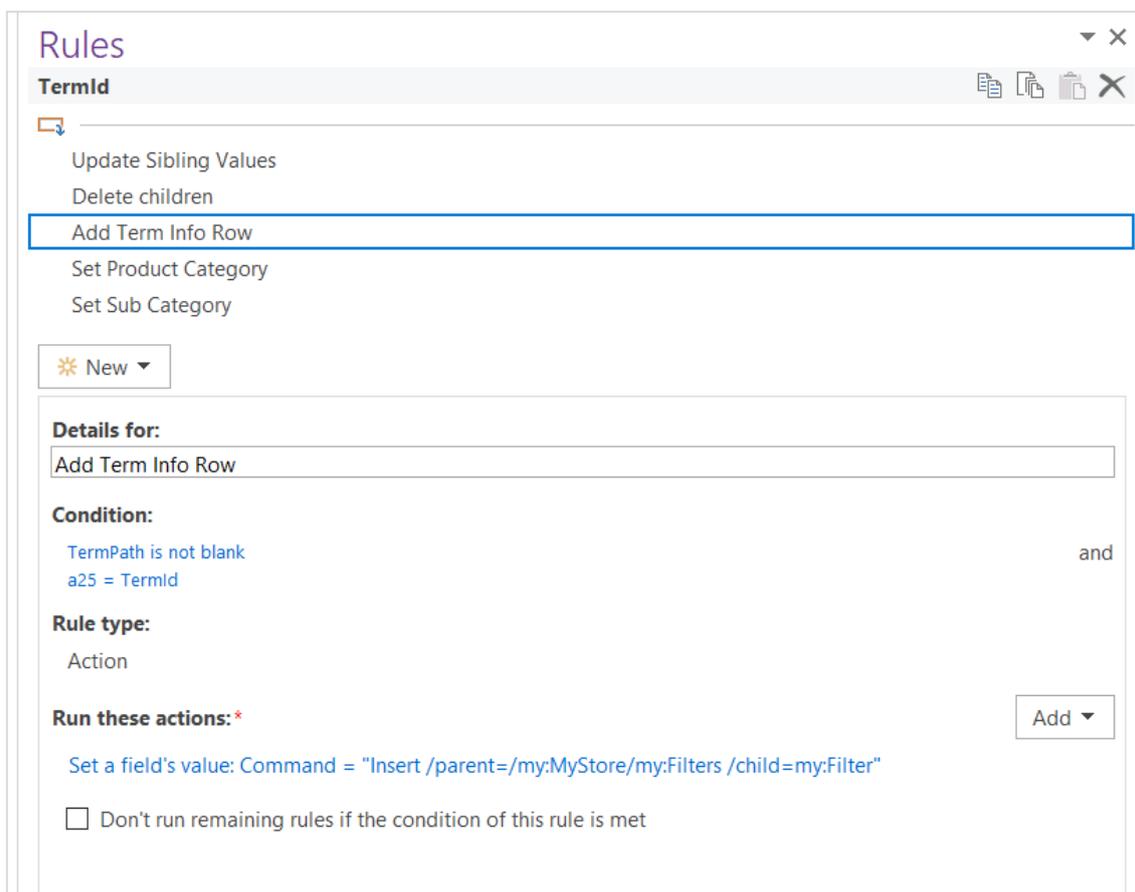
14. Call this rule Delete children.

15. Set the qRules Command node to:

```
concat("Delete /xpath=/my:MyStore/my:Filters/my:Filter[position() > ", count(..preceding-sibling::my:Filter) + 1, "]")
```



16. Click OK.
17. Select New → Action.
18. Call this rule Add Term Info Row.
19. Click Add → Set a field's value.
20. For the Field, select the Command node from the QdabraRules data connection.
21. For Value, enter Insert /parent=/my:MyStore/my:Filters /child=my:Filter





Product Category:

Beverages

Coffee

Coffee

Fresh Milk

Juices and Smoothies

Sports Drink

Tea

## Contact Information

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**Website:** <http://www.qdabra.com>  
**Community:** <http://www.infopathdev.com>