Knowledge Organiser: Data Visualisation with Tableau

Tableau is a business intelligence tool that allows you to effectively report insights through easy to use customisable visualisations and dashboards.

Tableau Definitions

Worksheet: A worksheet is a single view in a workbook. You can add shelves, cards, legends, visualisations, and more in a worksheet.
Dashboard: A collection of multiple worksheets used to display multiple views simultaneously.
Story: A story is a collection of multiple dashboards and/ or sheets that describe a data story.
Dimensions: A dimension is a type of field that contains qualitative values (e.g. locations, names, and departments).
Measures: A measure is a type of field that contains quantitative values (e.g. revenue, costs, and market sizes).

Filtering Data

1. Open the Data Pane on the left hand side.
2. Drag and drop a field you want to filter on and add it to the Filters card.
3. Fill out in the modal how you would like your visuals to be filtered on the data.

Customising Visualisations

Changing Colour

Colour is a critical component of visualizations. It draws attention to details. Attention is the most important component of strong storytelling. Colours in a graph can be set using the marks card.

1. Create a visualization by dragging fields into the Rows and Columns section at the top of the screen.
2. Drag dimensions into the Marks field, specifically into the Colour square.
3. To change from the default colours, go to the upper right corner of the colour legend and select edit Colours. This will bring up a dialog that allows you to select a different palette.

Changing Fonts

Fonts can help with the aesthetic of the visualization or help with consistent branding.

1. In the Format menu on the top ribbon, press on Select Workbook. This will replace the Data pane and allow you to make formatting decisions for the Workbook.
2. From here, select the font, font size, and colour.

Tableau Visualisations

- Bar Charts: Horizontal bars used for comparing specific values across categories.
- Stacked Bar Chart: Used to show categorical data within a bar chart.
- Side by-Side Bar Chart: Used to compare values across categories in a bar chart format
- Line Charts: Used for looking at a numeric value over time
- Scatter Plot: Used to identify patterns between two continuous variables
- Histogram: Used to show a distribution of data
- Box and Whisker Plot: Used to compare distributions between categorical variables
- Heat Map: Used to visualize data in rows and columns as colours
- Highlight Table: Used to show data values with conditional colour formatting
- Symbol Map: Used to show geographical data
- Map: Used to show geographical data with colour formatting
- Tree map: Used to show hierarchical data
- Dual Combination: Used to show two visualizations within the same visualization

Creating a Dashboard

Dashboards are an excellent way to consolidate visualizations and present data to a variety of stakeholders.

1. Lunch Tableau
2. In the Connect section under To A File, press on your desired file type
3. Select your file
4. Click the New Sheet at the bottom to create a new sheet
5. Create a visualisation in the sheet
6. Repeat previous steps until you have created all the visualisations you want to include in your dashboard
7. Click the New Dashboard at the bottom of the screen
8. On the lefthand side, you will see all your created sheets. Drag sheets into the dashboard
9. Adjust the layout of your sheets by dragging and dropping your visualizations

https://public.tableau.com/app/resources/learn