



Tutorial Creating a Complicated Filter


Tutorial

Time: 5 minutes
Skill level: Medium
Editions: Reader, Basic, Professional



Learning objective(s)

- ⇒ Constructing a complicated filter
- ⇒ Tagging a variable for filtering

Activities

1. Open `Tutorial 3.Q`, which will be in `c:\Program Files\Q\Examples` (unless Q has been installed in a different location on your computer).
2. Click on the **Variables and Questions** tab at the bottom of the screen.
3. Right-mouse-click on the header for the first row and select **Insert Variable(s) and Binary – Complicated Filter...**
4. Observe in the top-right panel the text `Undefined Filter Term` in white font with a grey background. This is a filter condition that is yet to be defined.
5. Also observe that the text under the top-right panel describes the complete filter, which as yet is undefined.
6. Select **Gender** from the **Variables and Questions** panel at the bottom-left of the **Construct Binary Variable** dialog box.
7. Select **Any of** from the **Contains** box.
8. Select **Male** from the **Values** box. Observe that the filter condition created in Steps 6 to 8, namely that `Gender is Male`, is shown in the first line of text in the top-right panel. Note also that the description of the complete filter shown underneath this panel has been automatically updated.
9. Click on **AND**. This places the filter condition under an AND node.
10. Click the  button. This creates a copy of the filter condition that was created in Steps 6 to 8. The copy can be edited and used as a second filter condition. Other filter conditions are added to the filter in the same way.
11. Create a filter for men under 30 using the techniques you learned in Steps 6 to 8. Observe

the filter conditions in the top-right panel and the description of the complete filter underneath update automatically.

12. Click on the  button
13. Select **Pasta Sauce Buying – monthly or more often** from the **Variables and Questions** box.
14. Select **Any of** in the **Contains** box.
15. Select **Sloppy Joes** from the **Values** box.
16. Highlight the expression you just added to the top-right panel by clicking on the expression **“Pasta Sauce Buying – monthly or more often” Any of “Sloppy Joes”**.
17. Click **OR**. By highlighting the last expression and then clicking **OR**, you are *nesting* this instruction within the overall instructions – e.g., Male + Under 30 years + (Sloppy Joes or ...).
18. In the top-right panel highlight the expression under the **OR** node.
19. Click on the  button.
20. Select **Al Romano’s** in the **Values** box (taking the place of **Sloppy Joes** in this term).
21. Change the **Name** to Munder30SJorAR.
22. Change the **Label** to Males under 30 who buy Sloppy Joes or Al Romano’s at least monthly. Your screen should look like Figure 1. A **Name** and **Label** is necessary because the filter is also binary variable.

01 Construct Binary Variable

Name: Munder30SJorAR = 1 if: AND
 else = 0

Label: Males under 30 who buy Sloppy

Comment: more...

Logical Expression:
 AND
 - "Gender" Any of "Male"
 - "Age" Any of ("Less than 18" "18 to 24" "25 to 29")
 - OR
 - "Pasta Sauce Buying - monthly or more often" Any of "Sloppy Joes"
 - "Pasta Sauce Buying - monthly or more often" Any of "Al Romano's"

Current term (selected above):
 Variables and Questions: Find: Gender, Age, Pasta Sauce Buying - monthly or more often, Giuseppe Verdi's [Exciting - Boring], Michaels Meatballs [Exciting - Boring]
 Contains: Any of, All of, Only/exactly, None of
 Values: Sloppy Joes, Giuseppe Verdi's, Al Romano's, Michaels Meatballs, Puccini's, Zefzerelli's, Big'n'Chunky, Fasta Pasta, Venti Mumma's

Preview of results: Automatically preview results

	Gndr: Gender	Age: How old are you?	Sloppy Joes	Al Romano's	Result
1	Male	30 to 34	0	0	Not selected
2	Female	30 to 34	0	0	Not selected
3	Female	35 to 39	0	0	Not selected
4	Female	35 to 39	Never	Never	Not selected
5	Male	35 to 39	Never	Never	Not selected

Collapse duplicate inputs Show labels Selected cases: 25/223 (11.21%)

OK Cancel Help

Figure 1. Creating a complicated filter

23. Click **OK**.
24. On the row corresponding to your newly created variable, observe that the **F** in the **Tags** field is highlighted (F W H). This indicates that the variable is available to be used as a filter when analyzing tables.
25. Click on the **Tables** tab and select **Males under 30 who buy Sloppy Joes or Al Romano's at least monthly** in the **Filter** dropdown at the bottom of the screen. With **Gender** in the blue dropdown at the top of the screen, note that the base size is now only 25 (i.e., base n = 25). Note from the table that 100% of these are Male, as the filter ensures.