QATABTECH

Tableau for Technical Users

CONTENTS

Module 1 – Product and Overview

Activity 1.1 – Set up for Publishing

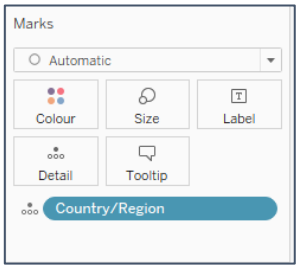
The first Activity requires you to:

- Find specific version of Tableau software on the Tableau website
- Navigate around your 'My Tableau Repository'
- Open Tableau Desktop, registering for the trial if necessary
- Connect Tableau Desktop to Tableau Public (create an account on Tableau Public as needed)
- Create a basic visualisation as you saw the trainer do
- Publish the viz to Tableau Public

1.1 Detailed instructions

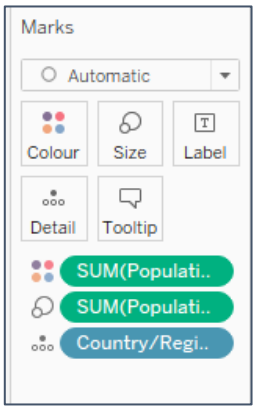
1. Browse to the Tableau webpage for all product releases **tableau.com/support/releases**
2. Focus on Tableau Desktop and identify the first 2022 release, before clicking on the link to review the release notes.
3. Note the version software can be downloaded from this site for either Windows or Mac OS.
4. Take note: How many 2022 Tableau releases have there been?

   Navigate to your Tableau repository (normally in C:/Documents) and locate the tableau data source file **Datasources / World Indicators .tds**
5. Open that file with a double click to launch Tableau desktop.
6. Register your Tableau desktop trial using your contact information.
7. Inside Tableau Desktop, from the Server menu, log into your Tableau Public profile (or register on the Tableau Public site first).



8. In the first worksheet, drag **Country/Region** to Detail on Marks Card to create the map.
9. Rename the worksheet tab as **Population Map.**
10. Change the Background Map from the **Map** drop-down menu to **Satellite.**

11. Vary size of the mark by dragging **Population Total** onto Size in Marks Card.
12. Vary colour of the mark by dragging **Population Urban** onto Colour on the Marks Card.
13. Change the colour palette of the marks by selecting Edit Colours inside Colour on Marks Card, choosing **Orange-Blue Diverging.**
14. Switch the mark Halo to **None** inside Colour on the Marks Card.
15. Adjust the **Size** of the mark as needed in the Marks Card. Marks Card will now be populated as shown.
16. From the Server menu, Save the viz to Tableau Public under the name '**TABTECH_Activities'** and keep the workbook open.



Optional challenge:

17. Source and add a new custom shape to the Shapes folder in My Tableau Repository – creating a subfolder 'my shapes' if you do not have one.
18. Change the mark type of your map to **Shape** on the Marks Card.
19. In the shape menu, reload the shapes available in Tableau and use the new shape in your map, replacing the circles currently shown.

Activity 1.2 – Introduce Interactivity

The second Activity follows on from the first:

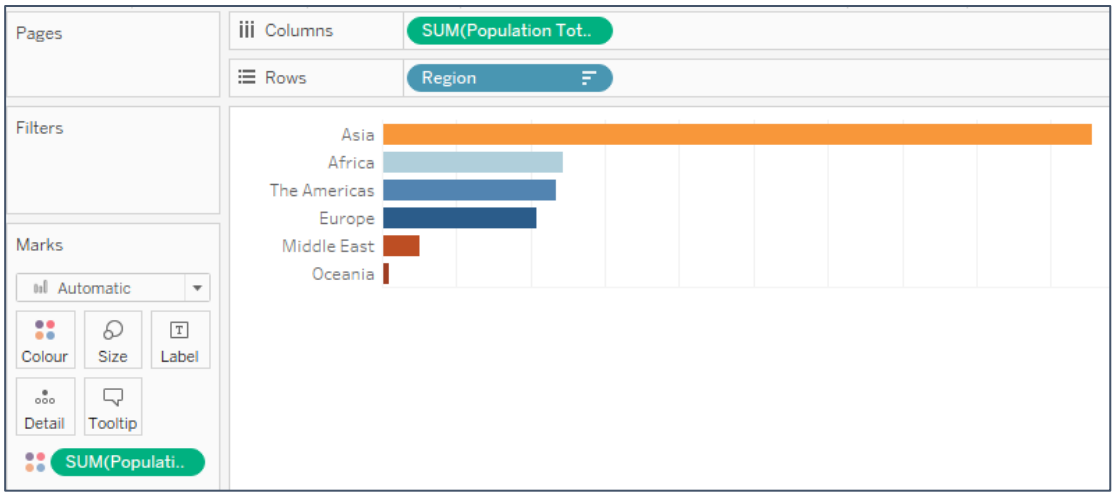
- Create a second worksheet.
- This will be used as the visual interaction point for the map.
- Combine the two sheets in a dashboard and publish.
- Enable the worksheet filter and republish.

1.2 Detailed instructions

1. Create a new worksheet in your workbook **QATABTECH_Activities** using the Worksheet menu or footer navigation.

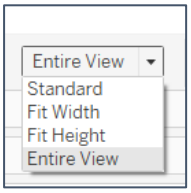
2. This is a good time to save the workbook as a twb or twbx, using the File menu – until now the workbook is only published on Tableau public.
3. Name the new worksheet **Selector sheet** for easy identification – by either double clicking on the tab or right clicking on the tab to locate **Rename.**
4. Drag **Region** to the Rows, **Population Total** to the Columns.
5. Add **Population Urban** to Colour on the Marks Card.
6. Sort the view Descending so the Region with the greatest population is on the top (hint: look for toolbar icon).

7. Change the colour palette of the marks by selecting Edit Colours inside Colour on Marks Card, choosing **Orange-Blue Diverging.**
8. Untick **Show Header** in the SUM(Population Total) green pill on Columns.

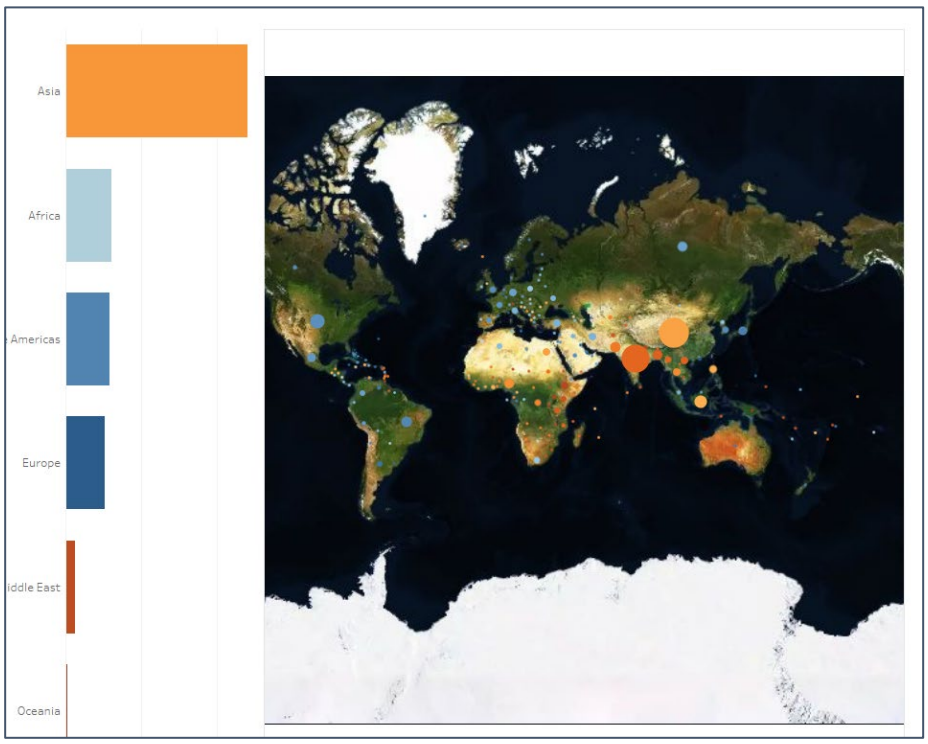


9. Create a new dashboard from the Dashboard menu or footer navigation.

10. Drag and drop to place the two worksheets side by side.
11. Name the dashboard **Population Explorer.**
12. From the menu on the top right of the Selector Sheet in the dashboard choose **Use as filter** or select the funnel logo to fill it in white.
13. Test the filter interactivity using **Presentation**  **Mode.**
14. Set both dashboard sheets to fit **Entire View** and fill their respective cells.



15. **Hide worksheet titles** by right clicking on the title text with your mouse and show dashboard title, typing it in as 'My Population Explorer View'.
16. Using the Server menu, save your workbook a second time to Tableau Public (overwrite the previous workbook).
17. Test the viz in the browser to confirm interactivity works as expected.
18. Keep the QATABTECH_Activities workbook open.



Optional challenge

19. Use the format menu to remove vertical grid lines from the Selector Sheet (Format Lines > Columns) and Axis Rulers (Format Lines > Rows).
20. Use the same menu (Format Borders > Row Divider) to add a thick grey line between the regions at the most granular level (move Level Right).

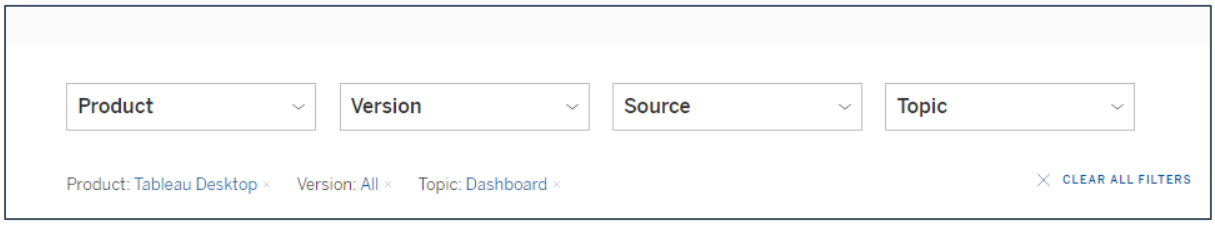
Activity 1.3 – Using the Help

The last Activity in this module continues in the same workbook:

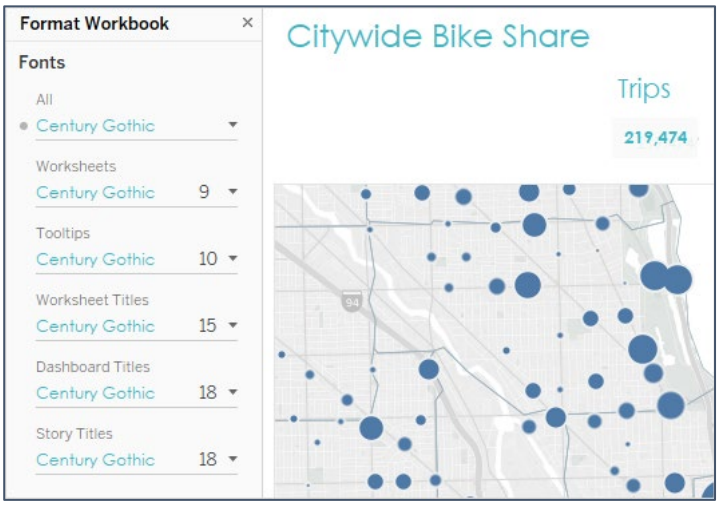
- Navigate around the Help resources.
- Filter by Product and Topic.
- Find 'Rebrand a Dashboard':
    - Change workbook theme font and size
    - Optional – add an image to your dashboard
- Republish to tableau public.

1.3 Detailed instructions

1. Go to the help from Tableau or your browser.
2. Navigate around the Search using key words or product.
3. Filter the search results by Product: Desktop and Topic: Dashboard



4. Discover the topic 'rebrand a dashboard'.
5. Review the article and follow the steps shown in the article to rebrand your QATABTECH_Activities workbook; select the font type, colour, and size of your choice across the workbook, setting the dashboard title as 24pt.

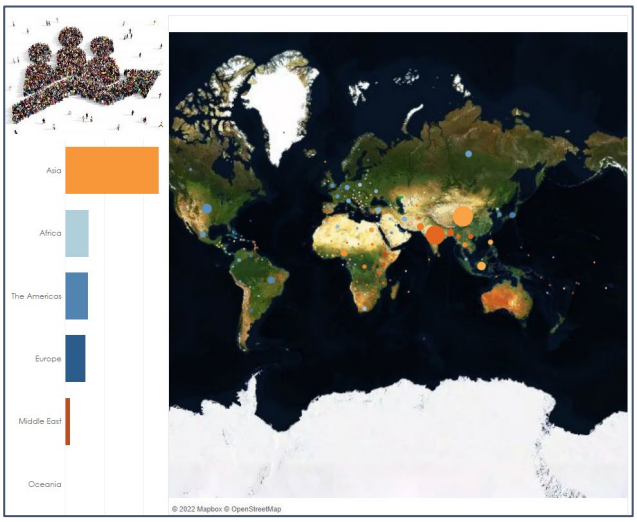


6. At the foot of this article, you will see instructions for adding an image or

logo – note the article includes a video to watch which shows the steps. This is an optional extra step which includes:

- Add an image object to the appropriate place on the dashboard.
- Browse to the image population.jpg shown below, which you will find in the module activity materials.
- Set the image to fit and centre on the dashboard.
- Resize the image cell as needed.

7. Once your rebranding steps on the dashboard are complete, save the workbook again to Tableau Public, replacing the existing workbook. Check the workbook appearance in full screen mode.



Module 2 – Data Sources: Connections + Purpose

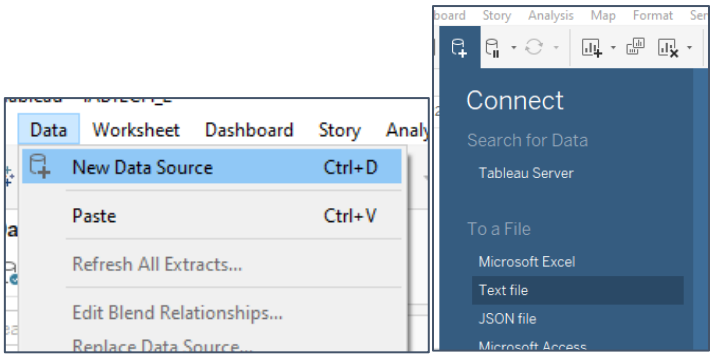
Activity 2.1 – Connect to a problematic text file

The first activity of this section can be completed in the same workbook as before, but the data source will be separate.

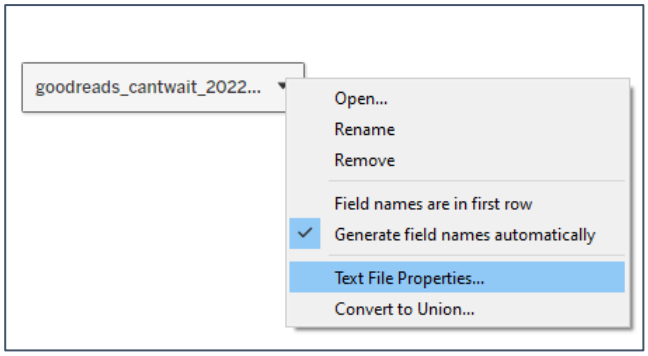
- Create a new data source connection.
- Confirm the correct delimiter is in use.
- Assess if any steps for data reshaping are needed.
- Review the detected data types.
- Keep only the highly rated books using a DS filter.

2.1 Detailed instructions

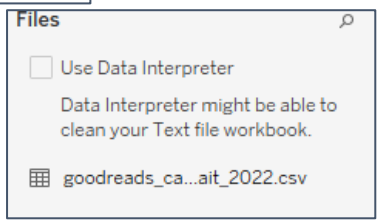
1. From your tableau activities workbook, use the Data drop down menu or the icon on the toolbar to add a new data source, **Text file** connection type and connect to the file **goodreads_cantwait_2022.csv**



2. Check the delimiter of the file in Tableau – this should be a comma by default but is led by the locale of the computer. You can check this by looking at the data preview panel- if the comma has not been used on this file, the columns will merge. If you need to make a change to this setting, choose **Text file properties...** from the drop down on the file name and select commas as the option from the field separator drop down.



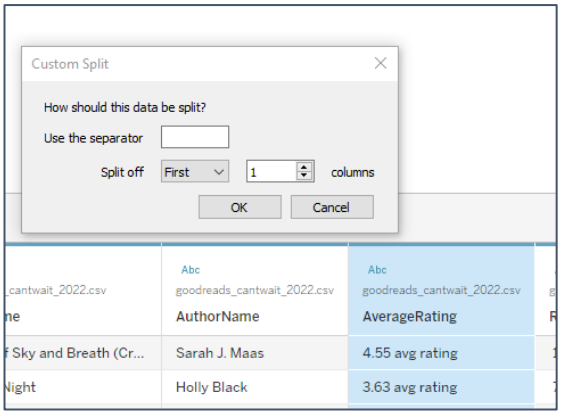
3. Note that the columns are named F1, F2, F3, etc.: Select the **Data Interpreter** to manage the empty rows in the file. After running the data interpreter, you can click on the blue hyper link to launch an excel workbook to review the results.



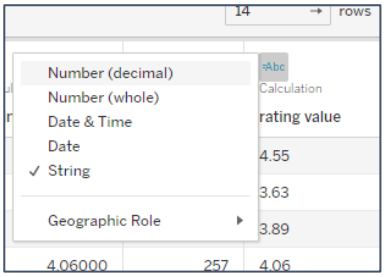
4. To set the headers correctly, select the drop down on the file settings and ensure the **Field names are in first row** option is selected.

5. Review the columns – checking the data types match the contents of the columns observed in the preview. Numbers should be recognised as decimals or round numbers, and categories / text as strings. Note that all the columns have been captured as text because of the labels such as 'avg rating', 'people voted' – but you will now take further steps to extract useful values from those columns.

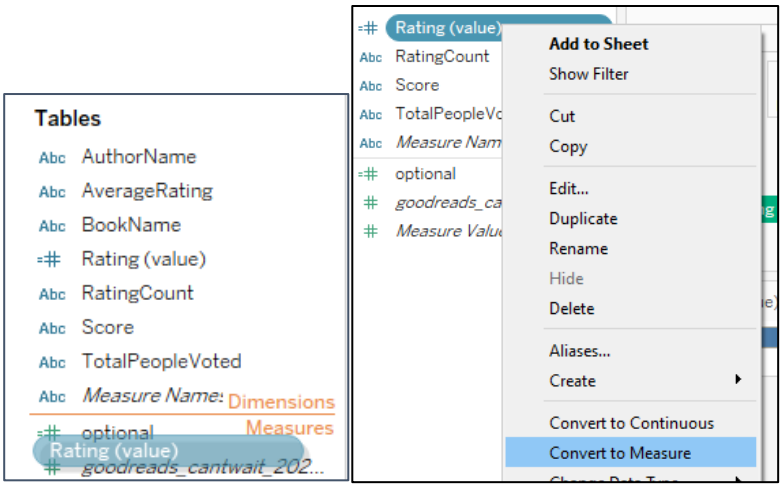
6. To extract the average rating value from the **AverageRating** column, use the Custom Split option you saw in the lesson, separating around a whitespace, taking the first column that results from the split (actually, a standard split will also work fine on this column, because the text label is consistent).



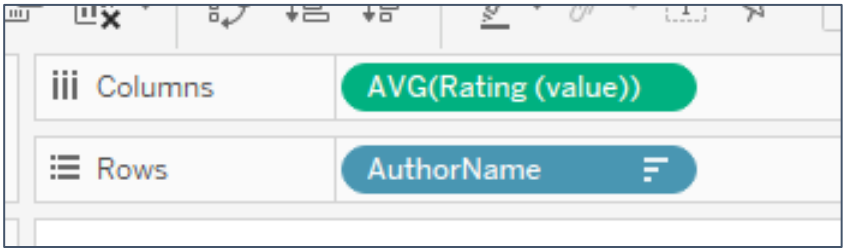
7. Name the new column 'Rating (value)' and change the data type of the column to a decimal number using the data type icon.



8. Go into a new worksheet and drag to move the **Rating(value)** field from Dimensions to the **Measures** section which will also change the default behaviour of the value field from discrete to continuous.

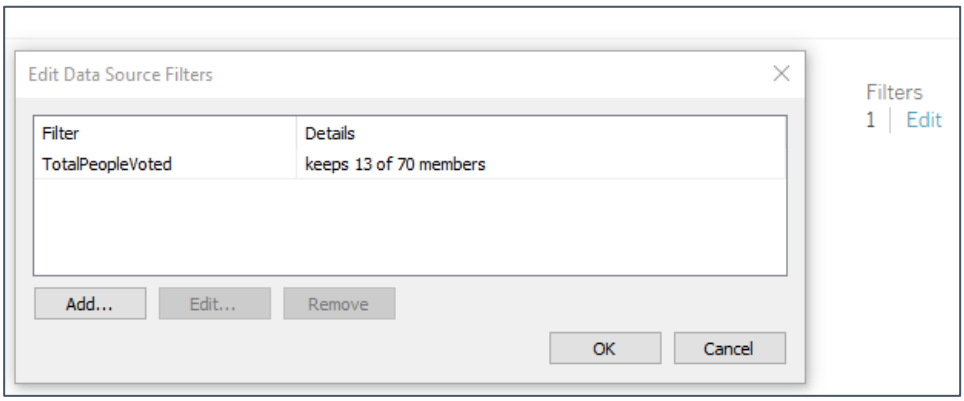


9. Create a viz, bar chart, which shows the **AuthorName** on Rows and the **Rating(value)** on Columns. Note that some of the rows are null rating values and there is a null indicator in the bottom right of the view. Change the aggregation of the measure to **AVG** using the menu (hint: right click).

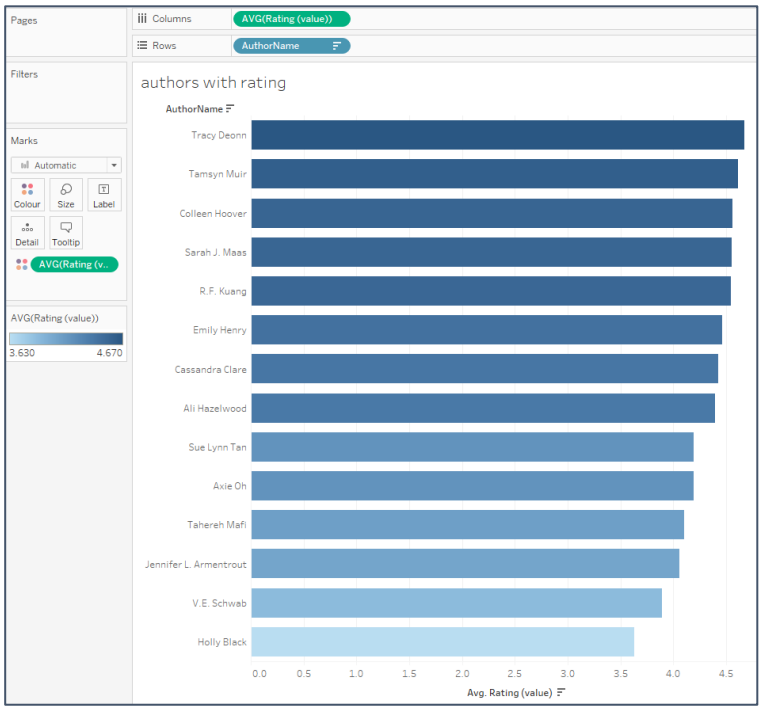


10. Drag a copy of **Rating(value)** to Colour on the Marks card (hint: use CTRL).
11. Return to the Data Source view and add a data source Filter which limits

the workbook to those titles which have been voted for by at least 100 people, using the tick boxes and the **TotalPeopleVoted** column.



12. Return to the worksheet and notice the list of authors is now shorter and there are no longer any null values or the null indicator showing.



13. Instead of publishing to Tableau Public, save the workbook locally.

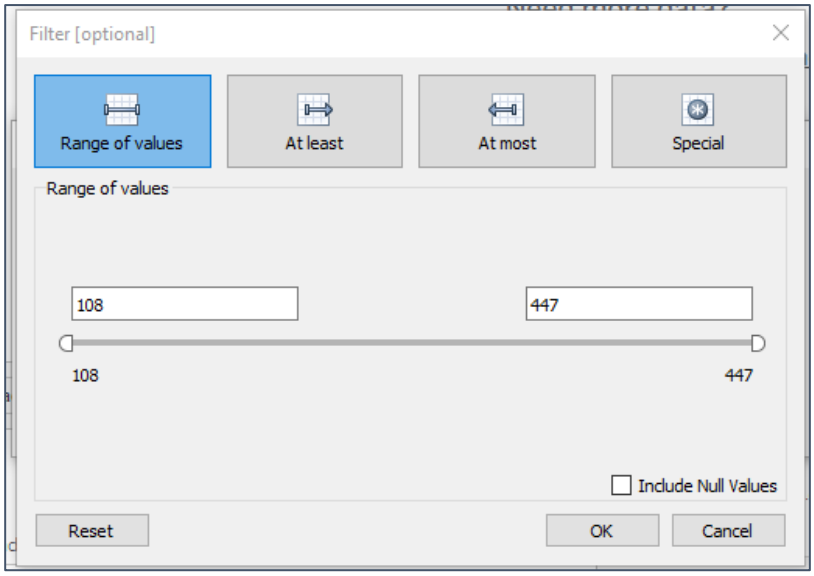
14. Keep the workbook open for the next activity.

Optional challenge

15. Note that the data source filter was fiddly to apply because the field **TotalPeopleVoted** is currently a string.

16. Using a similar method as for Ratings, create a split or calculation on the **TotalPeopleVoted** which is named as **Votes**.

17. Replace the existing data source filter with a new filter based on the Votes field using the range behaviour.


Filter [optional]
Range of values
At least
At most
Special
Range of values
108
447
108
447
Include Null Values
Reset
OK
Cancel

Activity 2.2– Explore data sources

The second activity of this section is not necessarily tableau based, though you can use tableau in a new workbook to review the data.

- Assess each data source contents, size, file type.
- Preview the data where possible with excel, text reader or tableau.
- Consider if each data source could be useful to the case study as discussed in the lesson (you will find a copy of the case study definition and business questions at the end of your learner handout).
- What about data preparation / reshaping?

2.2 Detailed instructions

1. Open the folder called **Books_data_sources**
2. Start with the sub folder **Bookshop_data** – work through the folder, briefly opening the files with your chosen tool – any text reader, excel or tableau – to see what each file contains. Afterwards, preview the remaining sources provided.
3. Make some notes about the data sources:
    - You are looking for usable/ relevant data to the case study – are there any data sources you can easily eliminate because they are not relevant to the case study business questions?
    - Assess what the data reshaping/ preparation steps might be for each source - are there columns which will need further engineering, as you did in activity 2.1, because the values are labelled with text? Can you match across data sources with an ID or book/ author name? Is this identifier consistent?

Your notes:

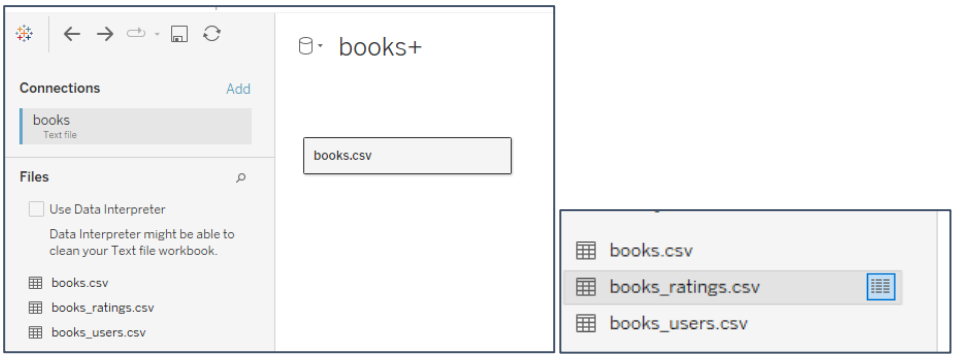
Module 3 – Combining Data Sources

Activity 3.1 – Cardinality and Design

- Open three data sources in tableau.
- Identify potential linking fields.
- Assess the cardinality in each direction.
- Draw and label a simplified schema.

3.1 Detailed instructions

1. You can continue working on the same workbook but start by creating a new, separate data source. The csv data sources found in the folder **'Books_ratings'** should be brought into the data source canvas in Tableau– start with the **books.csv** table which is a text file connection type.
    - books.csv
    - books_ratings.csv
    - books_users.csv
2. Note the other csv files in that folder are also visible in the data source connection screen. Using the view data and describe features as discussed in class to identify the correct fields which should be used to relate the data sources.



3. Make notes about the cardinality of these data sources – would you expect to find 1:1, 1:M or M:M relationships between these entities in real life? (Would you expect a reader to leave more than one review for a single book? Would you expect a reader to review more than one book?)
4. On paper, in PowerPoint, or using any online drawing tool (e.g., Miro, Lucid, Jamboard) create a simplified sketch of the 3 sources and how they connect.
5. Add annotations for cardinality to your sketch as discussed in class.
6. Save and keep the workbook open.

Activity 3.2 – joining or relating?

- Review 3 new data sources
- identify matching criteria
- Join and relate with join calculation

3.2 Detailed instructions

1. Identify the following data sources in the books data source folder:

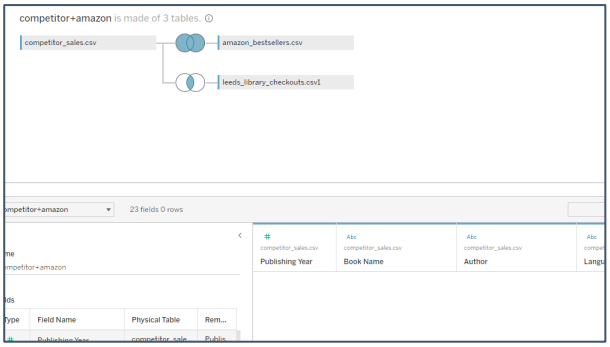
- competitor_sales.csv
- amazon_bestsellers.csv
- leeds_library_checkouts.csv

2. Connect to the competitor_sales.csv in Tableau using the Text connector type, which will reveal the other 2 specified text data sources.

3. Double click on **competitor_sales.csv** in the data source canvas to open the join window and drag in the **amazon_bestsellers.csv** table to form a join. Note how many records are created by the join.

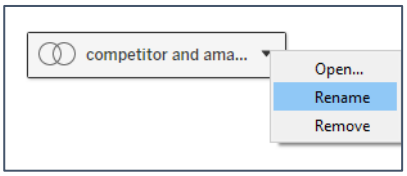
4. Selecting Full Outer join type, ensure that **Author** is the field the two tables are linked on – outer join will keep both sets of records (the inner join will only keep matching records only) so now the no. of rows should be 1835.

5. Now, add the **leeds_library_checkouts.csv** into the join - note that even though a join is also detected for Author, no data rows appear in the data preview. This means no matches on author name have been found.



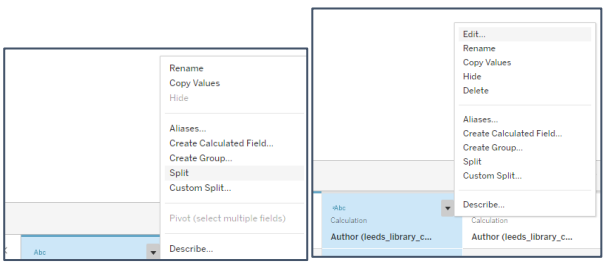
6. Use the view data or describe features to check the author's name column in **leeds_library_checkouts.csv** –the author first name and surname is reversed in this data source, compared to the first two text files. We will need a join calculation to resolve the join. As the calculation will be difficult to write, we can do it outside the join.

7. Remove the **leeds_library_checkouts.csv** from the join window and use the small cross to close the join window, staying in the data source view. Right click the join source to rename as 'competitor and amazon'.



8. Drag the **leeds_library_checkouts.csv** into the data source canvas, as a related data source (with the orange relationship connector line).

9. Once added, use Split to create columns of the first and second name of the Author in **leeds_library_checkouts.csv**. These new columns can be used to copy the syntax of the first and last name by using the **Edit** option.



10. Create a third calculated field in the **leeds_library_checkouts.csv** – called '**firstname lastname'**. You can copy the syntax of the split columns into the new calculated field, while checking that the output results are correct. The final calculated field syntax will look like:

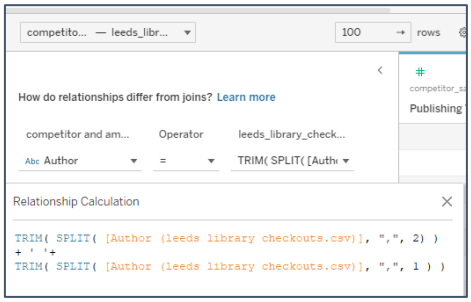
Abc leeds_library_checkouts.csv Author (leeds_library_c...	Abc Calculation firstname lastname
Patterson, James	James Patterson
Beaton, M.c	M.c Beaton
Robinson, Peter	Peter Robinson
Jacobs, Anna	Anna Jacobs

TRIM(SPLIT([Author (leeds library checkouts.csv)], ",", 2))

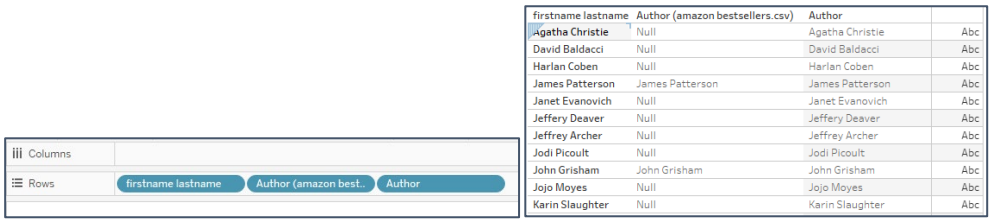
+ ' ' +

TRIM(SPLIT([Author (leeds library checkouts.csv)], ",", 1))

11. Once you visually confirm that the data values showing in this column match the format of the authors name in the other data sources, Edit and copy the syntax of the **firstname lastname** column to the join calculation for this relationship.

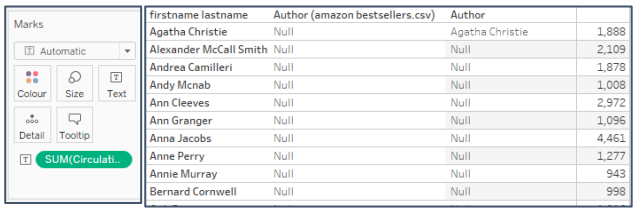


12. Now your relationship is defined, go into a new worksheet, and build a viz that validates the relationship. Add author name from the three data sources onto the rows, starting with the **firstname lastname** column followed by the Author from competitor sales and amazon data.



firstname lastname	Author (amazon bestsellers.csv)	Author	
Agatha Christie	Null	Agatha Christie	Abc
David Baldacci	Null	David Baldacci	Abc
Harlan Coben	Null	Harlan Coben	Abc
James Patterson	James Patterson	James Patterson	Abc
Janet Evanovich	Null	Janet Evanovich	Abc
Jeffery Deaver	Null	Jeffery Deaver	Abc
Jeffrey Archer	Null	Jeffrey Archer	Abc
Jodi Picoult	Null	Jodi Picoult	Abc
John Grisham	John Grisham	John Grisham	Abc
Jojo Moyes	Null	Jojo Moyes	Abc
Karin Slaughter	Null	Karin Slaughter	Abc

13. Add **SUM(Circulations)** from the Leeds library table into the label placeholder on the Marks card – notice the Null values where a matching author name has not been found. You should have 100 rows of data only.



firstname lastname	Author (amazon bestsellers.csv)	Author	
Agatha Christie	Null	Agatha Christie	1,888
Alexander McCall Smith	Null	Null	2,109
Andrea Camilleri	Null	Null	1,878
Andy Mcnab	Null	Null	1,008
Ann Cleeves	Null	Null	2,972
Ann Granger	Null	Null	1,096
Anna Jacobs	Null	Null	4,461
Anne Perry	Null	Null	1,277
Annie Murray	Null	Null	943
Bernard Cornwell	Null	Null	998

Optional challenges:

14. Duplicate the viz, using appropriate filters to tidy up the view so the viz shows only authors which exist across all sources.

15. Duplicate the viz a second time and add relevant measures / filters to

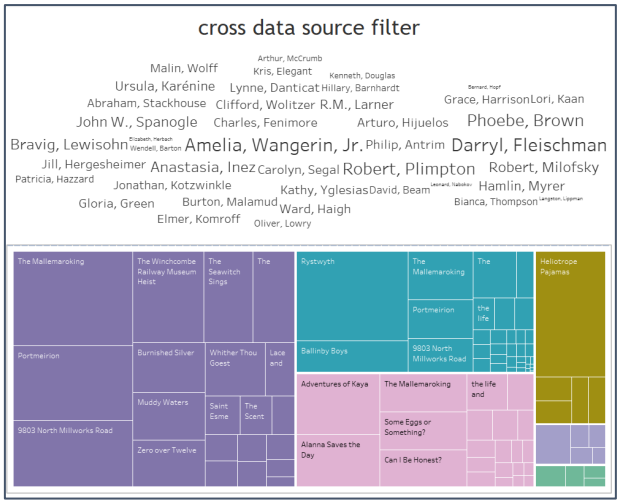
reveal how the popular authors in Leeds library compares to the ratings and other information found in the competitors and amazon sales sources.

Activity 3.3 – cross source filtering

- Open the pre-packaged workbook
- Test out the filters on the dashboard
- Make notes on the filter behaviour

3.3 Detailed instructions

1. Open the provided pre-packaged workbook **dashboard_filtering.twbx** either with Tableau, locally, or on the browser in Tableau Public
2. On the dashboard you will find two views – the word cloud drives the tree map. By viewing the worksheets individually, you will notice they are built from two separate data sources. (Hint: the data source has a blue tick.)
3. Use the word cloud to drive the tree map in the dashboard by selecting author names. Click again on the author's name to unselect that author. Some of the authors in 1 data set do not have matching books in the other data set– how do we know that to be true?



Your notes:

Activity 3.4 – design and build your model

- Review what you have learnt.
- Sketch out a data model for your case study.
- Add the bookshop data sources and combine using your chosen approach.
- Add at least one other data source to your workbook.

3.4 Detailed instructions

1. This activity is intended to be accomplished in small groups, pairs or alone.
2. Considering what you know now about combining data sources, design a data model which could help you answer the case study. This should include all the bookshop data sources (Bookshop.xls, Bookshop_Series.pdf, and the subfolder of the 4 quarterly csv files for the bookshop sales) and at least one other data source selected from the provided books sources which could help you work out which authors and titles will become more popular in the future.
3. For a reference point you can utilise the sketch_tables.png in the learner resources for this module, this is a diagram of how the bookshop data sources should be ideally combined.
4. Create a new workbook which brings in the data you want to use to satisfy the bookshop case study, connecting the chosen data sources in the most appropriate way.
5. Undertake any data preparation or re shaping steps as needed, deriving columns you feel will be useful for the case study.
6. Ensure the data types are correct and the fields are named correctly for your purposes.
7. Create any vizzes needed to validate the data source connection methods you have selected.
8. Apply any appropriate data source filters for your case study approach.
9. Save the workbook locally as books analysis model.

Module 4 – visualising and interactivity

Activity 4.1 – sales viz with 3 measures

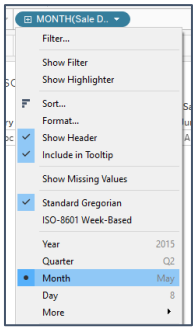
- Using your **books analysis model workbook.**
- Dual axis viz – volume of sales v discount %, per month.
- Add a third measure as reference label – no of unique edition/publications sold in the month.
- Edit axis labels, select colours, and mark size.

4.1 Detailed instructions

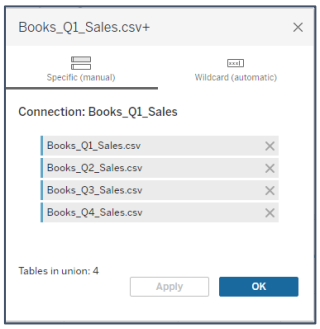
1. You should use your **books analysis model** workbook from the previous module for this activity.

*If you are not happy with your workbook, you can use the provided sample workbook **combined_book_data.twbx**.*

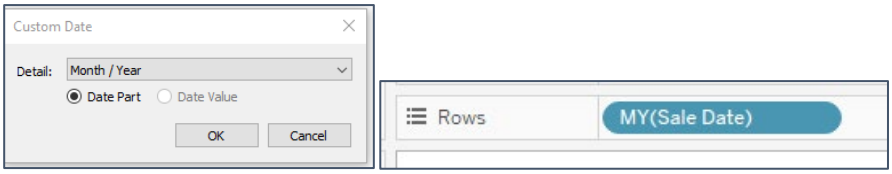
2. Start by creating a new worksheet, add the **Sale Date** from the quarterly sales data onto the rows. This field should be a data type, so choose the Month date part from **Sale Date** using the drop-down menu. Name the worksheet **monthly discount v sales.**



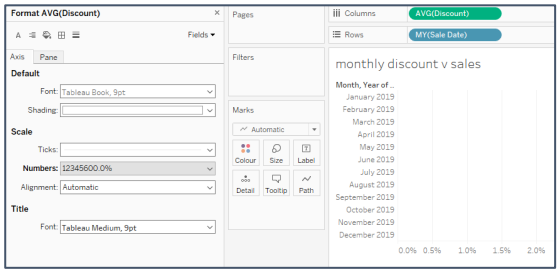
3. The sales quarterly data should have been combined using a UNION: Confirm this is true before continuing or pause now to edit your data model to union the Sales quarterly data sources.



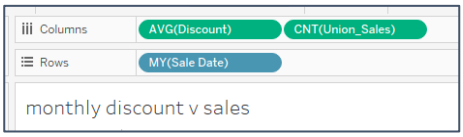
4. Using the date drop down menu from the sale date field on rows, choose date part > month/ year from the more> custom options on the date part section of the menu. This will give you a blue field called **MY(Sale Date)**.



5. Add to the columns the **Discount** measure from the quarterly sales data union and set aggregation to **Average**. Format the value on the scale for this field to Percentage with 1 decimal place.

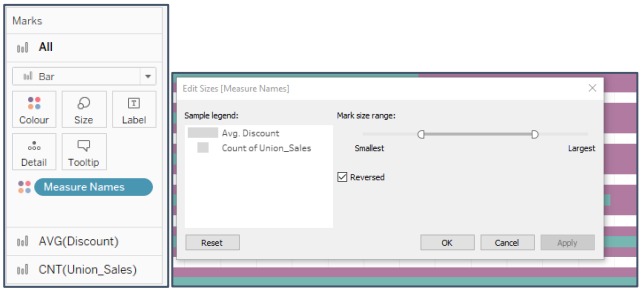


6. Add a second measure to the columns shelf: the count of the sales data rows, giving you a second green field on the columns.



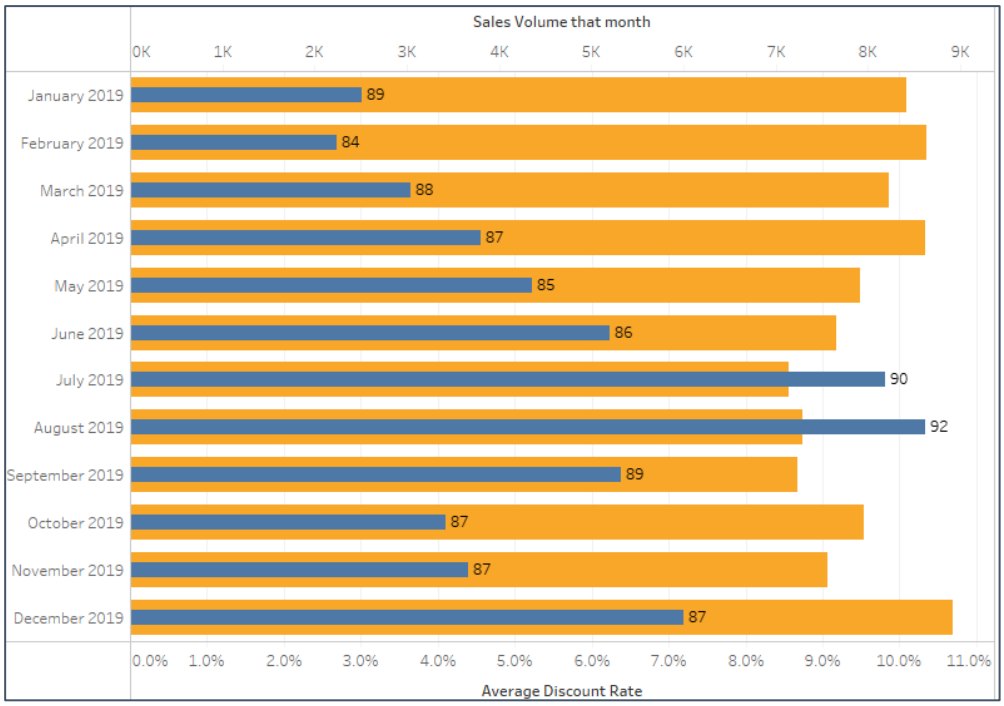
7. Right click to select either measure field, select **dual axis** so the measures plot on the same viz.

8. Ensure **Measure Names** is on colour on the **All** marks card. Set both measure marks cards mark type as bars and choose contrasting colours to represent the measures. Vary the size of the bars using **Measure Names.** Reverse the size allocation from the sizes legend so that the count of sales appears inside the discount bar.



9. Add a last measure, count of distinct ISBN from the editions table (you can either create a calculated field or use a right click drag to change the discrete **ISBN** field to a continuous COUNTD aggregation) – onto the bar labels of the thinner sales count bars.

10. Remove any null dates that appear in the viz after adding the 3rd measure, using the exclude filter (hint: right click on the null row).
11. Edit the axis titles to explain the viz better by right clicking on each axis choosing **Edit Axis…** and overwriting the **Title.**
12. Save and keep the workbook open for the next activity.



Optional challenge

13. Add any appropriate measures to the tooltips of each measure marks card so that when hovering over any bar, the transactions that month are explained well. Examples include:

    *What was the total revenue? (No of units sold * price -discount.)*

    How many discounts were given that month?

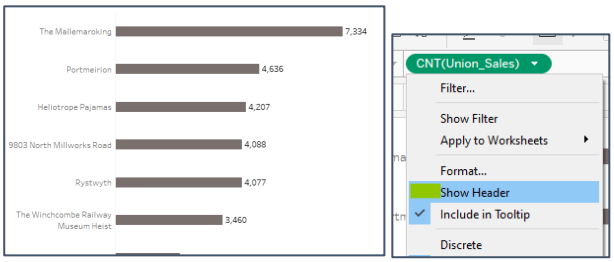
14. Add an appropriate colour coded title to further explain the viz.
15. Format the axis scale so no decimal places appear against Discount.
16. Add a filter to the viz for genre.

Activity 4.2– parameters for flexible filtering

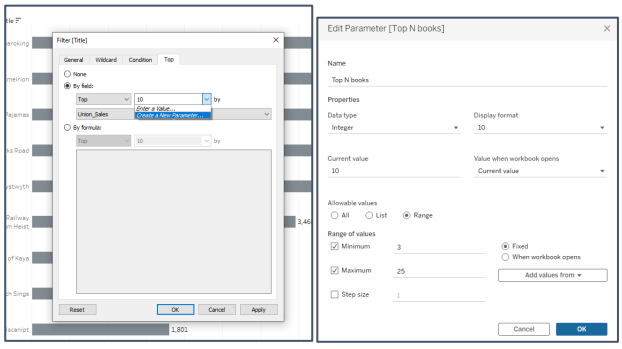
- Create base viz –book titles and total sales.
- Add a simple filter – top 10 titles by sales.
- Modify the filter, replacing 15 by N.

4.2 Detailed instructions

1. Using your books analysis model workbook continue from the previous activity. Create a new worksheet. Add the count of quarterly sales rows onto the Columns, and **Title** from the book table onto the Rows.
2. Sort the viz descending by sales count.
3. Add **Genre** from the info table onto tooltip on the marks card so that it appears in the tooltip when you hover over the bar.
4. Reduce the size of the bar and choose a simple single colour for the bar.
5. Use the format menu to remove **gridlines** from the viz.
6. Add the sales count onto the label on the Marks Card or use the T label indicator on the toolbar to show the label against the bar, before hiding the axis scale for the sales count by right clicking on the measure in the columns and unticking **Show Header**. This axis is not needed now that we have the bar labels for the same value.

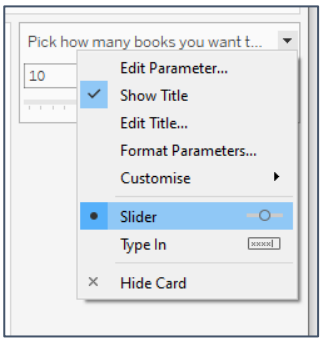


7. Drag **book title** onto the filters, selecting top 10 titles by sales count.
8. Edit the filter, replacing the hard coded 10 with a **parameter** allowing the end user to pick how many books they want to see, as an integer, as a range from 3-25 books. After selecting OK, this should automatically show the parameter on the top right of the viz. If it doesn't, right click on the parameter (bottom left of the data pane) and select **Show Parameter.**

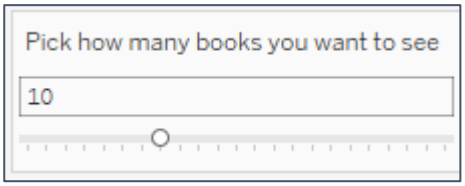


9. Edit the parameter value to see the number of book titles changing, before returning it to 10.

10. Customise the parameter appearance as a slider with the title ‘Pick how many books you want to see’ which will require editing / customisation in the filter drop down menu.

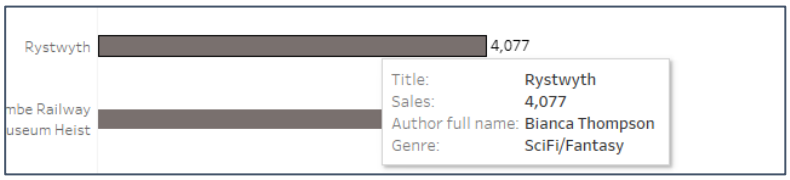


11. Save and keep the workbook open for the next activity.



Optional challenge

12. Create a new calculated field for the authors full name, combining First Name and Last Name, and add this calculation to the tooltip of the viz so that when you hover over a book you see the name of the author.

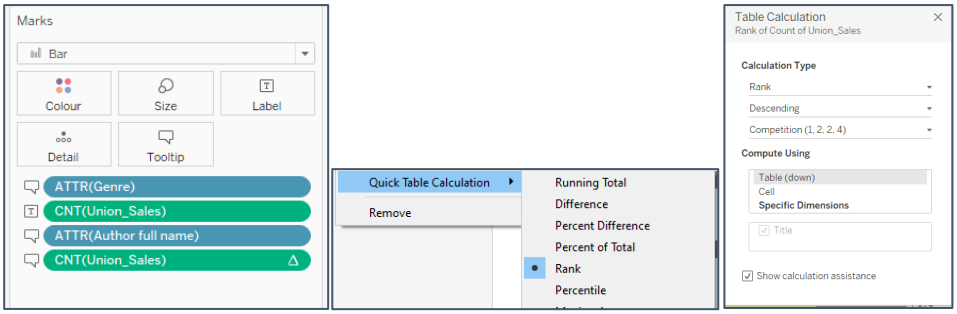


Activity 4.3 – add a tooltip to top N titles

- Use your top N book titles by sales.
- Add a copy of the sales measure to the tooltip, as table calculation rank.
- Create second viz as revenue over time.
- Configure the viz for the tooltip.
- Add to base viz and test.

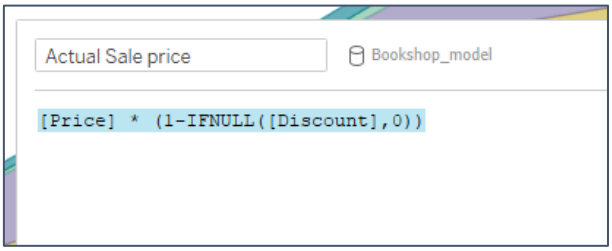
4.3 Detailed instructions

1. Continue using the same workbook. Make a duplicate of the previous book title viz as a new worksheet by right clicking on the tab.
2. Add a measure to the tooltip, the count of sales (which is also on the columns) but add a **quick table calculation** Rank() (or **Add a Table Calculation**, choosing Rank) to this measure – check the right information appears on the tooltip when you hover over a book title in the viz.



3. Remake the tooltip, editing the textual information into a full sentence.

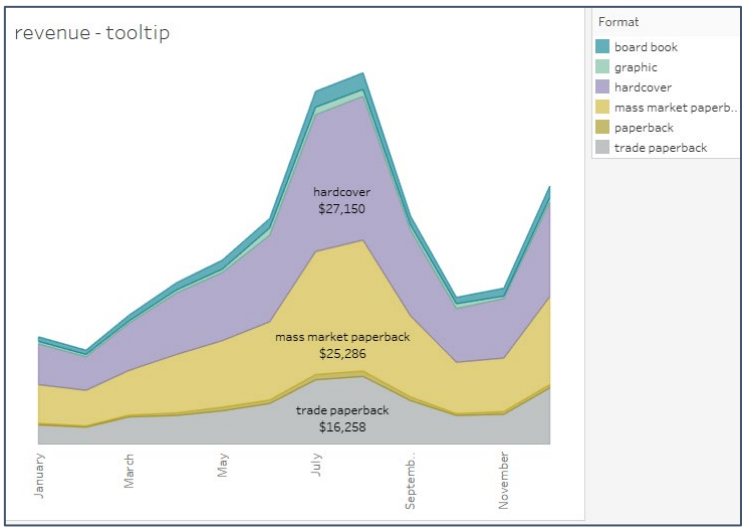
4. Create a second viz, which will appear in the tooltip. This should be an area chart showing the **actual sale price (revenue)** total per month on rows, broken down by the **format** of the editions sold, stacked. You will need to create a calculation for the actual sale price if you haven't already done so.



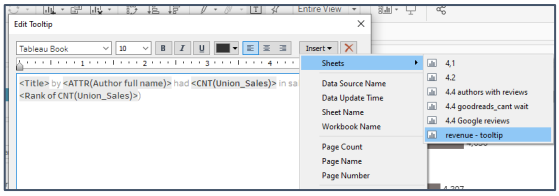
5. Add the format to the text label on the Marks card.

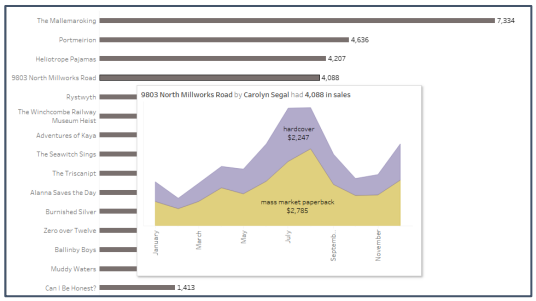
6. Make the tooltip viz as visually clean as possible - removing grid lines and unnecessary non data ink.

7. Assign colours to the formats, so the paperbacks are in similar shades.



8. Insert the tooltip viz into the tooltip of the previous worksheet using the tooltip menu on the Marks Card, as shown in the lesson. Test the tooltip to ensure it responds as expected when you hover over a book title in the viz.





9. Save and keep the workbook open for the next activity.

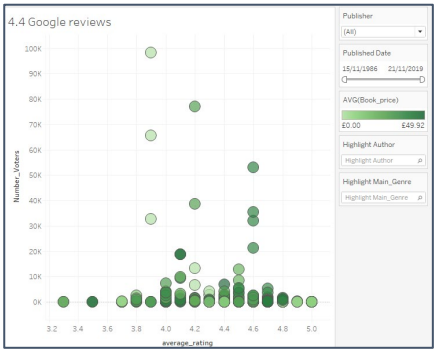
Activity 4.4 - scatter plot new titles

- Select a data source(s) which contains book ratings.
- Derive data as needed.
- Create a scatter plot showing the ratings and one other measure of interest.
- Add useful information to the tooltip.
- Add relevant highlighter, filter, pages.

4.4 Detailed instructions

(Instructions are provided below for one of the book ratings data sources as an example but you can choose any relevant data source for this activity, inside or separately to your model. Each data source will need different reshaping steps and possibly steps to derive the review data as measures.)

1. Continue using the same workbook – create a New Worksheet.
2. *(Optional) to add this file as a separate data source connection and follow the steps: use the Data drop-down menu, select **New Data Source**, connect to the **google_books_1299.csv** data set using the **Text File** connection type.*
3. Create a scatter plot by dragging **average rating** onto rows and **number of voters** to columns.
4. Drag **book price** onto colour on the marks card.
5. Change the average rating to aggregation average (as it is currently being summed for all records, do the same with book price.
6. Drag fields containing **Author**, **Title** onto Detail on the marks card and add a highlighter for Author.
7. Show filters for publisher, published date, apply a hidden filter for book price, retaining only those books priced at less than 50.
8. Use custom split to take the first genre for each book and use this new field also on detail for the marks card, before adding it as a highlighter to the viz. Test the filters, highlighters and the select in tooltip features.
9. Save the workbook and keep it open for the next activity.



Activity 4.5 – case study dashboard

- Compile book titles dashboard.
- Select data containing user reviews.
- Combine sources in the dashboard as needed.

4.5 prompts for the activity

1. Continue in the same workbook but before starting, make a sketch of how you want the dashboard to look – the contents, layout, and interactivity. Will you use the worksheets you already have or create new ones?
2. Who will your end user be – what kind of engagement will you want them to have with the dashboard? What sort of question do you want to answer about the book titles being sold in our case study book shop and the future book titles the book shop could acquire to sell?
3. When compiling your dashboard layout keep the following in mind:
    - Remember to select an appropriate size for the dashboard.
    - Don't try to squeeze too many things into one view.
    - Use layout containers or floating items to create the visual layout.
    - Keep in mind most people follow a z or f pattern when viewing vizzes.
    - Place filters or parameters in a logical place, close to the viz they control and if possible have them control all vizzes, intuitively.
    - Configure intuitive dashboard actions (dashboard drop down menu – add action) or give instructions in a text box / tooltip.
    - Think about consistent formatting and use of colour.
    - Improve your data ink ratio where possible.
    - Use the right chart for the right purpose.

Activity 4.6 – drill down dashboard

- Design a dashboard drill down journey which starts from the book titles dashboard.
- Drill by any of:

    Genre

    Author name

    Rating

4.6 prompts for the activity

1. Continue in the same workbook and work from the dashboard you already have, identifying a drill down feature in one of the existing vizzes.
2. Using the method you saw in class, create a second dashboard of new vizzes or combining vizzes you already have, which should be more detailed than the upper dashboard view, making it a good candidate for drilling down from the first dashboard.
3. Ensure the connecting information is in both the viz you are drilling down FROM and the vizzes you are drilling down TO - this field can be placed on detail of the Marks Card of source or target vizzes if it is not already present.
4. Ensure when you set up the dashboard action that it is a filter action with different dashboards specified in source and target.
5. Think about the other drill down criteria when you set up the filter action:
    - Will the action happen from the menu or on a select or hover?
    - Will you have a clear instruction in the menu or tooltip or in the dashboard about the drill down?
    - Will you use a navigation button to return to the original dashboard? What will it look like and what will it say?
    - Once you go back to the original dashboard will the drill down view return to its original state?

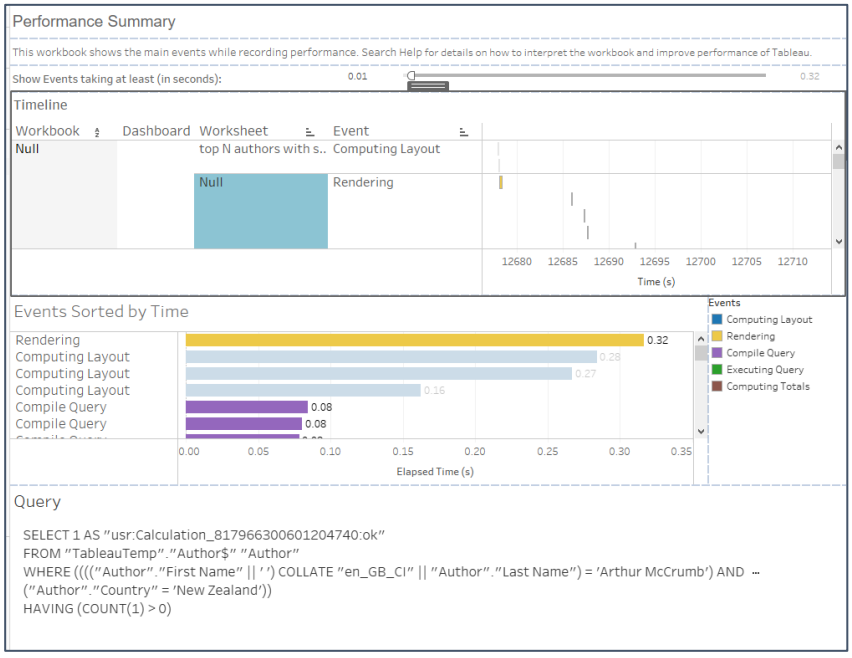
Module 5 – enhancements to the workbook

Activity 5.1– workbook performance

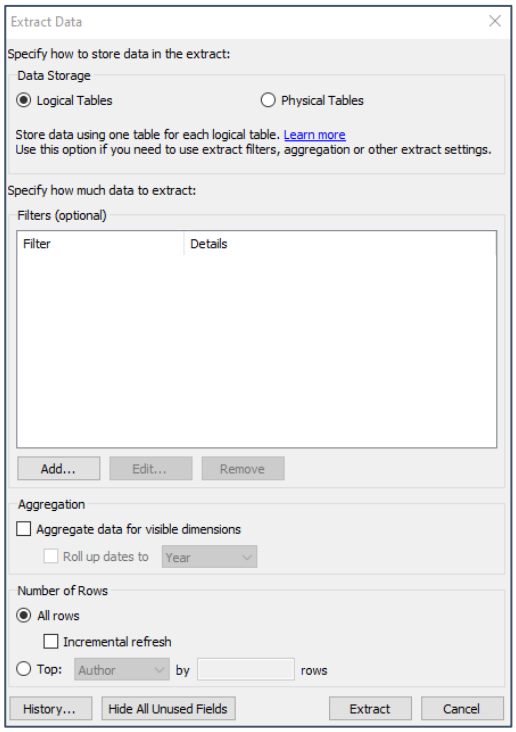
- Turn on performance recording.
- Interact with the dashboard.
- Review performance report.
- Switch from live to extract.
- Hide unused fields and save as new .twbx

5.1 Detailed instructions

1. Using your books analysis model workbook, continue from the previous activity – now you have plenty of vizzes we can try the performance monitoring capabilities of tableau.
2. From the help menu > settings and performance > start performance recording.
3. Go to your dashboard and vizzes, apply filters or parameters, or dashboard actions, follow the drill down journey, use the scatter plot features, create a new viz – any steps that will require a query for at least 5 minutes.
4. From the help menu > settings and performance > stop the performance recording.
5. Review the results of the performance recording workbook which will appear – note down which elements of interaction took longest.



6. Returning to your case study workbook, select the data source in the top of the data source pane and choose to extract data – applying reasonable conditions in the extract configuration window including hiding unused fields, before creating the extract.



7. Note the icon of the data source will have changed after this.
8. Save the optimised workbook under a different name as a twbx and close the workbook.

---

optional challenges

9. Repeat the performance recording steps again to see what has changed since you made the last few steps to improve the workbook performance.
10. You can also try publishing the dashboards to tableau public in both cases and compare how they perform in the browser – the data sets are small so you may not see a difference!

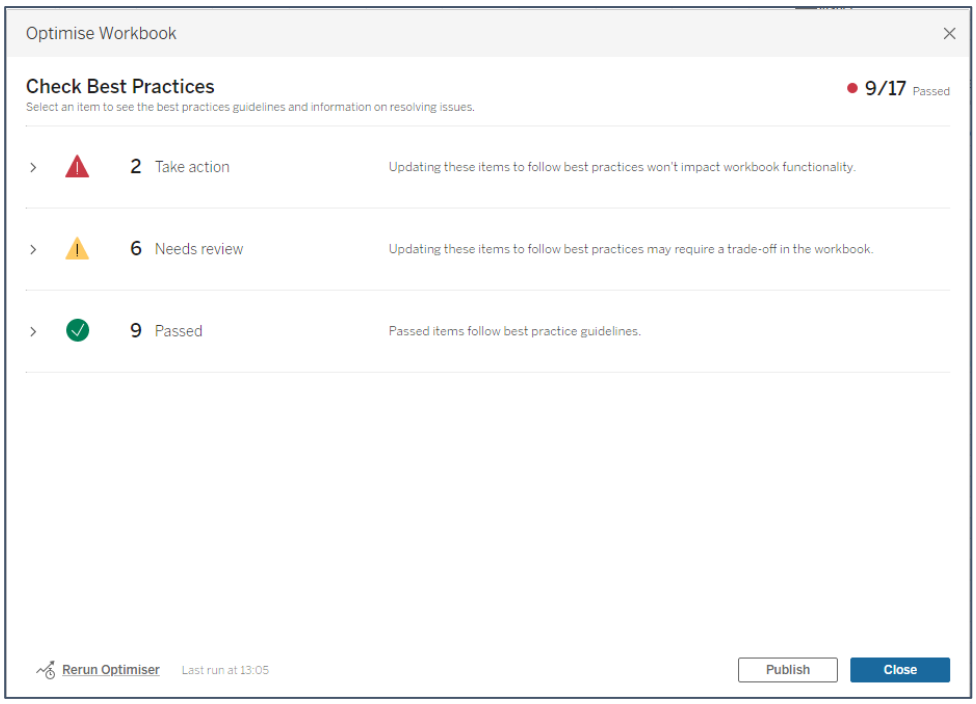
Activity 5.2– workbook performance

- From the server menu, run optimiser.
- Review optimiser results.
- Take any actions identified by this feature.

5.2 Detailed instructions

1. It is important to run this process at least twice to observe the changes.
2. Reopen your previous workbook (before the extract) for the bookshop case study.

3. From the Server drop down menu choose to run Optimiser.
4. Review the optimiser results and take actions as required.



5. Run the optimiser a second time to confirm the actions are reflected in the optimiser report.
6. Save and close the workbook.

FANCY A CHAT?

0345 757 3888
INFO@QA.COM

QALtd QA-Ltd QALtd QALimited

QA.COM