Things to keep in mind

- Everyone focused on visualizations, but…
  - If the data is garbage or not optimized, you're gonna have a bad time
  - Old records = misleading or incomplete data
- Easy to make Power BI slow or chaotic to use
  - Be organized in your approach

Power BI Overview

- Power BI Desktop Application
  - Get and transform data
  - Create Visualizations and Reports
- Power BI Service
  - Create Apps and Share

Power BI Desktop App

- Windows only application
  - Free, download from Windows store
- Updated monthly
- No reliance on Microsoft Office

Power BI Desktop

Power BI Desktop

- 3 Main screens
  - Report: Build Visualizations
  - Data View: View Data
 - Model: Relationships between Data

Power BI Service

- Online service

- Free: Limited to user's "My Workspace"

  - Can't share with other users

- Pro: Can share with other users

  - $9.99 per user per month

  - Included in Microsoft 365 A5 or E5

Query Editor Introduction

- Queries Available
  - Computer Device Groups
  - Computers
  - Computers - Applications
  - Extension Attributes

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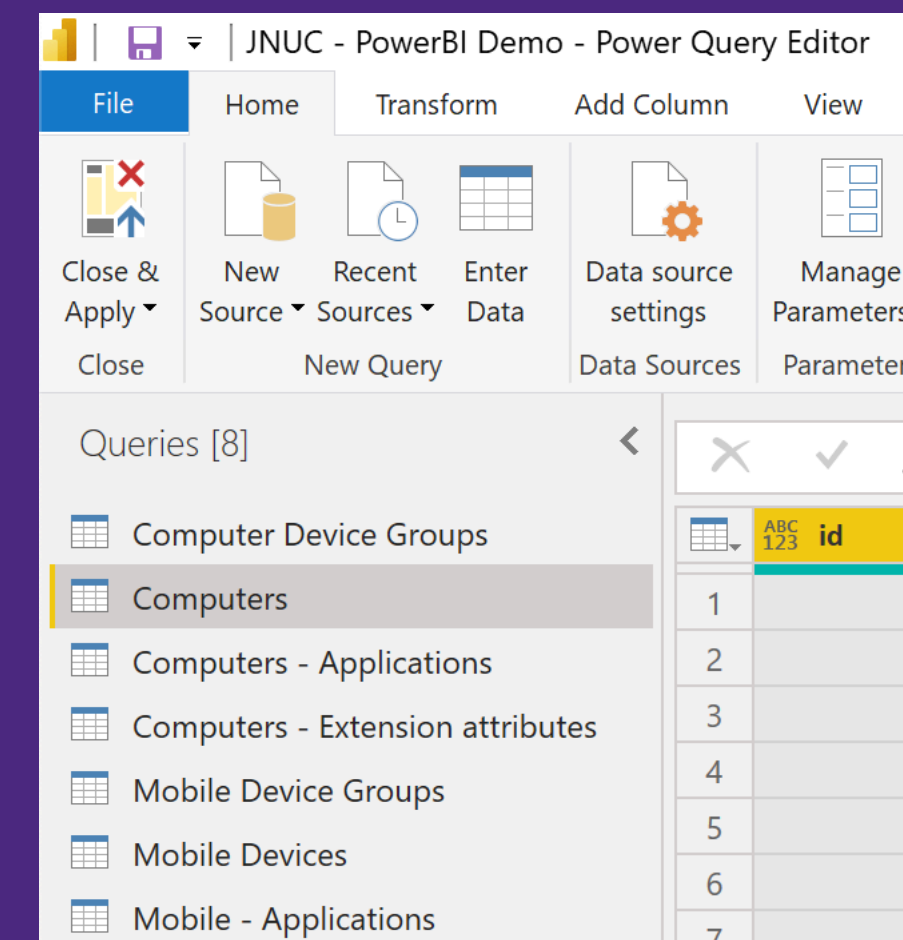
Query Editor Data Types

- Dates are automatically set as String
  - Difficult to build visualizations later
- Example:
  - ComputerDetails.last_enrolled_date_utc

Query Editor Calculated Columns

- Make your own columns based on calculations from other columns
- Can use DAX or M formula language
- Calculated row-by-row (Row Context)
- Beware: Increases the size and memory requirements for the model

Query Editor Calculated Columns

- M (Power Query):
  - Query-Time Transformations to shape the data while you are extracting it
- DAX:
  - In-Memory Transformations to analyze data after you've extracted it

Query Editor Extension Attributes

- We use ~100 Custom Extension Attributes
- Data is organized different from Computers
  - Each row contains computer, extension attribute name, and extension attribute's value

Query Editor Extension Attributes

- Select Computer Extension Attributes
- Choose Columns and Uncheck
  - computerDetails.extAttrs.id
  - computerDetails.extAttrs.type
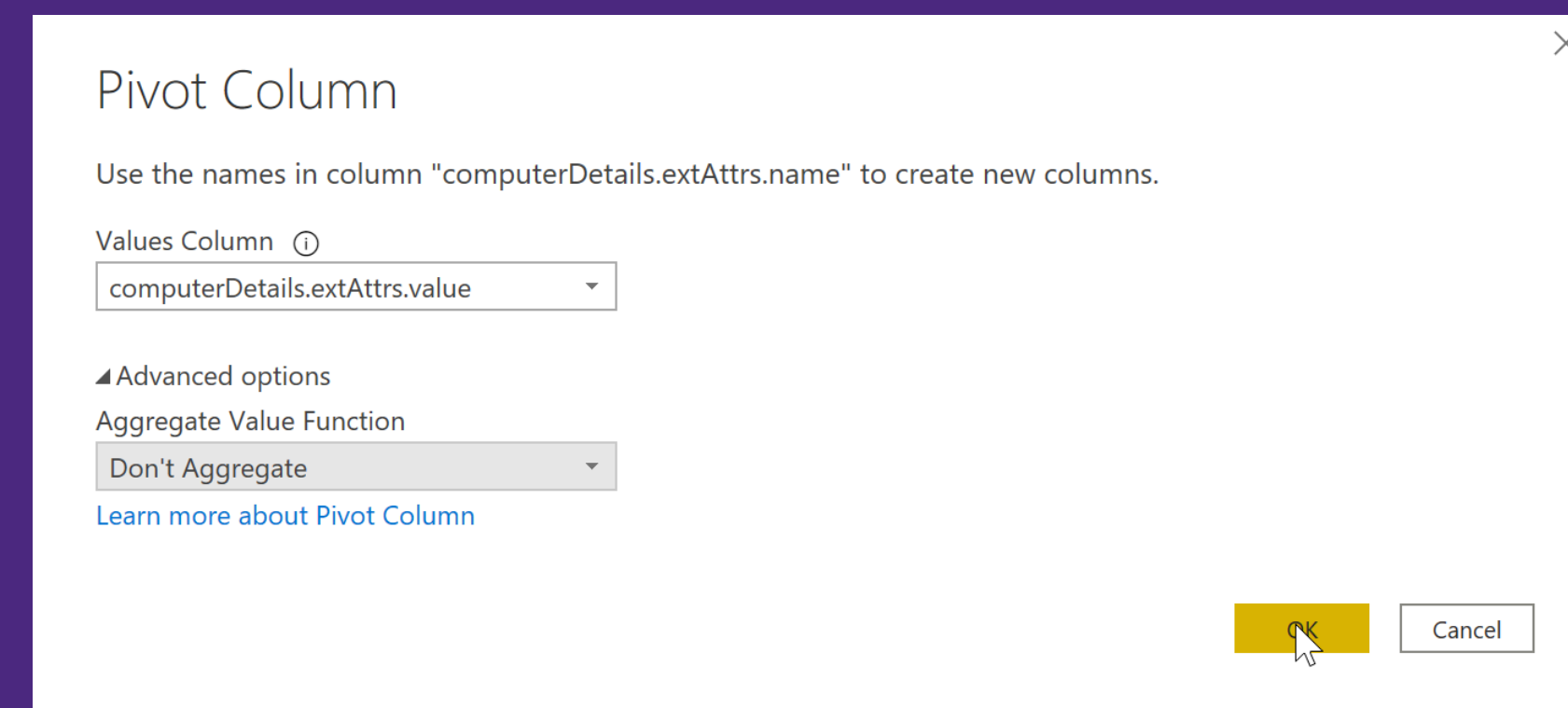
Query Editor Extension Attributes

- Select the computerDetails.extAttrs.name column
- Click Pivot Column

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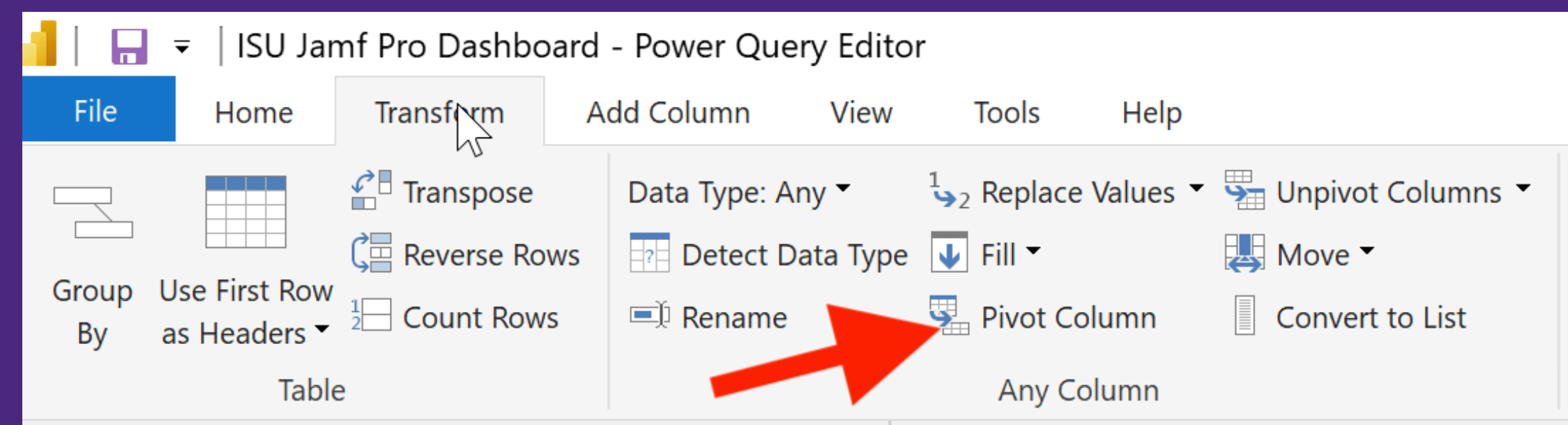
Query Editor Extension Attributes

- Pivot Column Dialog Box
  - Values Column:

    ComputerDetails.extAttrs.value
  - Advanced Options:
    - Don't Aggregate
- Click OK

Pivot Column

Use the names in column "computerDetails.extAttrs.name" to create new columns.

Values Column ⓘ

computerDetails.extAttrs.value ▾

◢ Advanced options

Aggregate Value Function

Don't Aggregate ▾

Learn more about Pivot Column

OK   Cancel

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Query Editor Extension Attributes

- Each Extension Attribute has its own column (Good)
- A row for each computer & extension attribute (Bad)
  - Many nulls!

Query Editor Extension Attributes

- Select id and Name columns

- Right-Click id

  - Unpivot Other Columns

  - This removes excess nulls
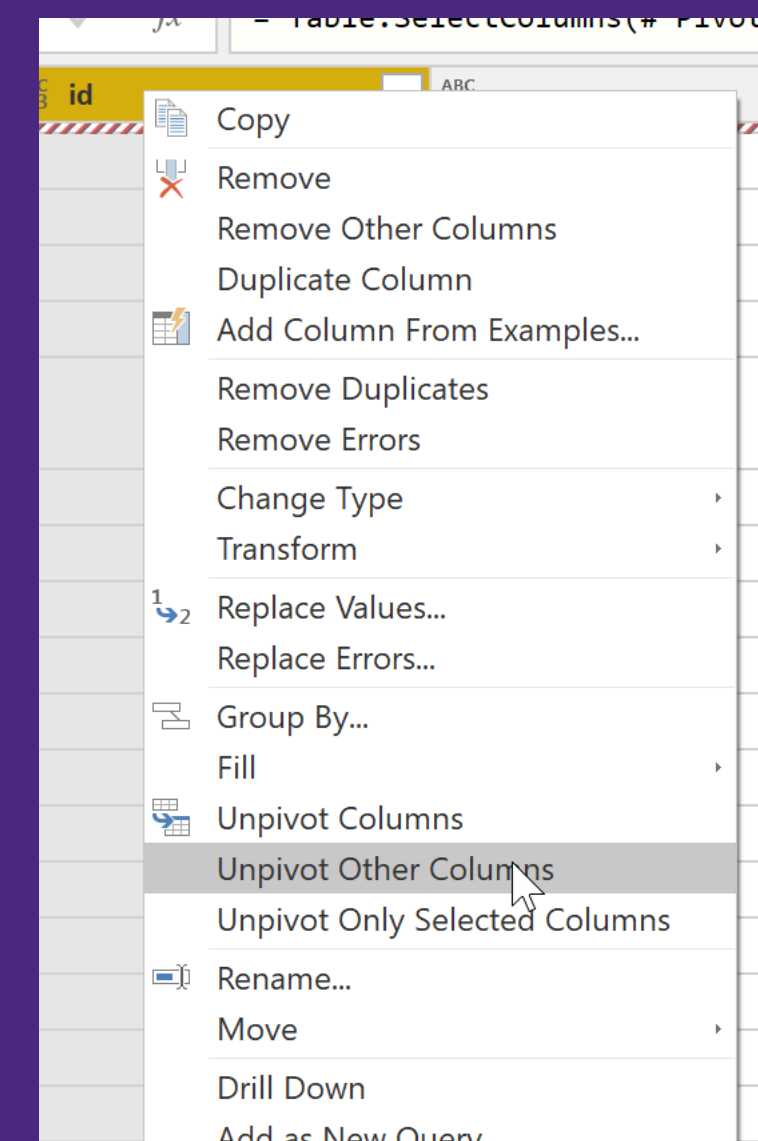
Query Editor Extension Attributes

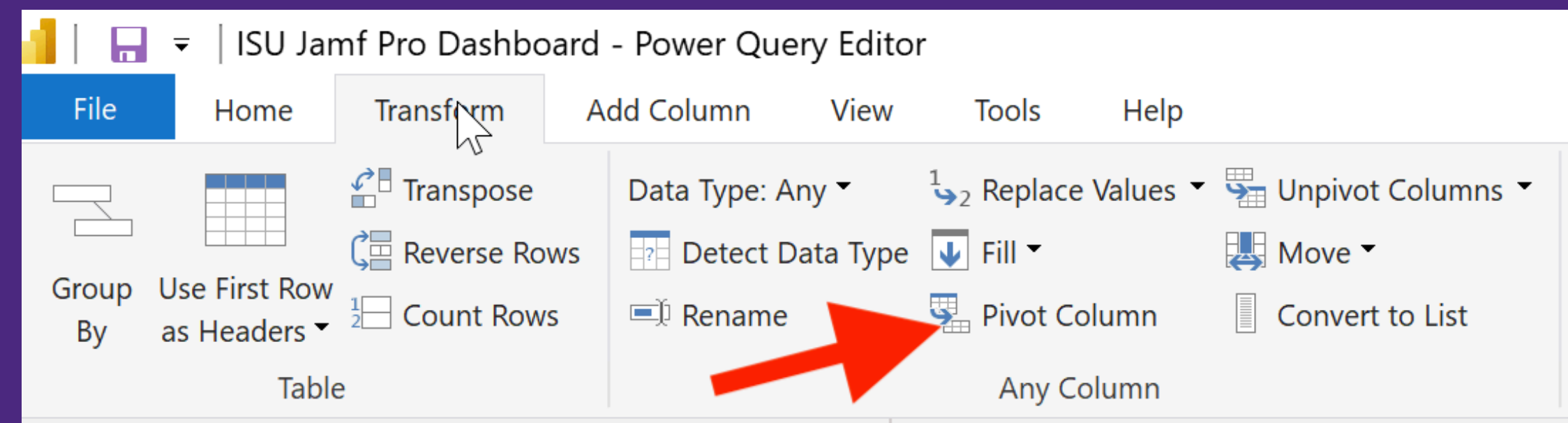- Looks a little better
  - Still have multiple rows per computer

	id	name	Attribute	Value
1	11	AQ0NED	xEA - Time Machine - Backup Destination	Not enabled.
2	11	AQ0NED	xEA - Time Machine - Last Backup Completed	Not enabled.
3	11	AQ0NED	XEA - Time Machine - Status	Disabled
4	11	AQ0NED	xEA - Host name	AQ0NED

Query Editor Extension Attributes
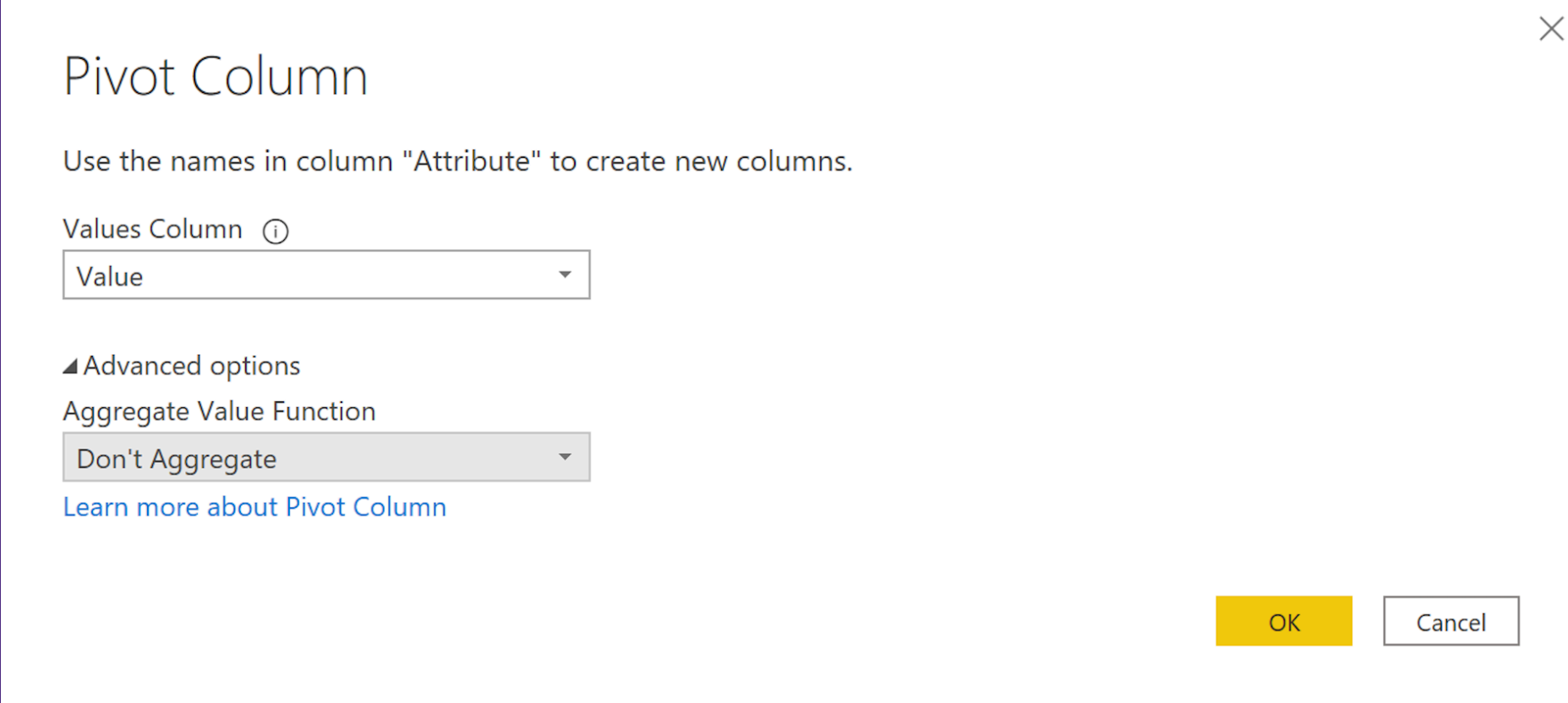
- Pivot Again!
- Select Attribute column
  - Transform tab
  - Pivot Column

Query Editor Extension Attributes

- Pivot Dialog Box
  - Values Column:
    - Value
  - Advanced Options:
    - Don't Aggregate
- Click OK

Pivot Column

Use the names in column "Attribute" to create new columns.

Values Column ⓘ

Value

▲ Advanced options
Aggregate Value Function

Don't Aggregate

Learn more about Pivot Column
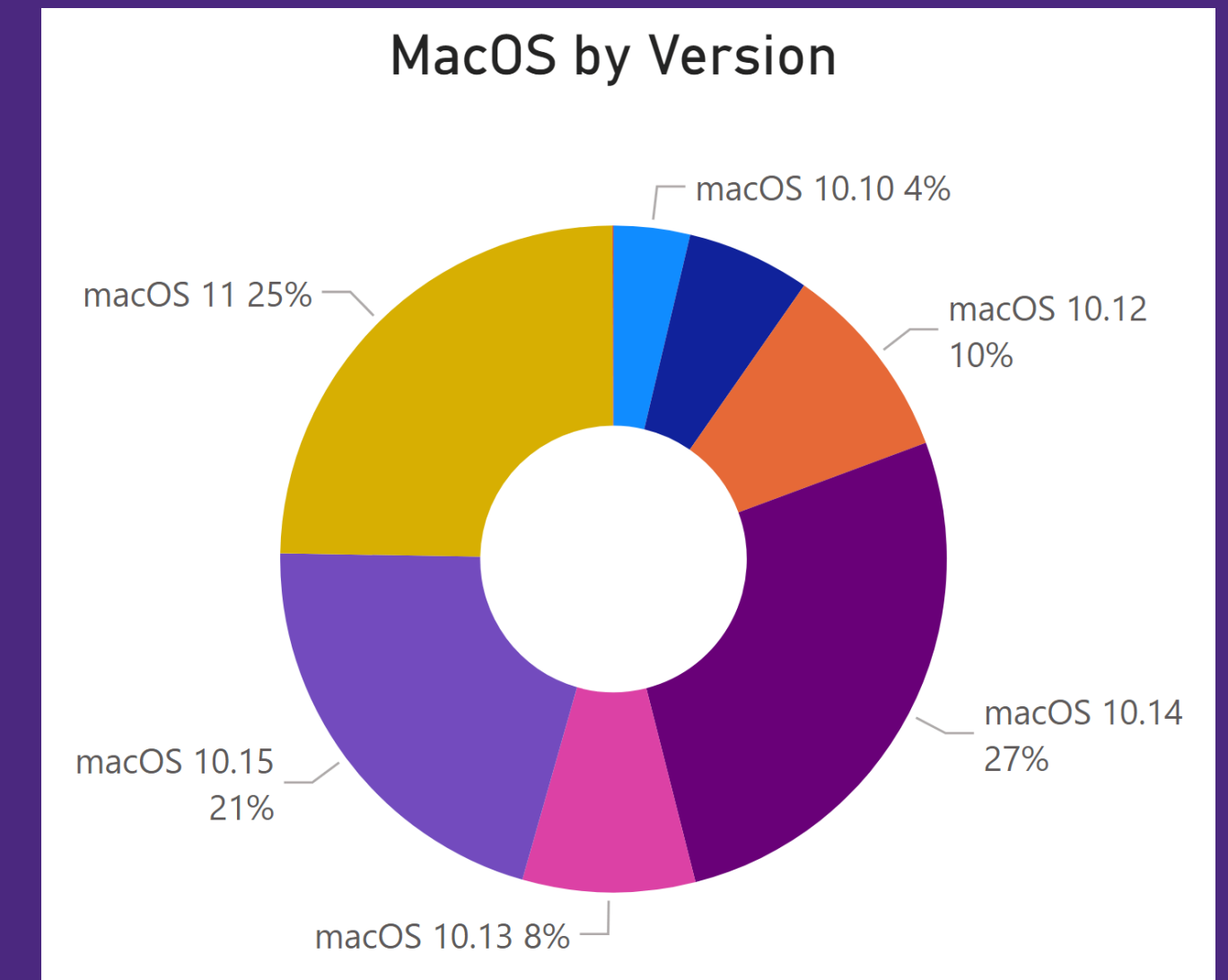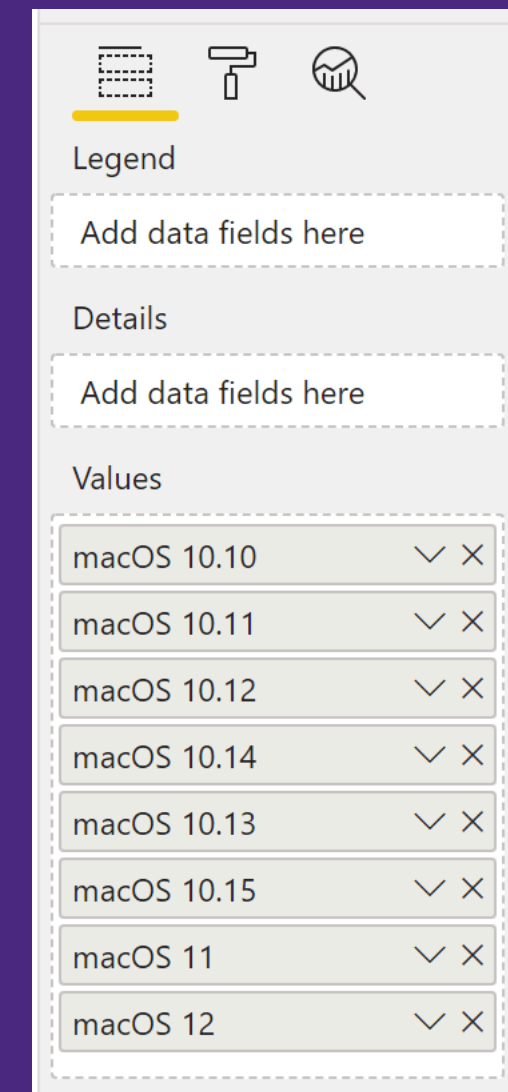
OK   Cancel

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Query Editor Extension Attributes

- Extension Attribute table now matches organization of Computer table
  - This will make it much easier to use in visualizations
  - Click Close and Apply

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Visualizations Tips

- Build Visuals first
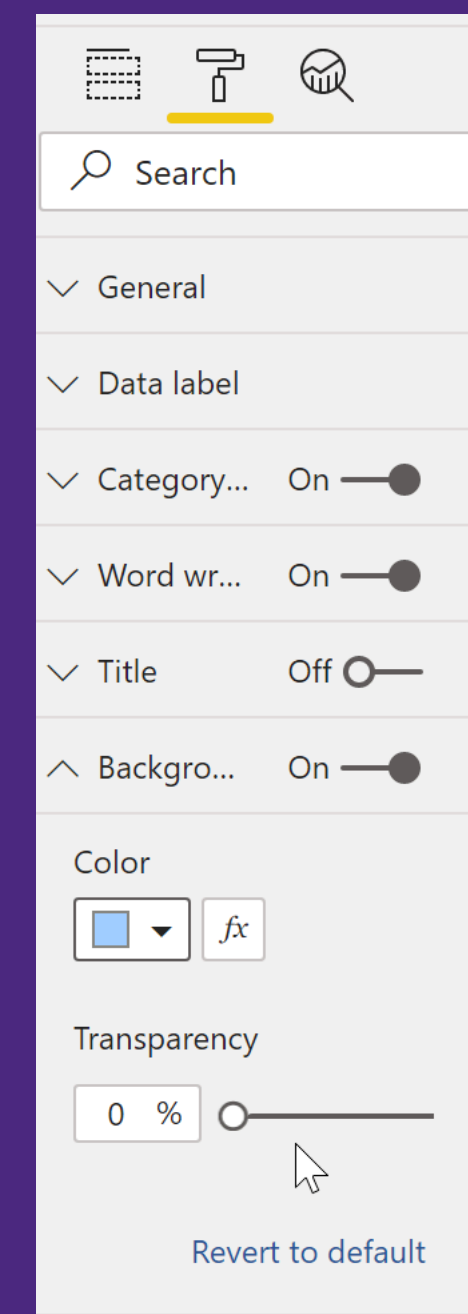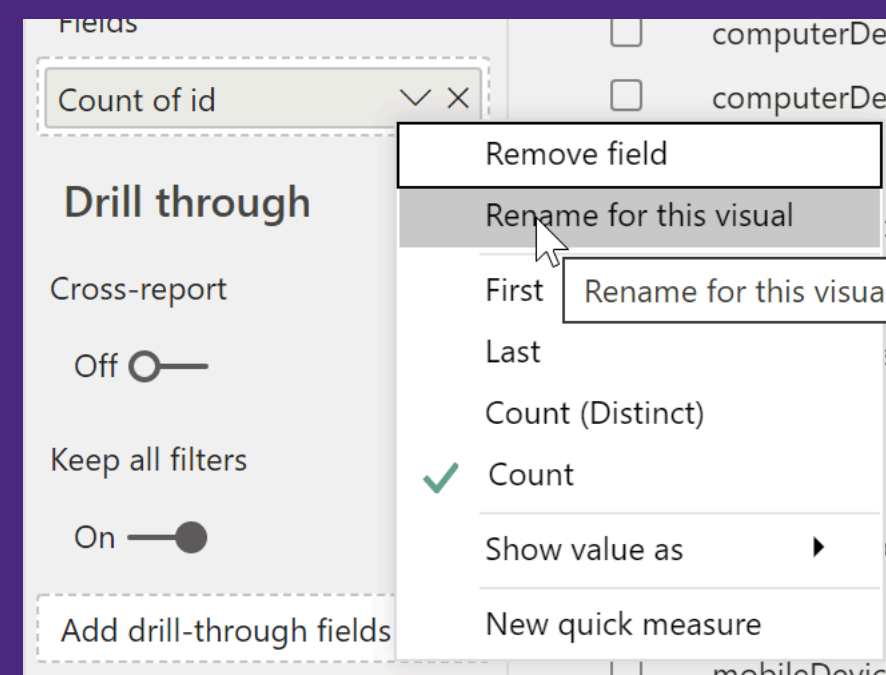 - Use Custom Measures
  - Set Formatting
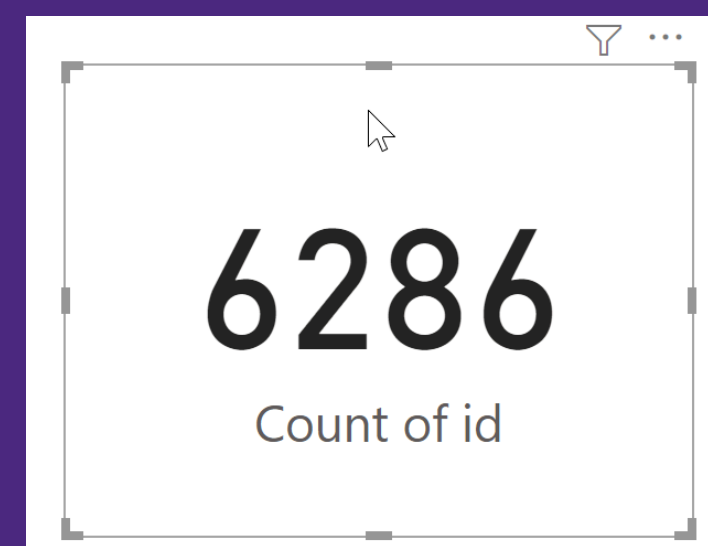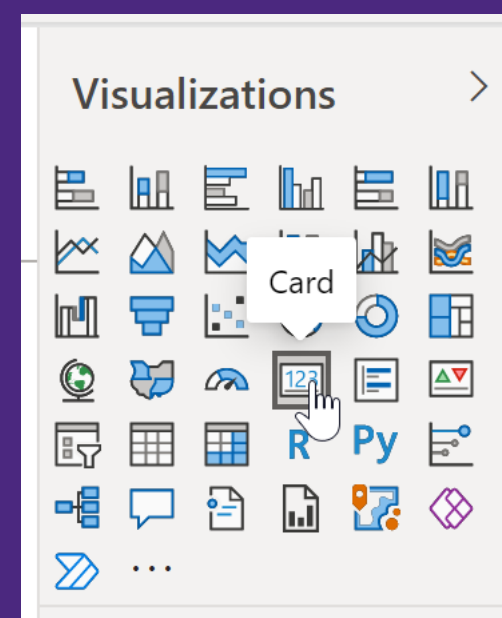- Use Slicers

Visualizations

- Start from far right and work way left
  1. Fields
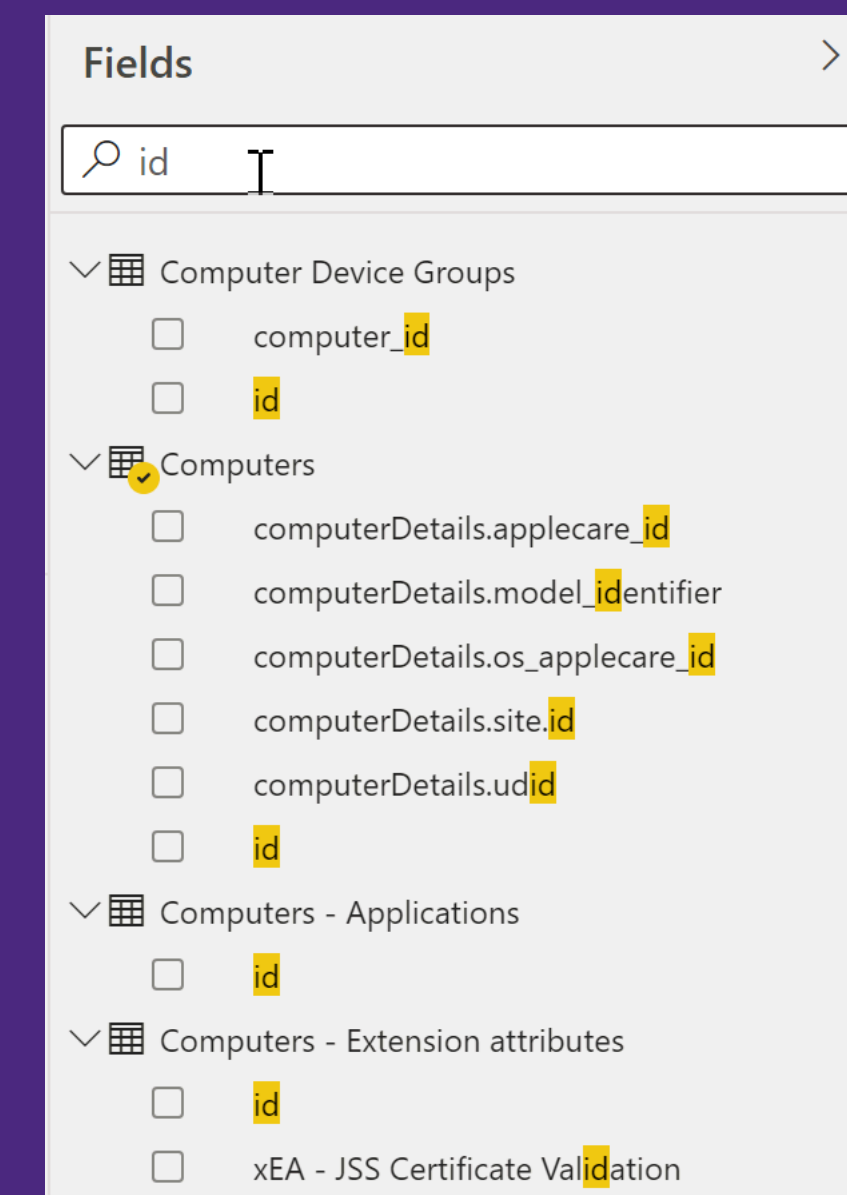 2. Visualizations
  3. Filter

Visualization Example

- Change Label from Count of id
- Change Text size and colors
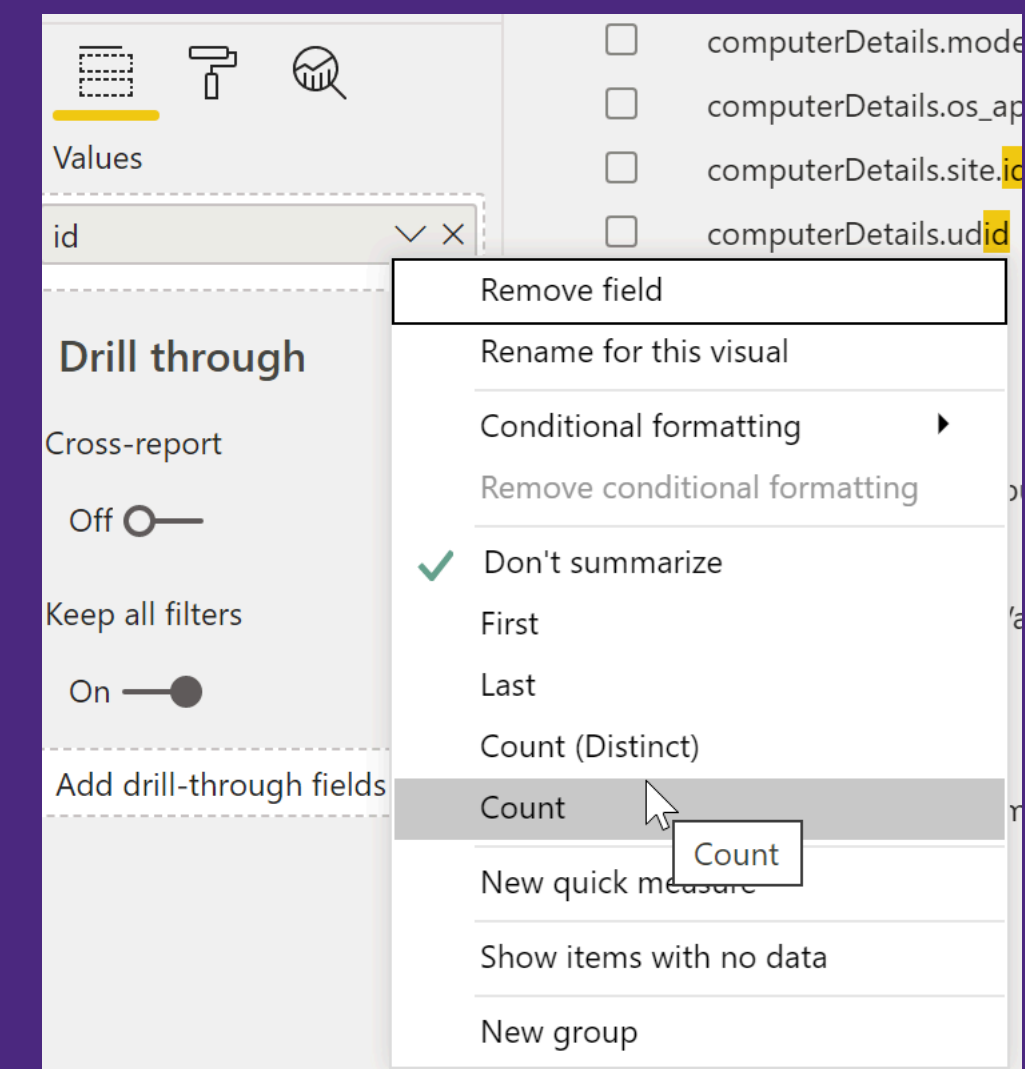 - Click on paint roller icon
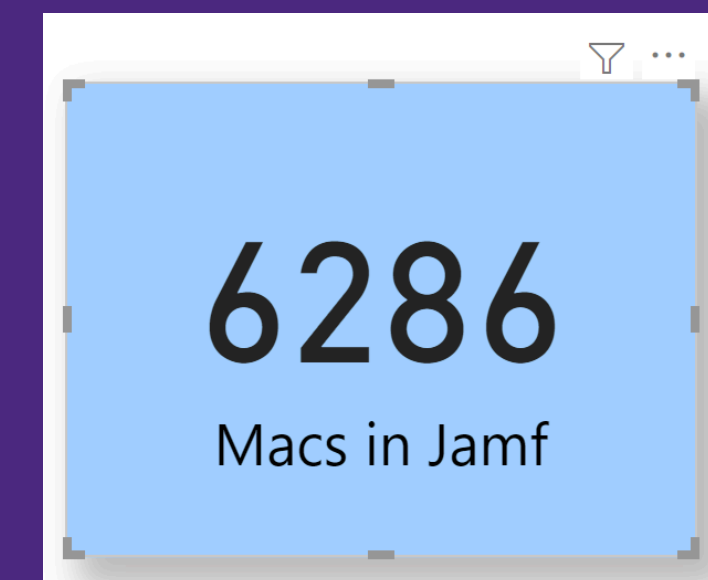
Visualization - Example

- Count of all Computers in Jamf
  - In Fields
  - Use search box
  - Search "id"
  - Click and drag id from Computers to page

Visualization - Example

- Under Visualizations
  - Values click drop down arrow
  - Select Count
- Change visualization from above to Card

Slicers Tips

- In Filters Pane
  - Drop down arrow
  - Advanced Filtering
    - Is not blank
    - Is not empty
  - Apply Filter