

Modelling in Power BI desktop

Once you have connected to the data and completed you can start modelling. The main points in this section are

- Adding Measures
- Relationships
- Adding a calendar

Adding Measures

The calculations such as counting rows, totalling a column should be done in measures. This gives us control on the naming, formatting and the power of DAX.

[Create measures in Power BI - Microsoft](#)

The simplest measures include SUM, COUNTROWS and AVERAGE.

```
Total Revenue = SUM ( Sales[Revenue] )
```

Make sure measures have the right Home table and that each measure is formatted.

See the Advanced DAX section for more complex DAX

Relationships

If you have more than one table in your report there is possibly a relationship between them.

[Create and manage relationships in Power BI Desktop - Microsoft](#)

Power BI works best if the model of the report is a star schema, ie a fact table with a layer of dimension tables. A report can have multiple fact tables but the layer of dimension tables should only be one deep.

- [Star Schema - Microsoft](#)
- [Star Schemas - Guy in a Cube](#)

Note

Multiple relationships between tables mean only one will be active. Pick the most commonly used relationship to be active. See the Advanced DAX

Many to many relationships are a bad idea and should be avoided. Find ways to make relationships 1 to many or many to 1.

Bi directional joins are a bad idea and can lead to ambiguity this is explained by Alberto from SQLBI - [Bidirectional relationships and ambiguity in DAX](#)

Adding a Calendar

If your organisation does not have a standard calendar in their data sources your reports will need to calculate a calendar. 99% of reports need a calendar and the auto created calendars are not the best solution and need disabling.

[Disable Auto-DateTime - SQLBI](#)

[Create Simple Calendar - SQLBI](#)

Month name column will sort alphabetically by default. The sorting can be changed by using Sort By

[Sort by Column - Radacad](#)