Power BI Geodata

HOW TO MAP POSTCODES TO ONS GEODATA

In this Mapping ONS data to postcodes guide

- ✓What is the ONS
- ✓What information can you discover from a postcode
- ✓Where to find postcode data in an easy to use format
- ✓How to map that data to your own data in Power BI
- ✓How to handle potential errors

Please note you will need to have a correctly formatted postcode column in your data set

Produced by Superhighways Sept 2023

What is the ONS?

The ONS is the Office for National Statistics, it is the UK's largest independent producer of official statistics and the recognised national statistical institute of the UK.

https://www.ons.gov.uk/

What information can you discover from a postcode?

If you have a post code for an individual or an organisation you're sitting on the potential to uncover a huge amount of geographical data linked to it using data from the Office of National Statistics (ONS)

For example, they link each post code to:

- ✓County
- ✓Borough
- ✓Local Authority
- ✓London Assembly constituency
- ✓Ward

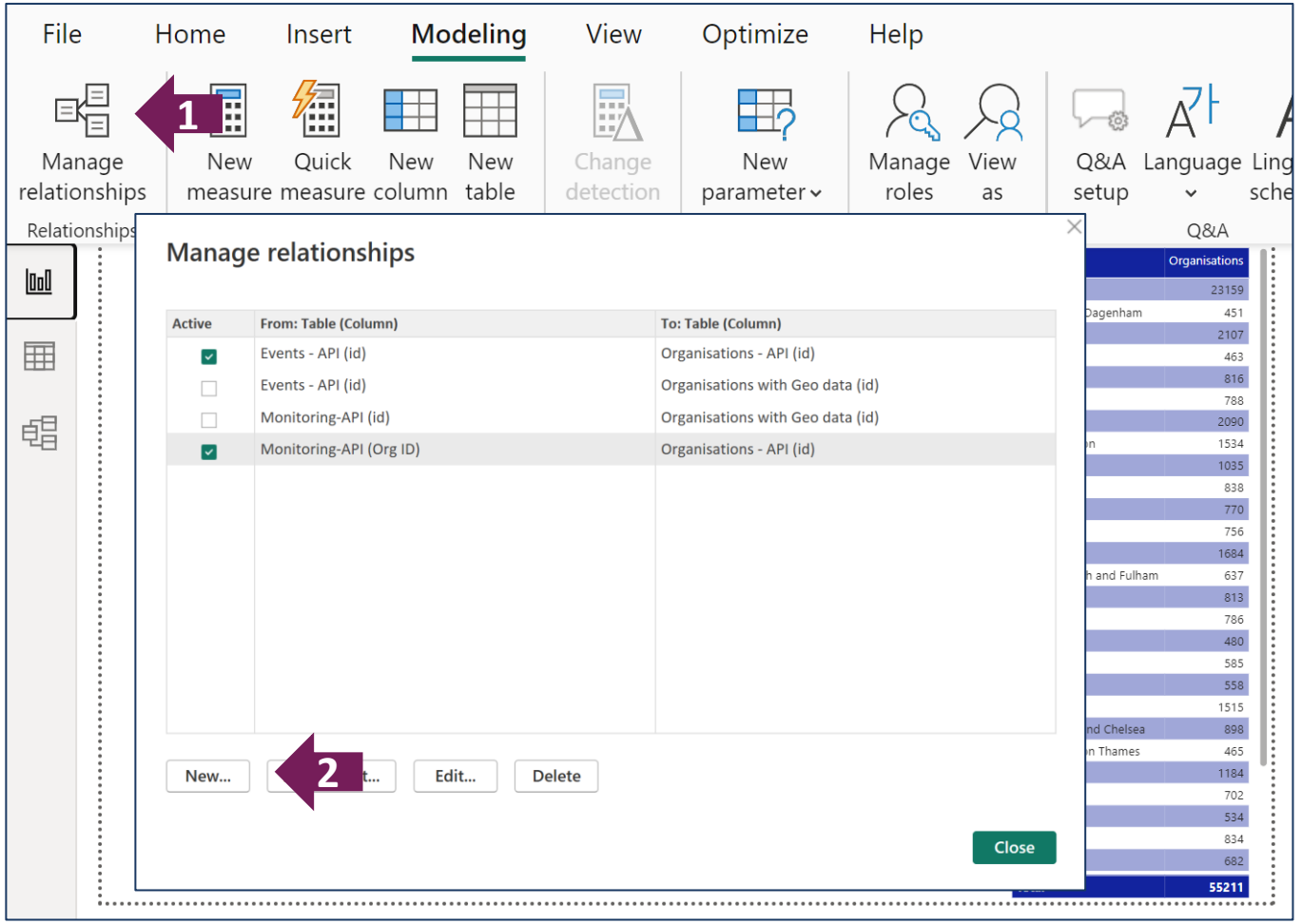
How to map London postcodes to ONS data*

1. Go to https://www.doogal.co.uk/PostcodeDownloads and download the London postcode csv file to a shared drive.
2. Use **Get data** in Power BI to bring the postcode data into PowerBI
3. Name the query **London Postcodes**
4. In **Manage Relationships**, create a relationship between the downloaded London postcode data and your own data (see the next page for detailed instructions)

* The process is the same for other regions but we using London for the example.

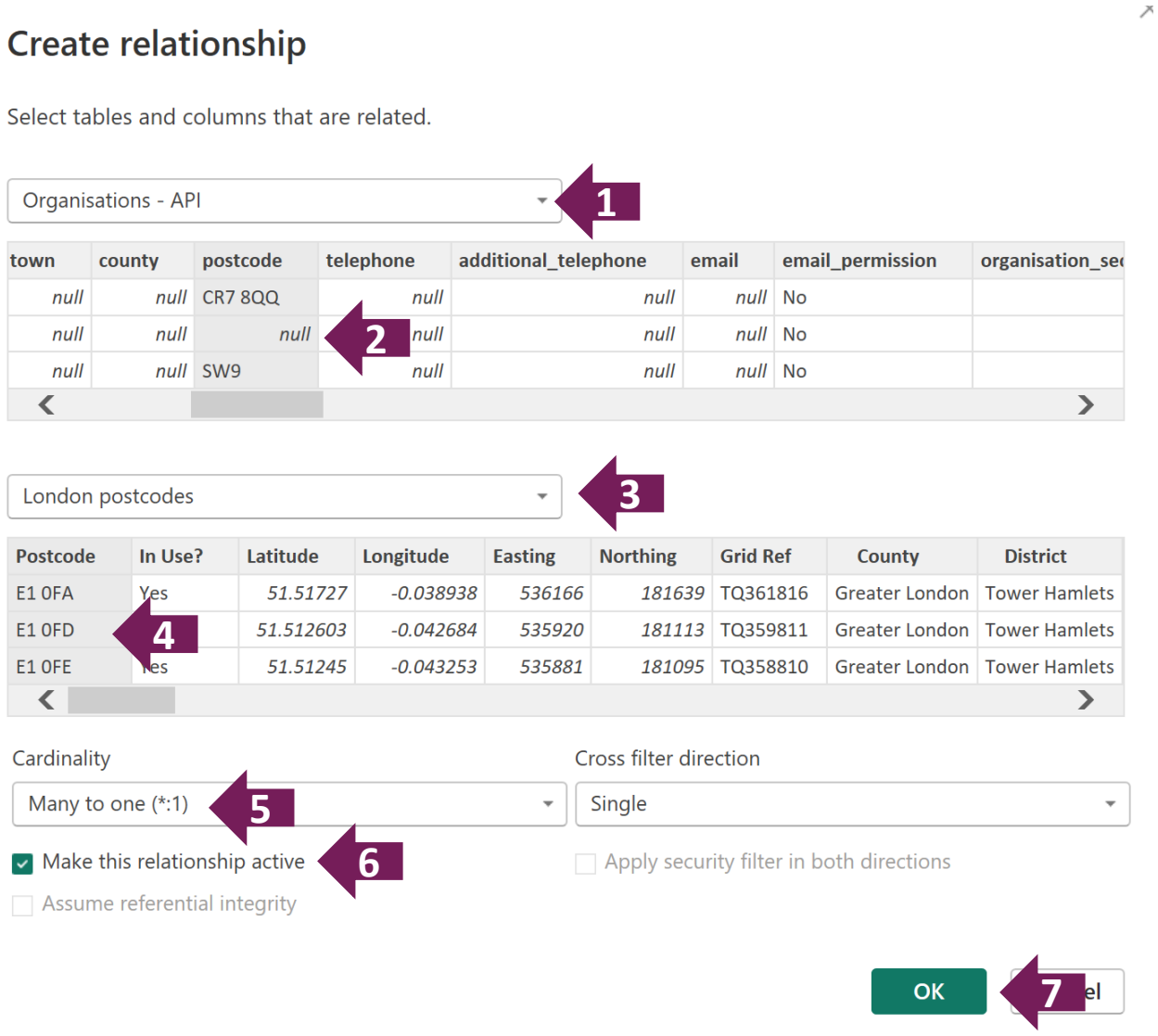
Open the Relationship Manager

1. Select **Manage Relationships** to open the Relationship Manager
2. Click on **New**



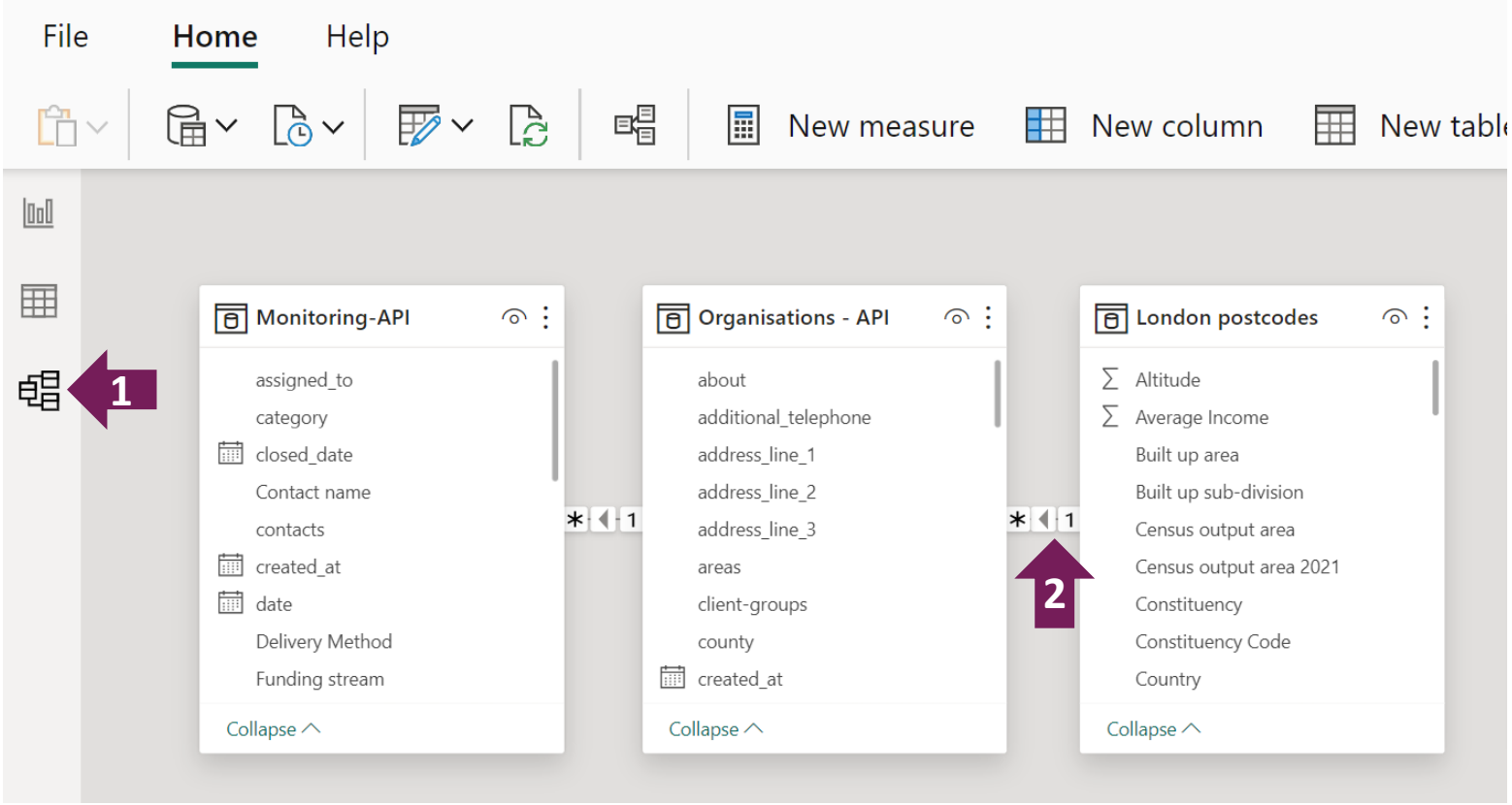
Merge query settings

1. Select the table with your data
2. Select the postcode column in your table
3. Select the postcode table
4. Select the postcode column in the table
5. Cardinality will = **Many to one**
   This is because you might have **many** people or organisations in **one** postcode area
6. Tick the box **Make this relationship active**
7. Click on **OK**



Reviewing the relationship in the data model

1. Click on the data model icon
2. Review the relationship in the model

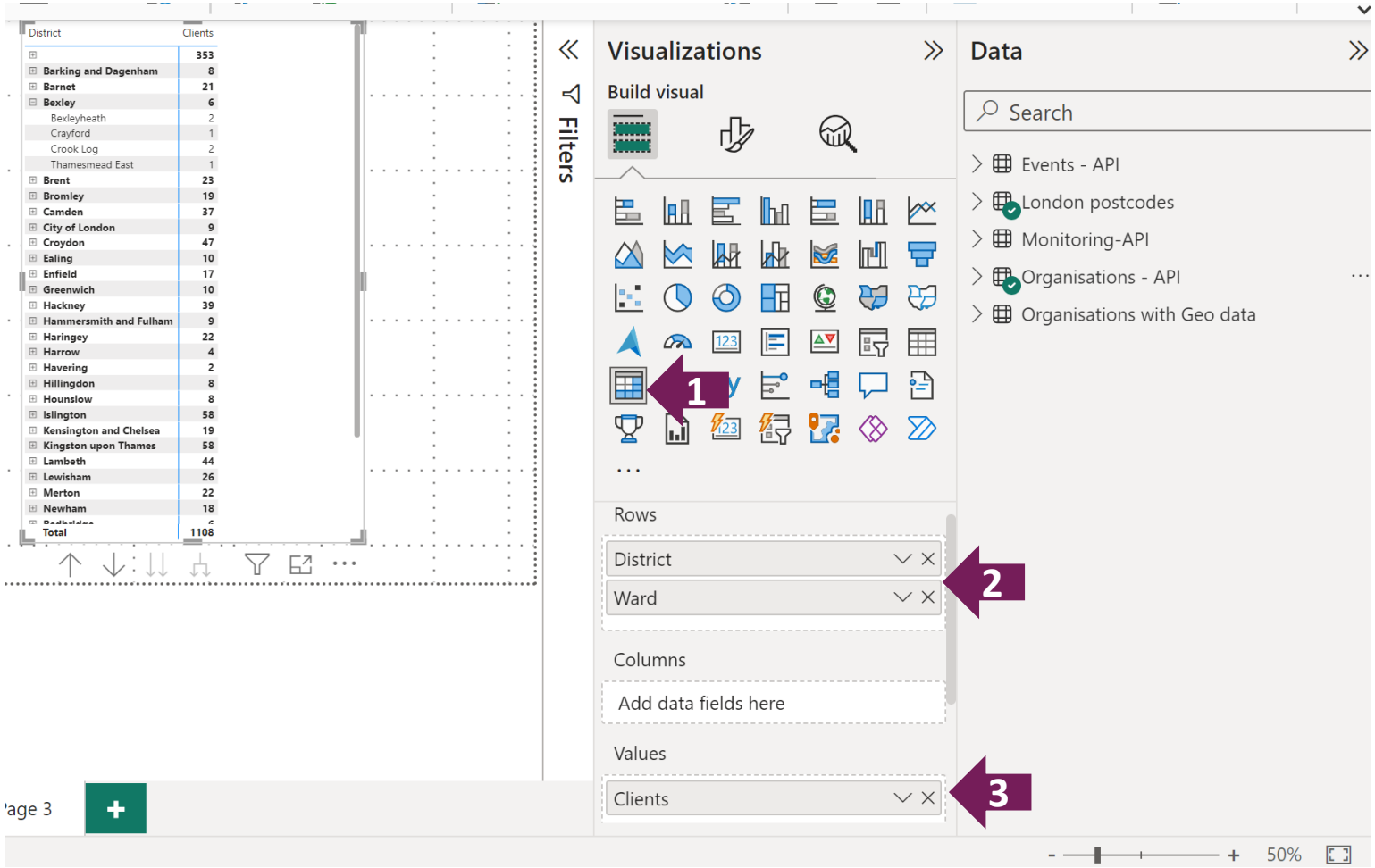


Creating visuals using ONS postcode data

Fields can now be selected from the tables linked to the postcode table.

In this example, we are using a Matrix visual to show how many clients are in each London borough & ward

1. Select the **Matrix** visual
2. Select the geographical information you want to group by to **rows** e.g. district or ward
3. Add the data you want to count to the **values** e.g. Organisation ID (show value as **Count**)



Possible next steps

- ✓Create a heat map for a geographical area (see the Datawise London guides for creating maps on our Power BI Resources page