



INTRODUCTION TO Tableau

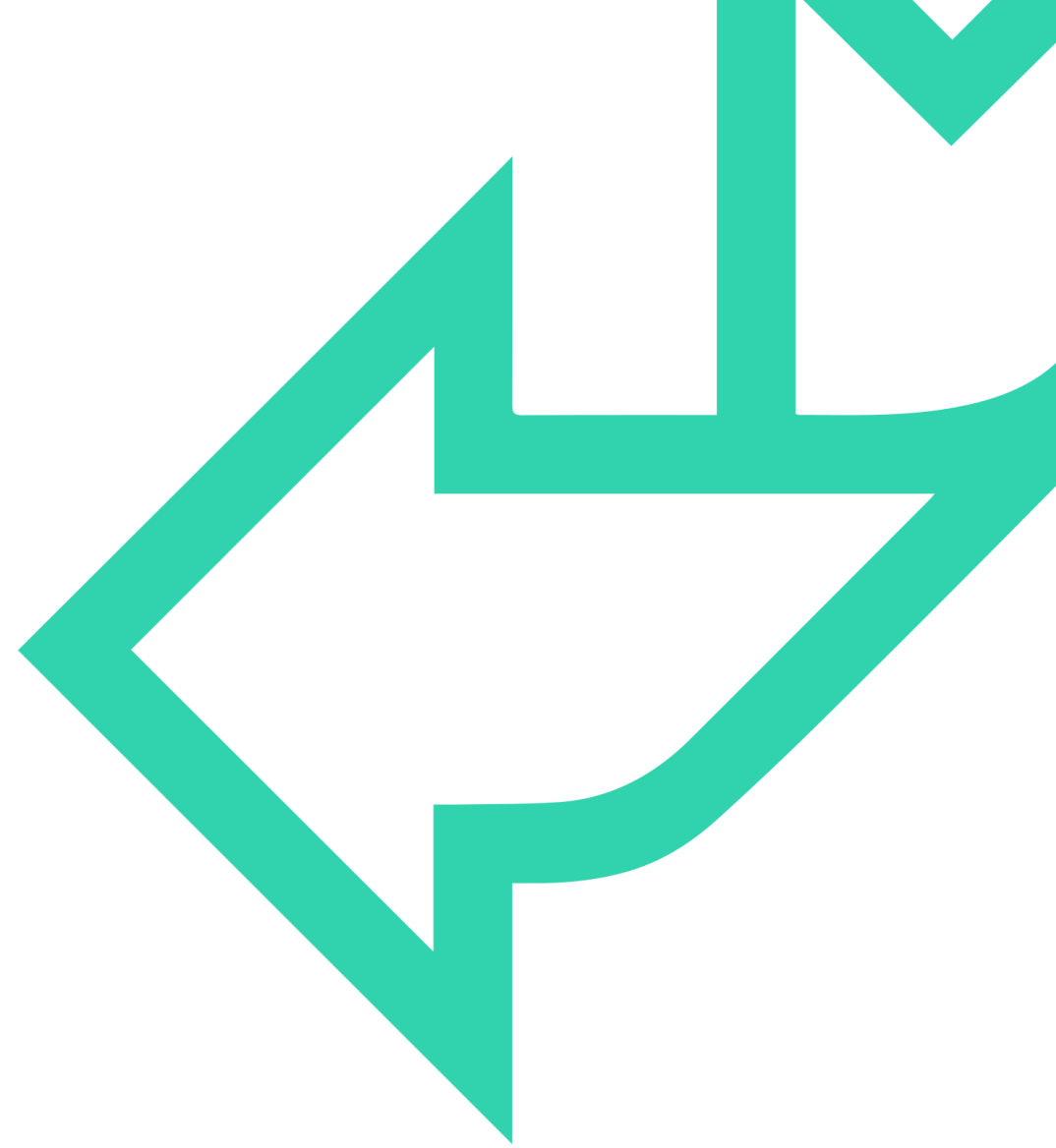




TABLEAU OVERVIEW

An ecosystem of products from Tableau Software focused on rich and interactive data visualisation

Provides capabilities to:

- connect to multiple data sources.
- reformat, restructure, and cleanse data.
- build data relationships.
- illustrate data insights through a variety of visualisations.
- share results with a user community.



TABLEAU ECOSYSTEM

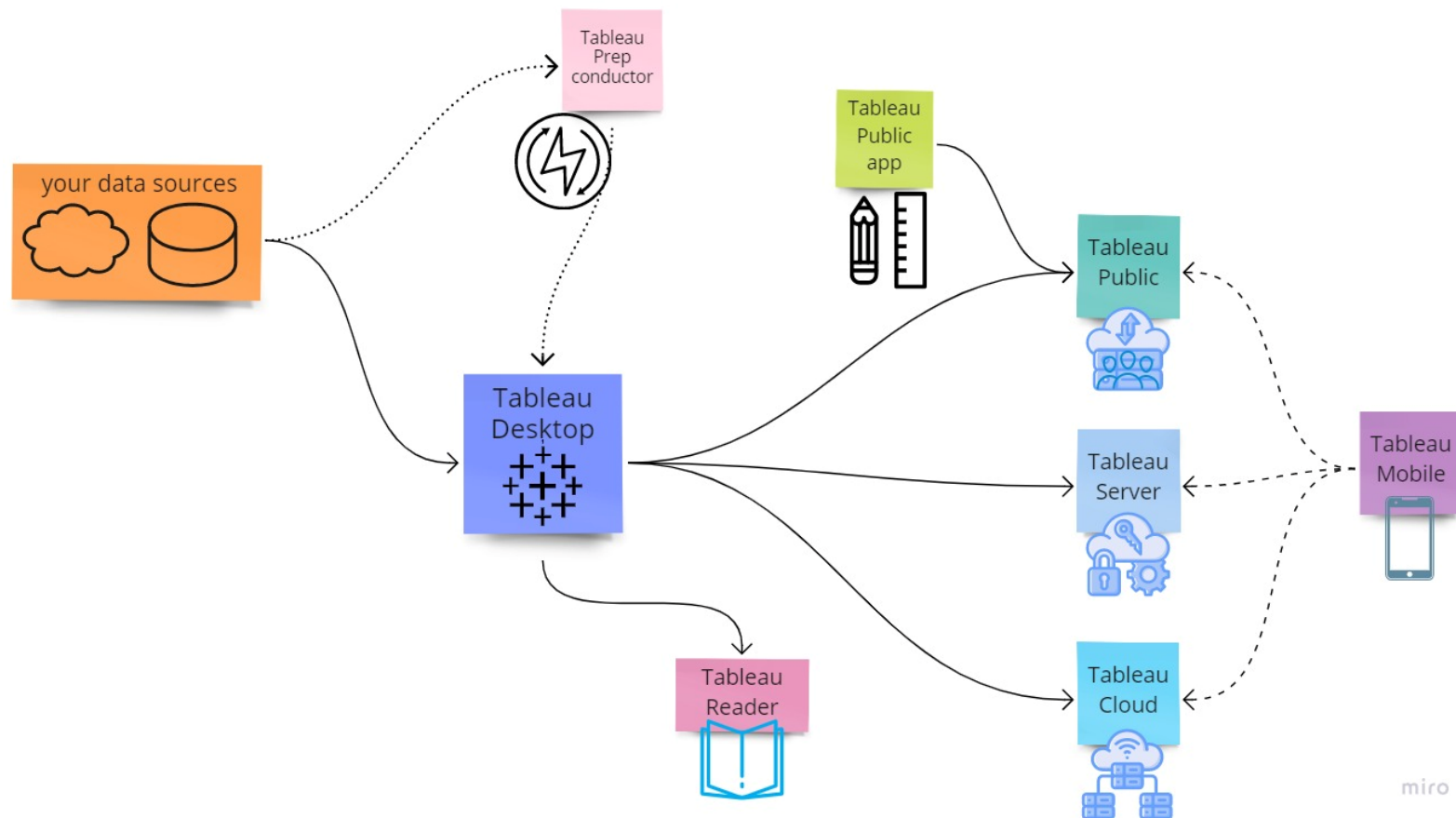




TABLEAU DESKTOP OVERVIEW

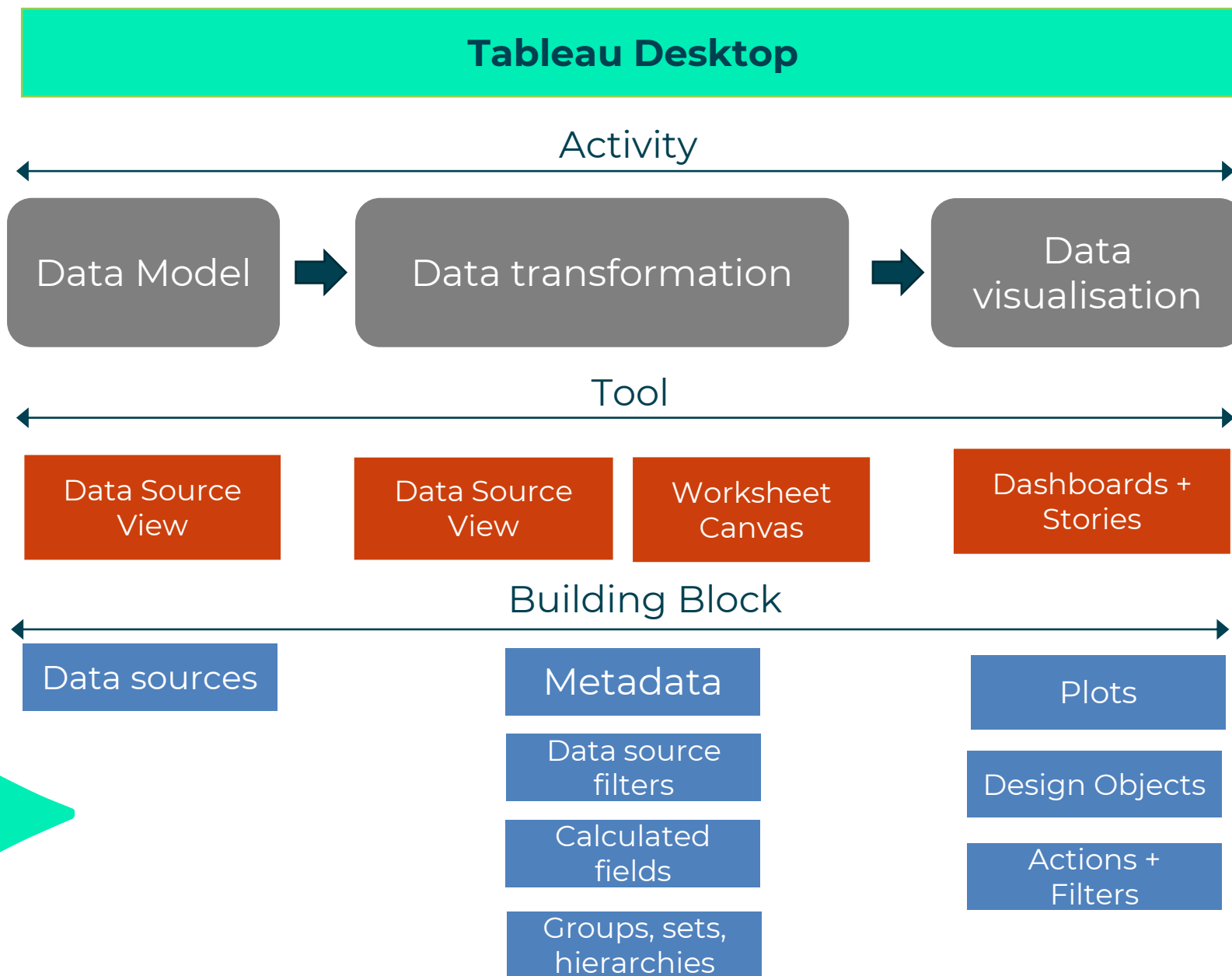




TABLEAU CREATOR HIERARCHY

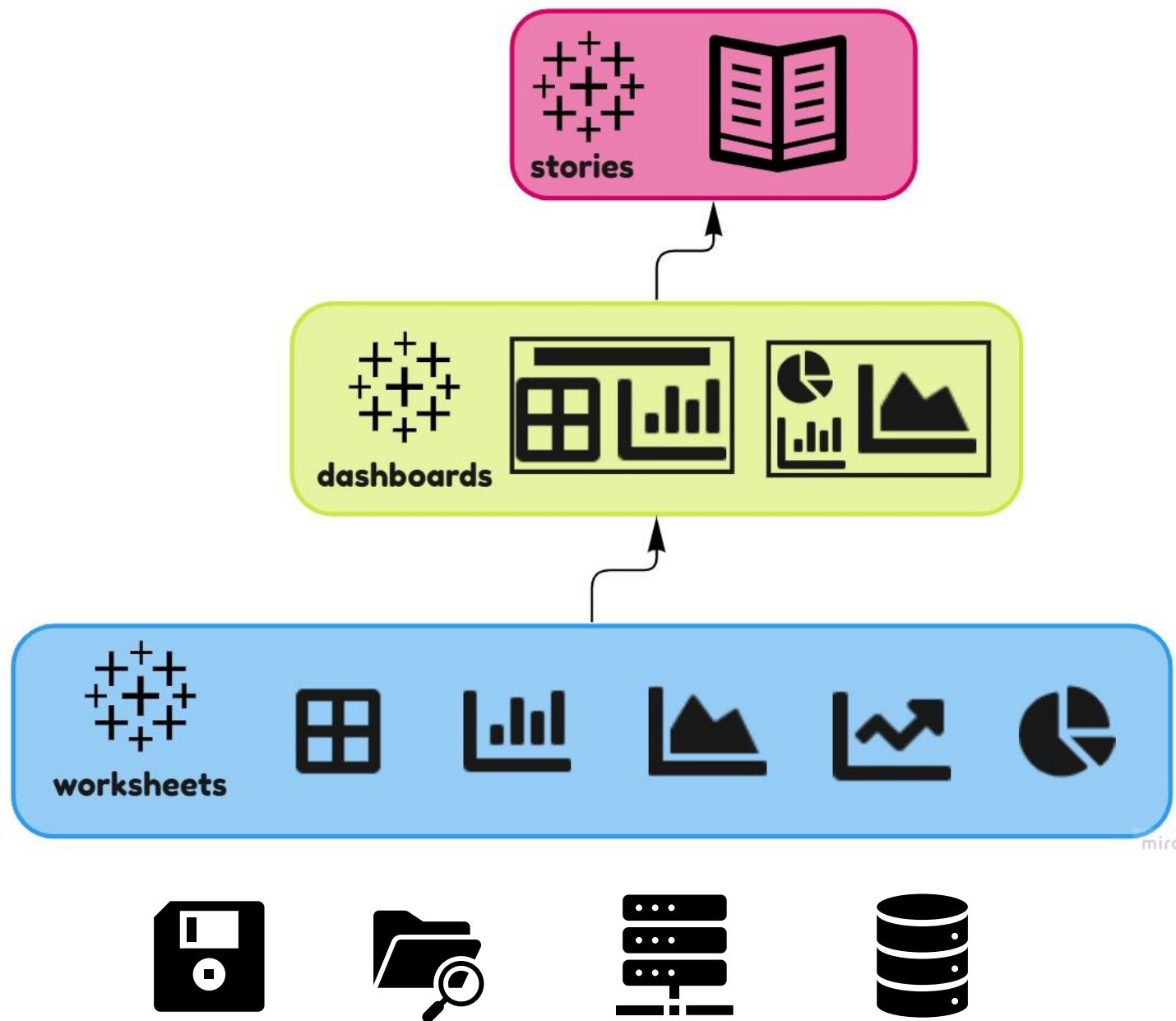
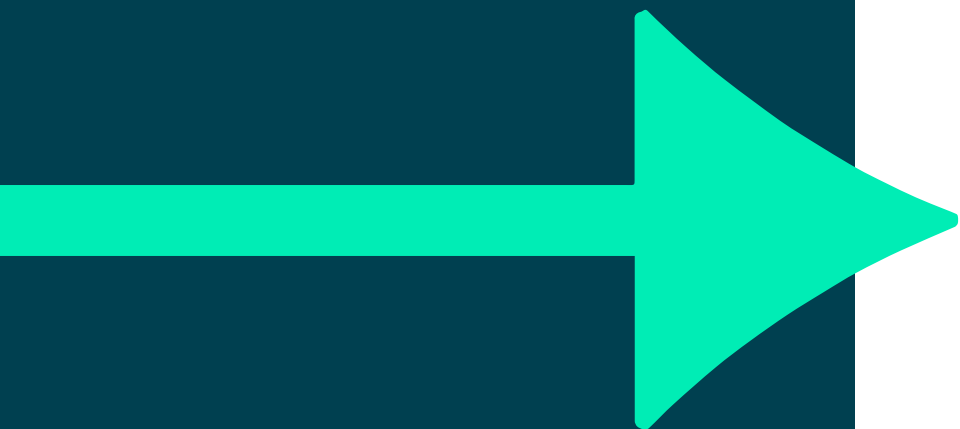




TABLEAU WORKED EXAMPLE

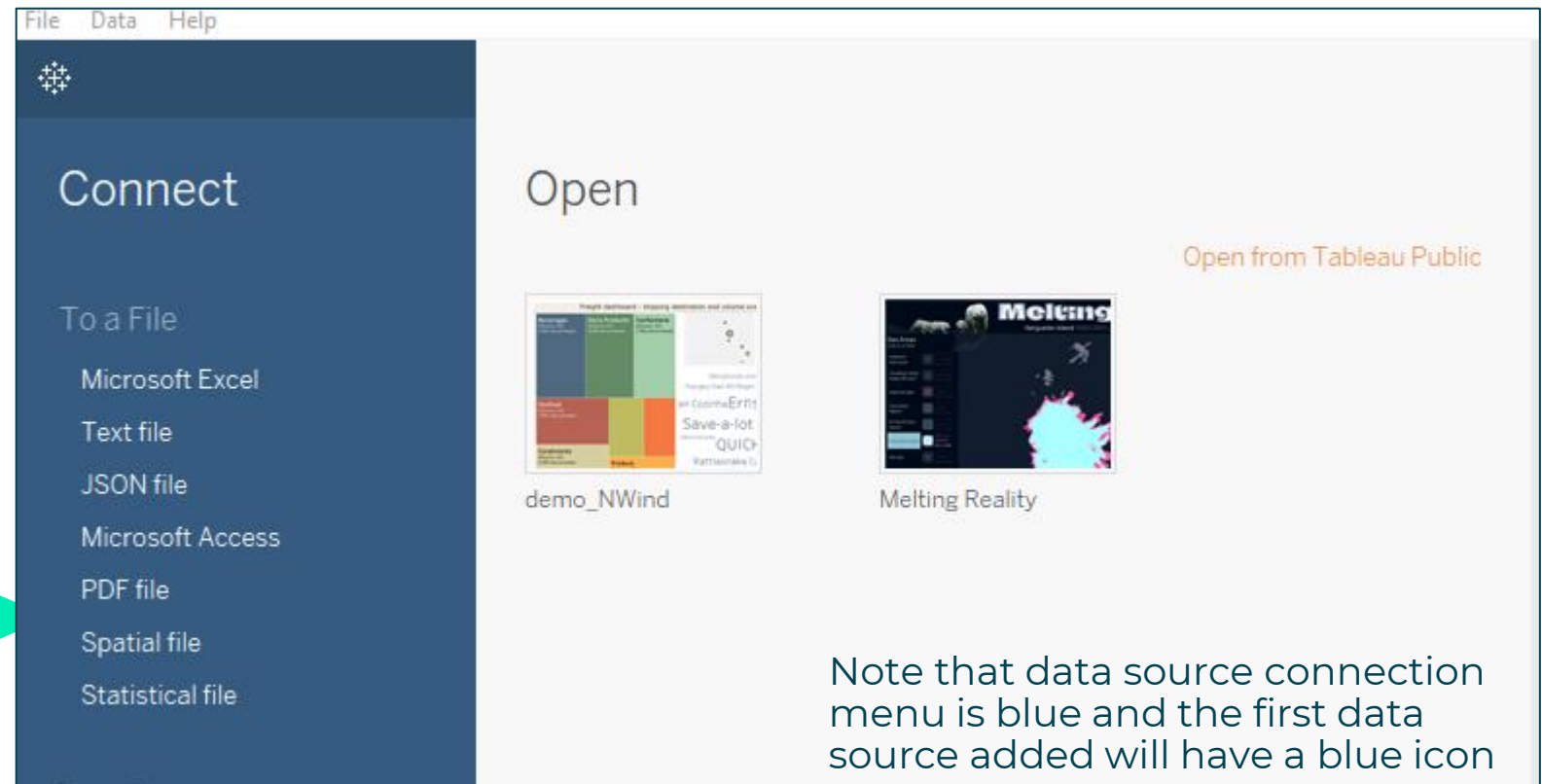
Let's try a group demo!





INITIAL NAVIGATION (1)

Opening Tableau takes you to this landing page. This is where data sources are connected to or existing tableau workbooks are opened.





INITIAL NAVIGATION (2)

Once we have connected to a data source the view will change and a preview of the data will be available or the tables in the data source will show

The screenshot shows the Tableau interface with the 'penguins' data source connected. The sidebar on the left has a 'Connections' section with 'penguins' (Text file) and a 'Files' section with 'penguins.csv'. The main area shows a preview of the 'penguins.csv' data with columns: #, Species, Island, and Bill Length Mm. A 'Go to Worksheet' prompt is visible at the bottom.

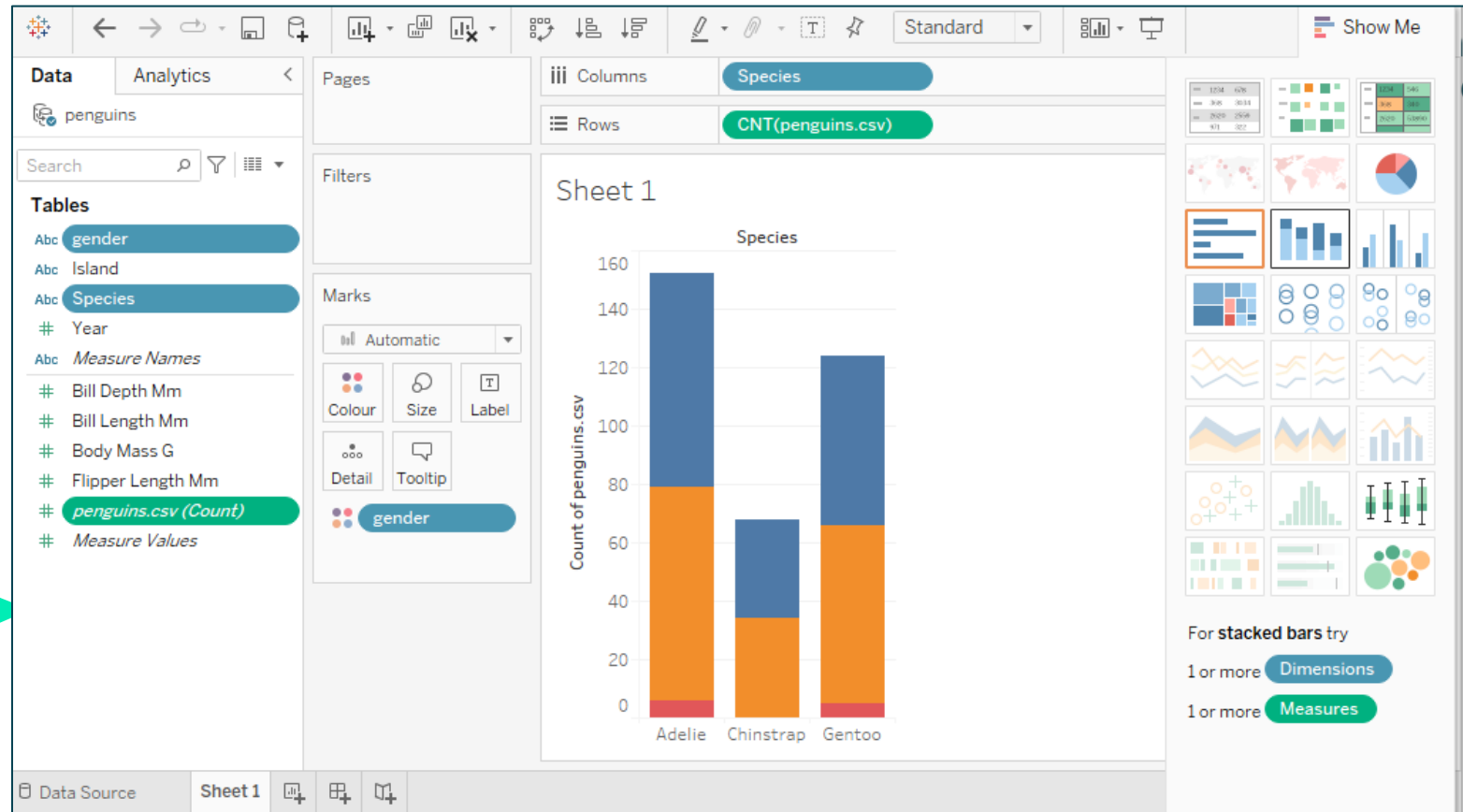
#	Species	Island	Bill Length Mm
1	Adelie	Torgersen	39.1000
2	Adelie	Torgersen	39.5000
3	Adelie	Torgersen	40.3000

Follow this prompt to go to the design canvas



WORKSHEET VIEW NAVIGATION

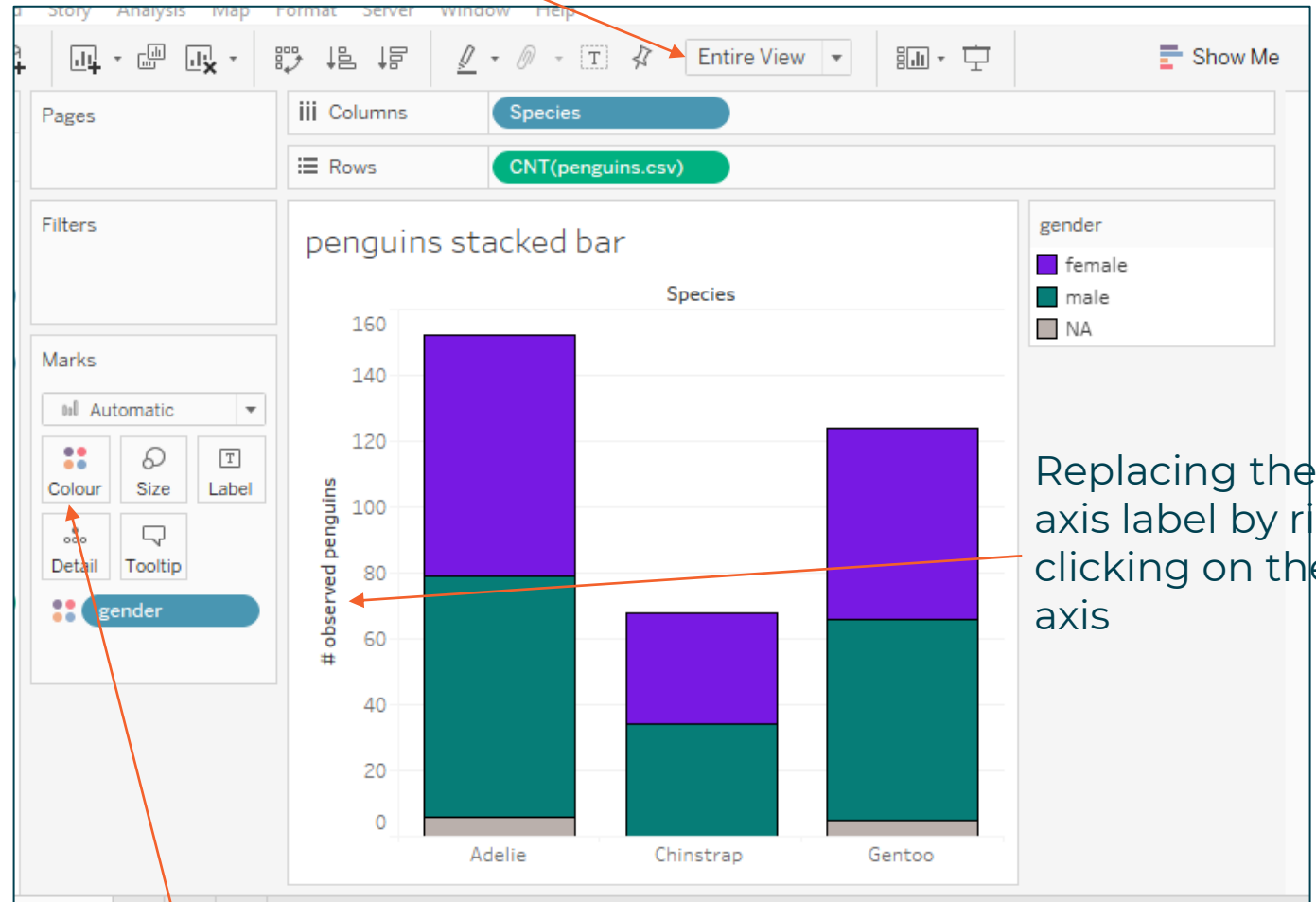
Selecting the desired data fields + the Show Me menu quickly creates the basic visualisation which can then be amended using the marks card, filters, rows and columns.





WORKSHEET VIEW EDITING

Setting the fit to Entire View makes better use of space



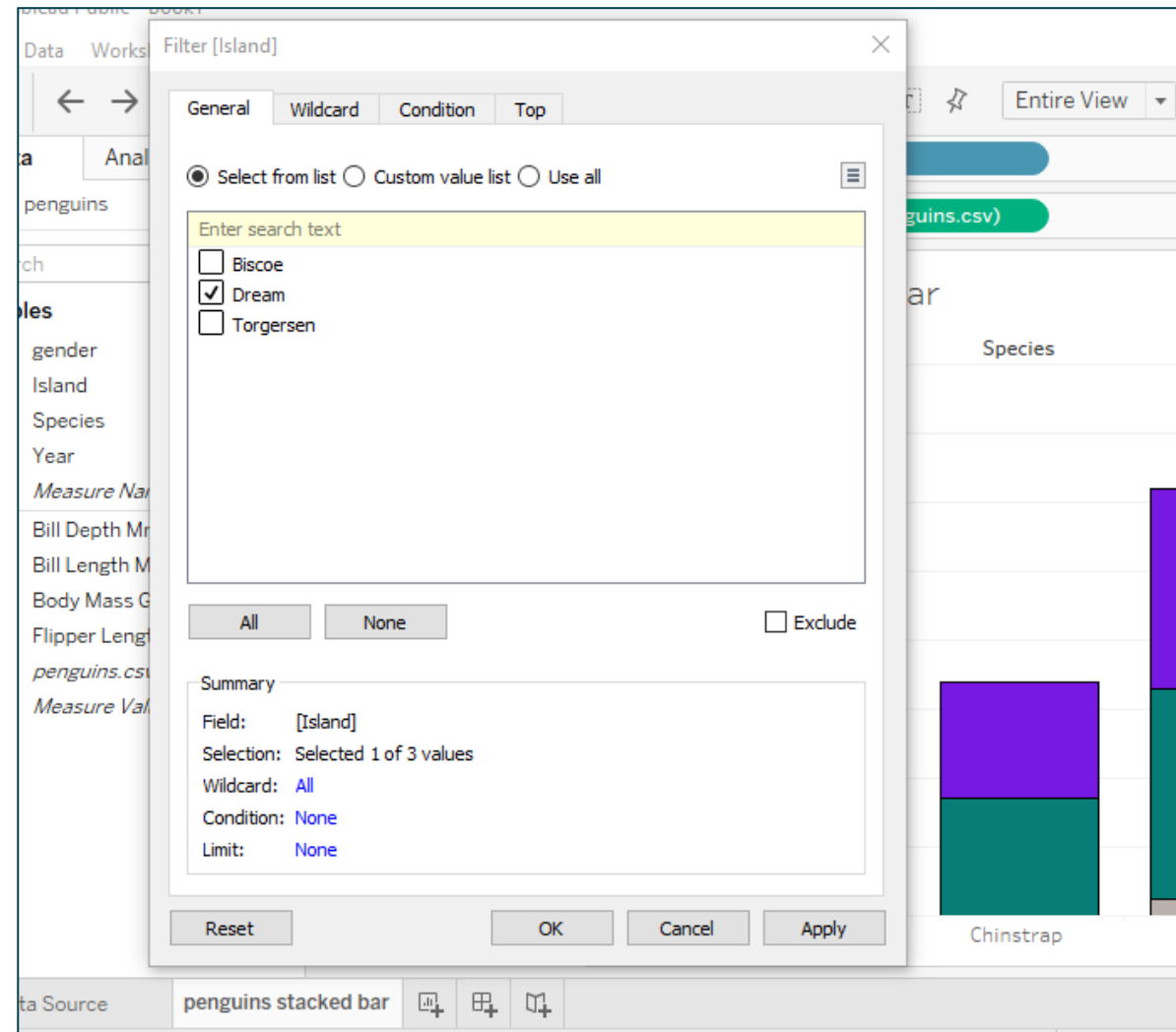
Replacing the axis label by right clicking on the axis

Using the marks card to edit the colours of the fields in the plot, plus adding a border for emphasis



WORKSHEET VIEW FILTERING

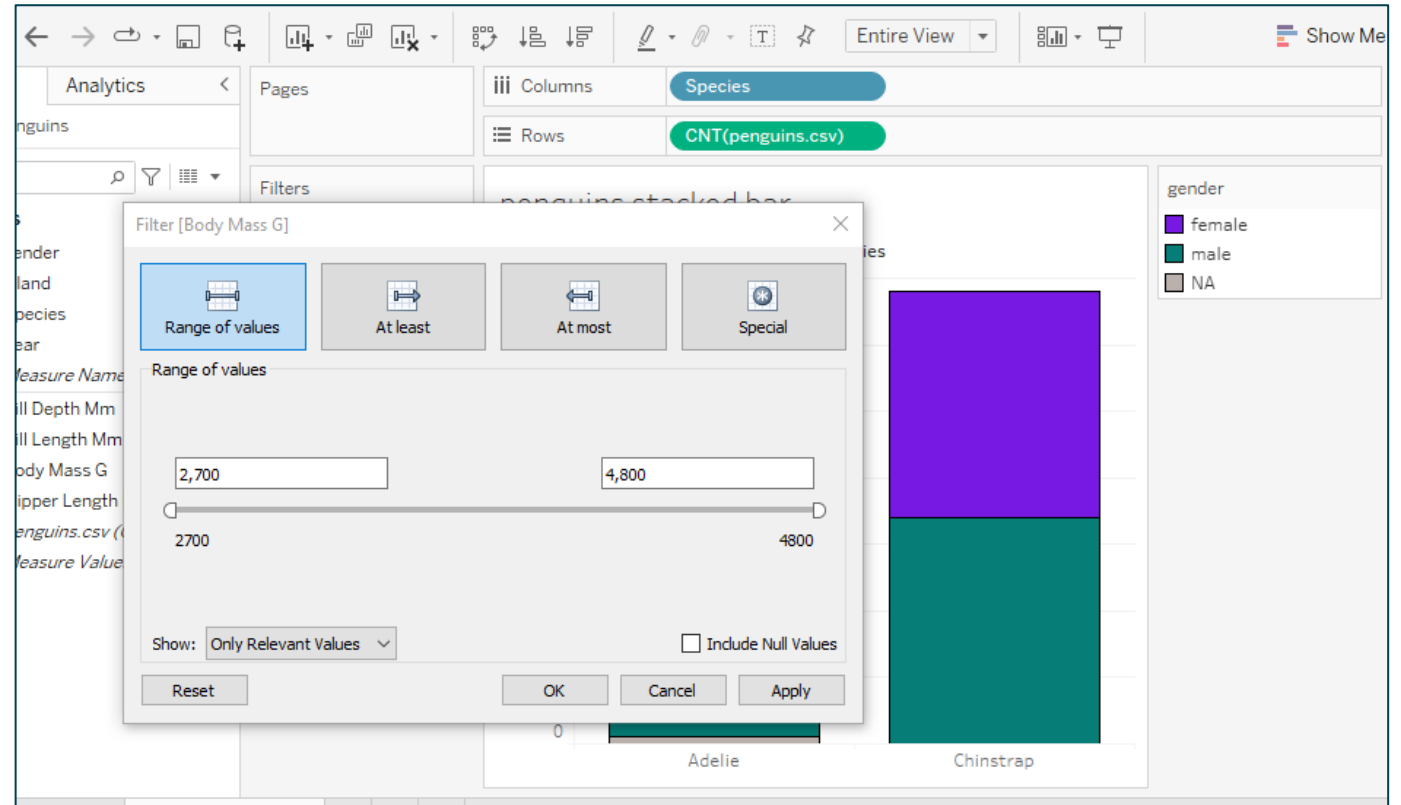
Filters can be applied to the visualisation by dragging fields from the Tables area to the Filter shelf.





WORKSHEET VIEW FILTERING

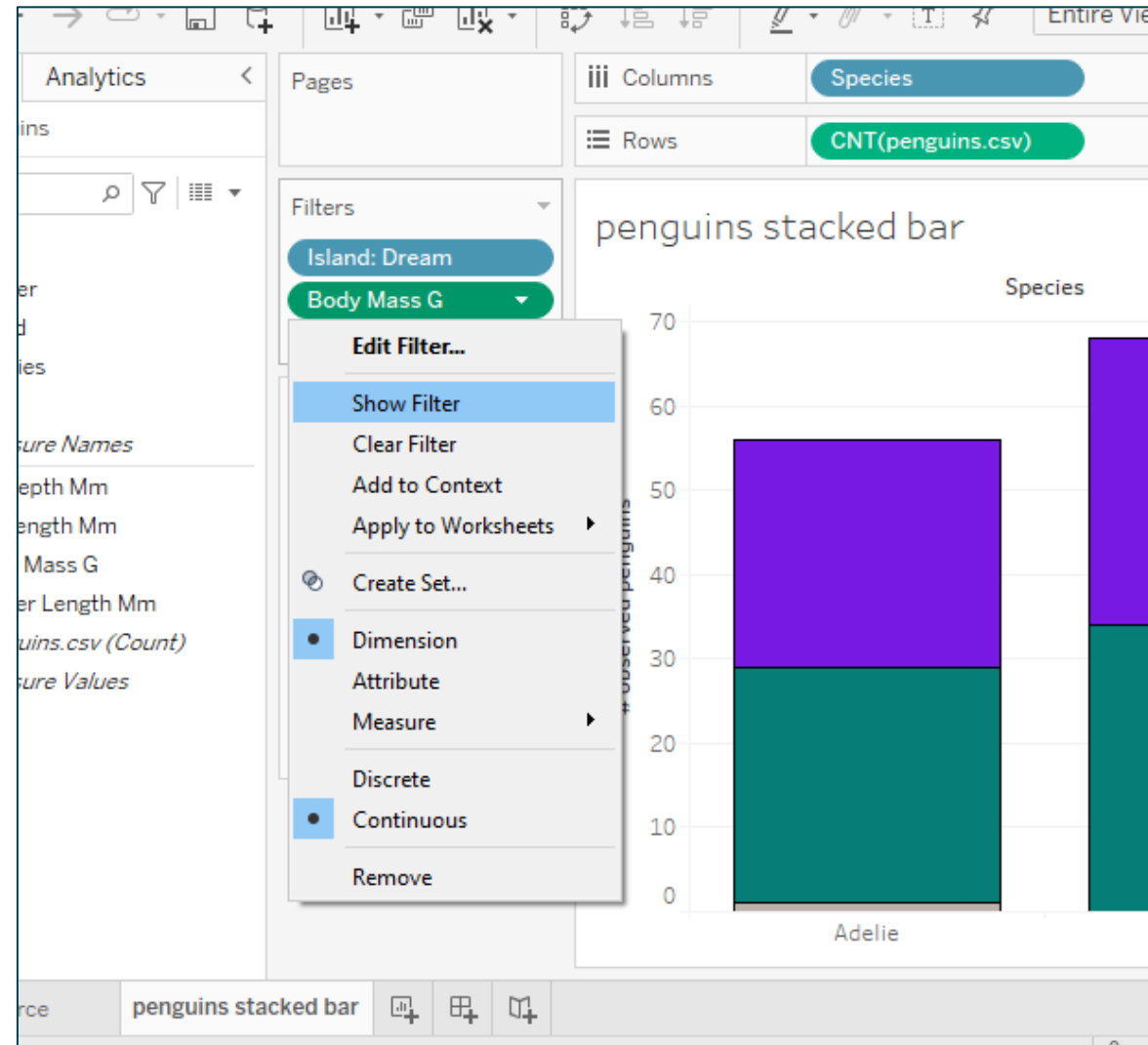
Filters look and behave different if they are from green continuous fields, to if they are from blue discrete fields








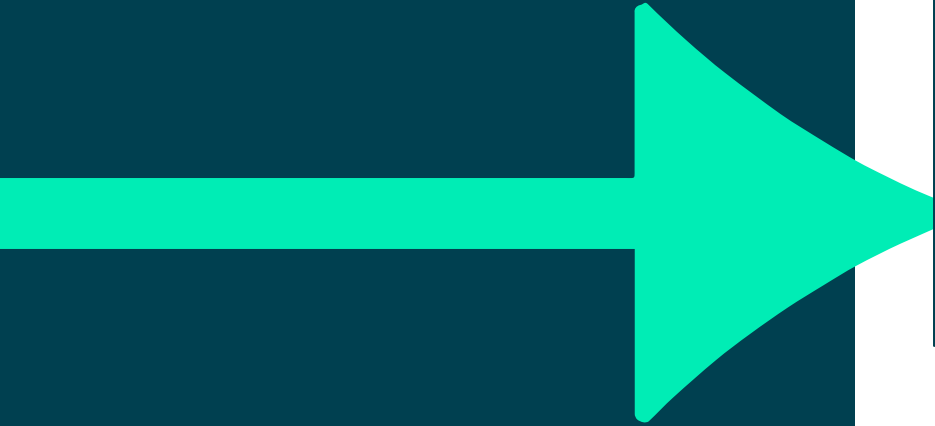
WORKSHEET VIEW FILTERING

Select Show Filter to make the plot interactive





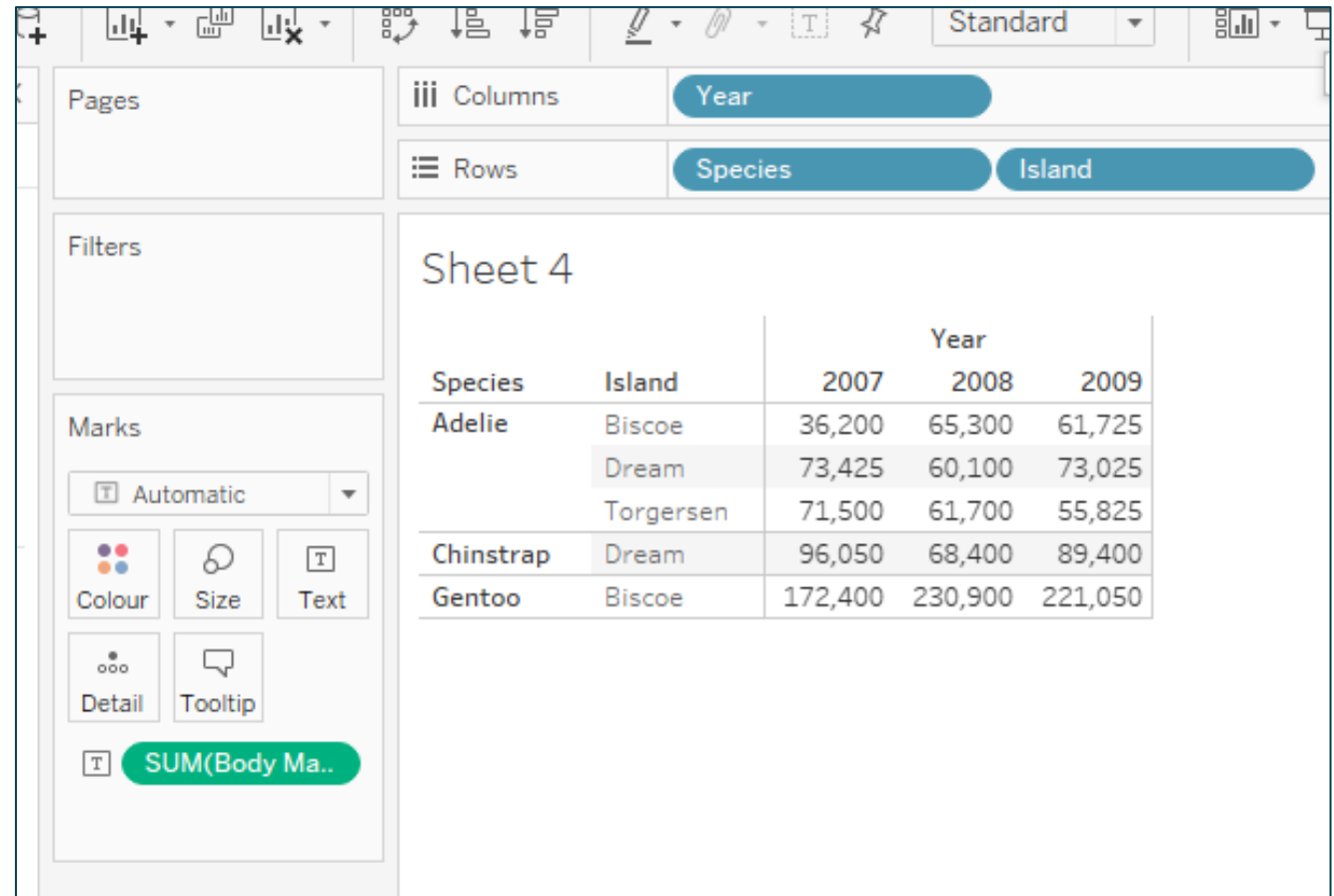
			





BUILD VIZ MANUALLY

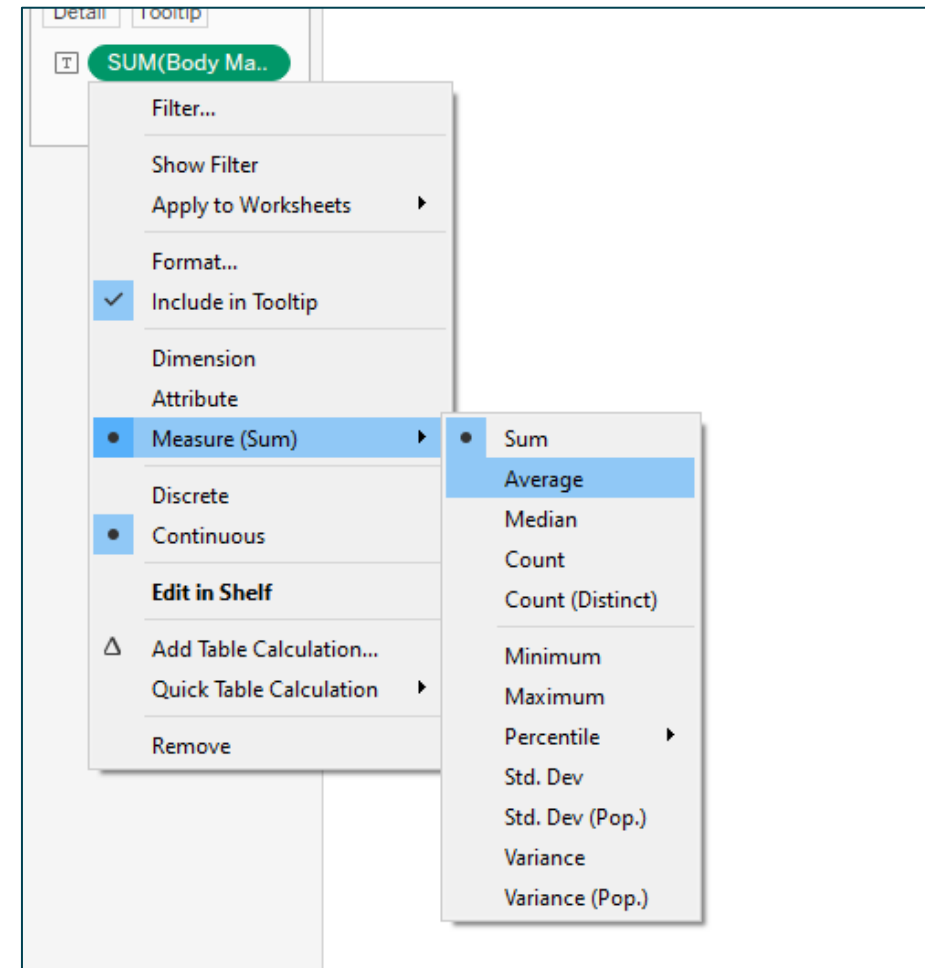
It is also easy to build a viz without the Show Me menu, using instead the rows, columns and marks card





CHANGE AGG. TYPE

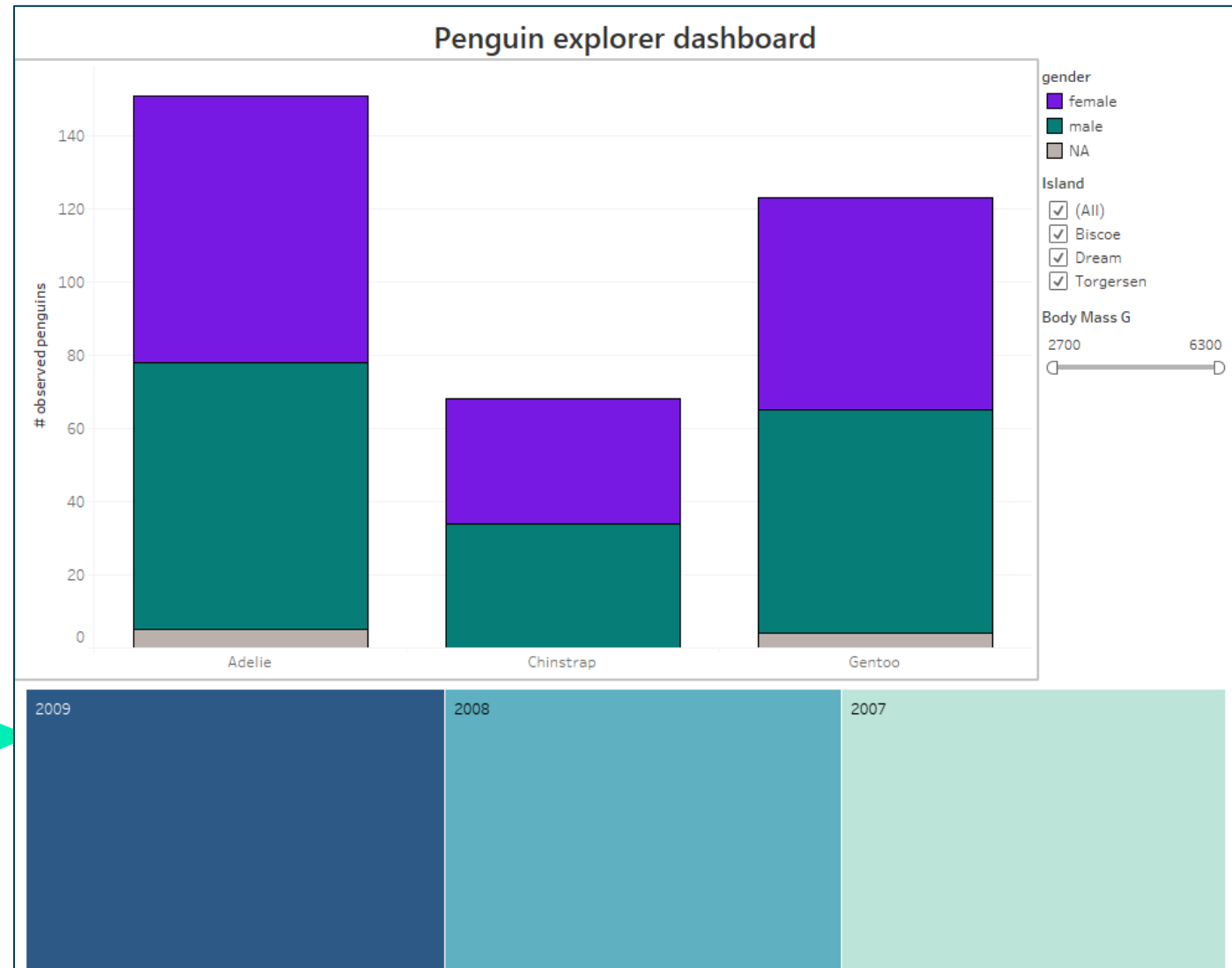
Once a green continuous field (measure) is in the viz, the aggregation type can be altered to what makes more sense in the view.





DASHBOARD ASSEMBLY

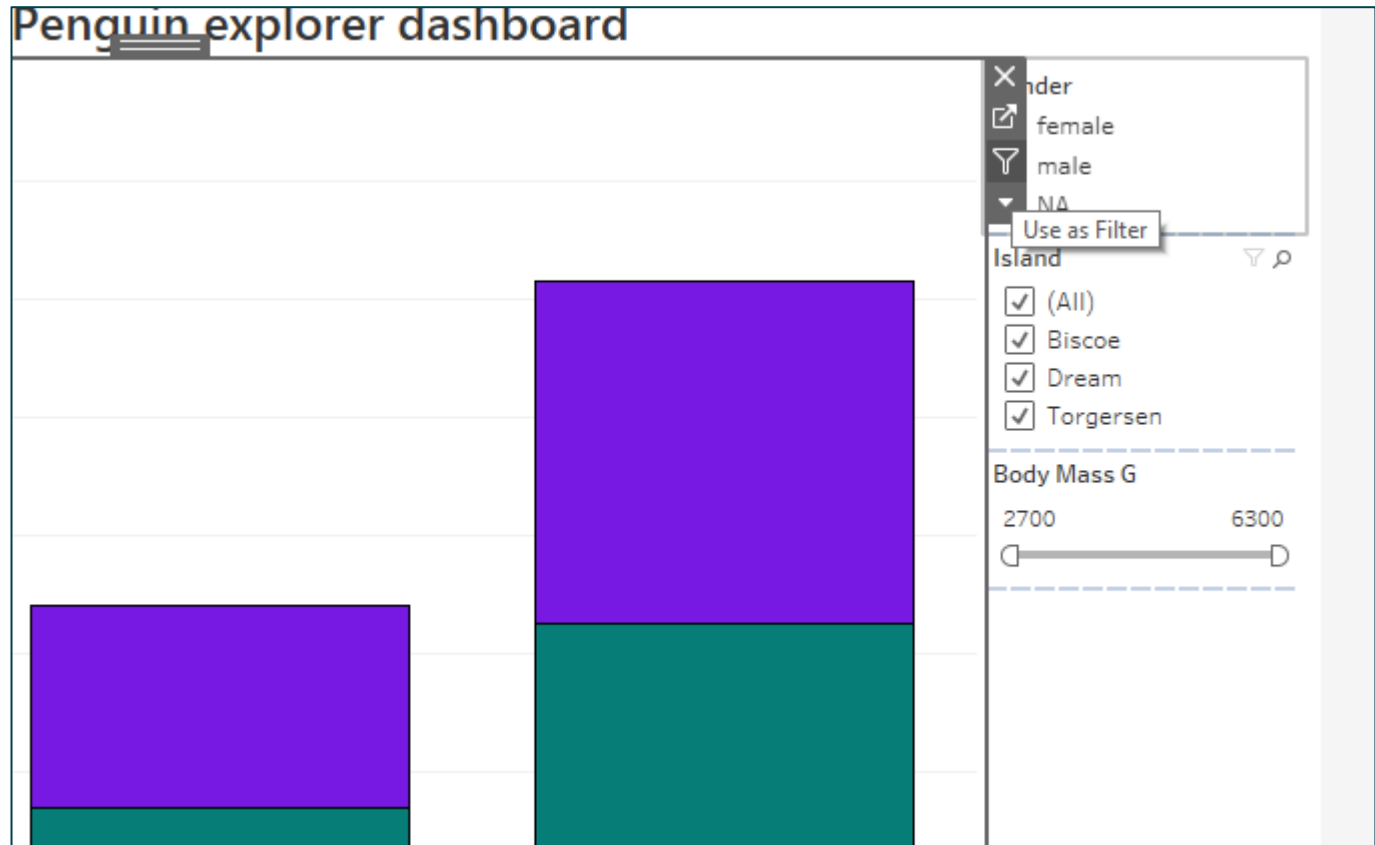
- Go to new Dashboard and give it a title
- Place chosen vizzes & filters in the dashboard





DASHBOARD FILTERING

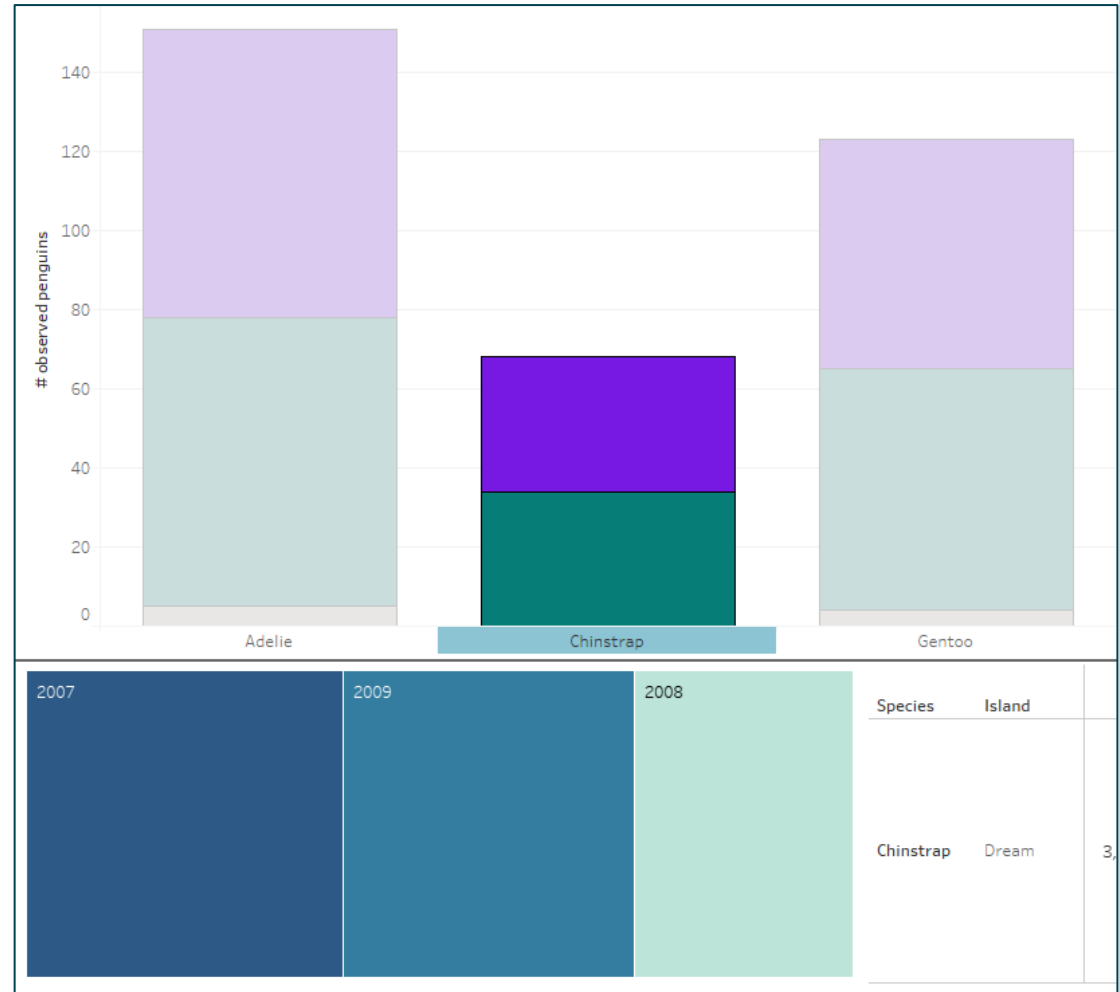
Add a filter from one visualisation to the remainder of the dashboard using the funnel symbol on the top right of each plot. Now the bar chart will drive the other views.





DASHBOARD FILTERING

Ensure that when testing dashboard actions there is a viz in the dashboard which will obviously change when the filter is applied





DATA SOURCE VIEW FILTERING

The Data Source View can be accessed at any time by selecting the first tab on the footer navigation

From this view data source filters can be added, field types can be changed and the data can be reshaped

The screenshot displays the 'Data Source View' interface. At the top right, it says 'Filters 1 | Edit'. A dialog box titled 'Edit Data Source Filters' is open, showing a table with two columns: 'Filter' and 'Details'. The first row contains 'Flipper Length Mm' and 'keeps non-Null values only'. Below the table are buttons for 'Add...', 'Edit...', 'Remove', 'OK', and 'Cancel'. In the background, a data table is visible with columns for 'Physical Table', 'Remote Fi...', and data rows. A context menu is open over the table, showing options like 'Number (decimal)', 'Number (whole)', 'Date & Time', 'Date', 'String', 'Spatial', 'Boolean', 'Default', and 'Geographic Role'.

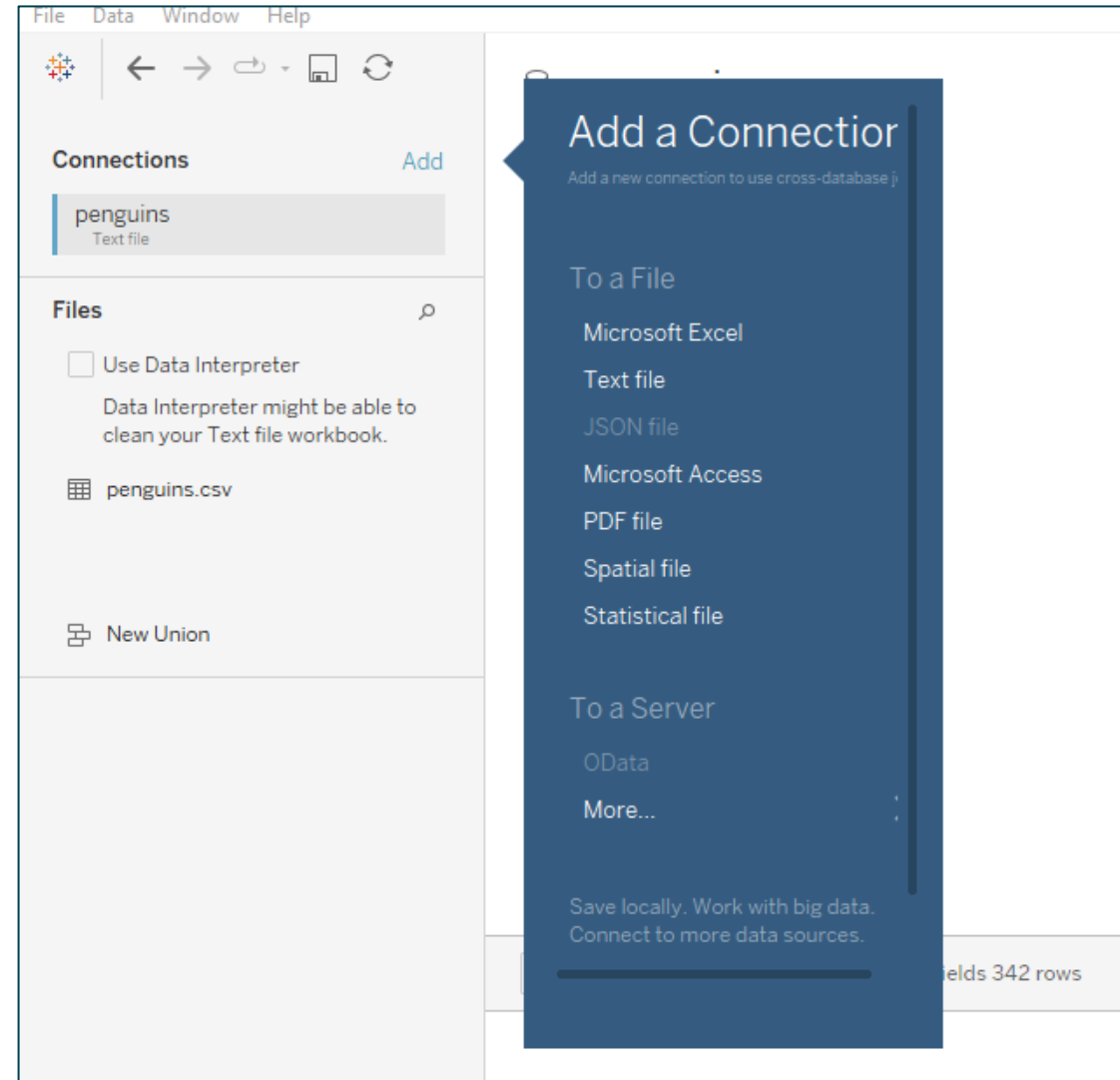
Physical Table	Remote Fi...
penguins.csv	species
penguins.csv	island
penguins.csv	bill_length_...
penguins.csv	bill_depth_...
penguins.csv	flipper_len...
penguins.csv	body_mass...

Adel...	Adel...	Adel...	Adel...
Adelie	Torgersen	39.1000	
Adelie	Torgersen	39.5000	
Adelie	Torgersen	40.3000	
Adelie	Torgersen	36.7000	
Adelie	Torgersen	39.3000	
Adelie	Torgersen	38.9000	
Adelie	Torgersen	39.2000	
Adelie	Torgersen	34.1000	
Adelie	Torgersen	42.0000	



ADD NEW DATA SOURCE

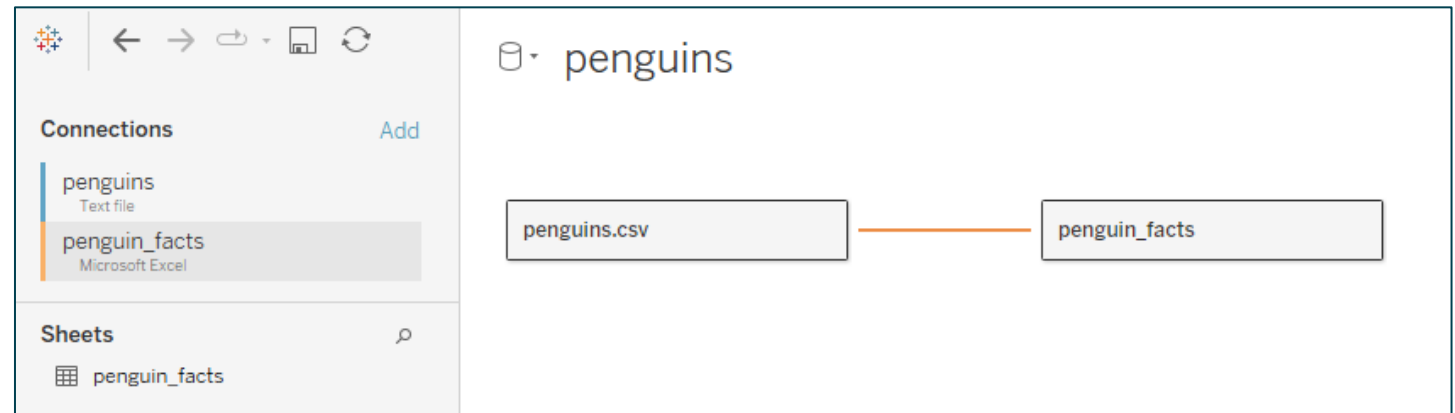
When in the Data Source View it is possible to add more data sources to which the primary source can connect.





RELATE DATA SOURCES

The relationship fields will be detected automatically if there is a matching name and data type in the secondary source. If not you can use the relationships editor below to configure the fields in common.



The screenshot shows the 'penguins... - penguin_f...' relationship editor. It displays a table with columns for 'penguins.csv', 'Operator', and 'penguin_facts'. The 'Species' field from 'penguins.csv' is mapped to the 'Species (Penguin!Facts)' field from 'penguin_facts' using an equals sign operator. There is a link to 'Learn more' about relationships and a button to 'Add more fields'.

penguins.csv	Operator	penguin_facts
Species	=	Species (Penguin!Facts)

[How do relationships differ from joins? Learn more](#)

[Add more fields](#)



WAYS OF WORKING

We will practise a number of exercises this week in Tableau.

→ Create one tableau workbook .twbx file for all the exercises, name the tabs clearly per activity - and remember to keep hitting Save!