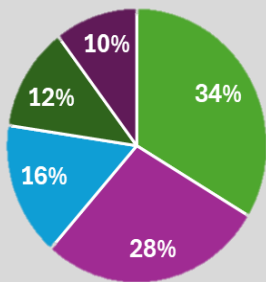
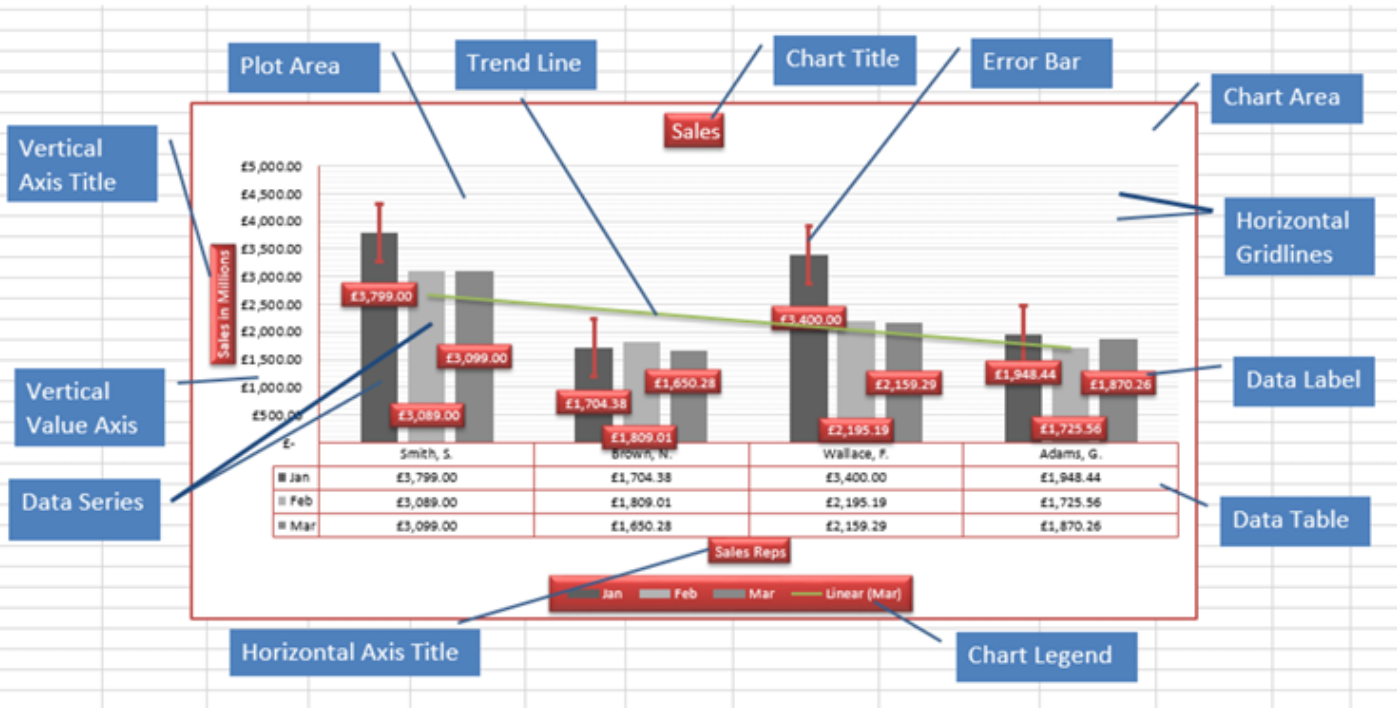
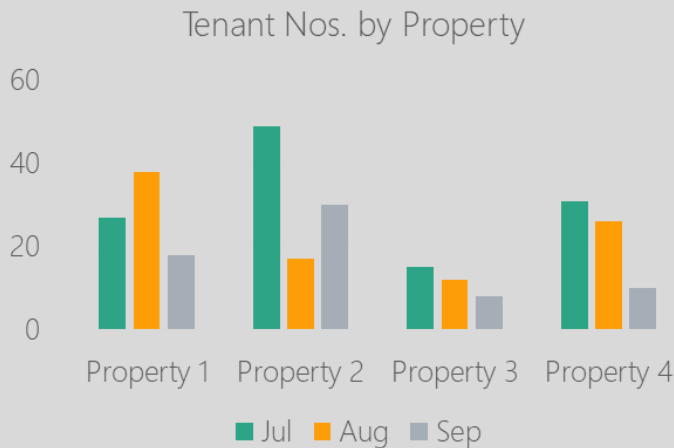


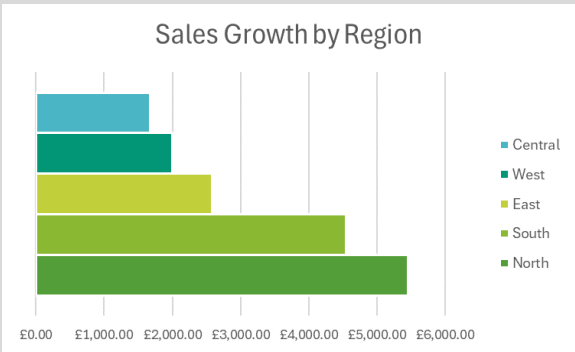
Charting terminology



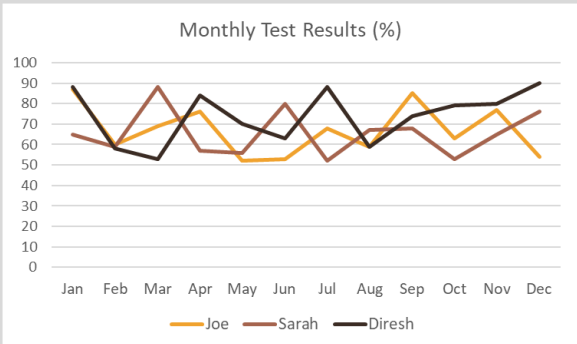
Pie Chart



Column Chart

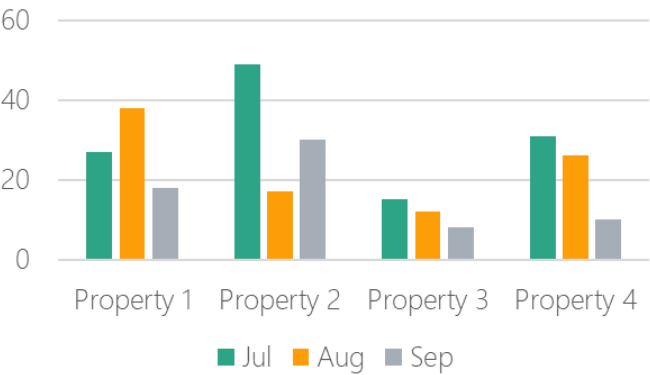


Bar Chart



Line Chart

Tenant Nos. by Property



Default Charts

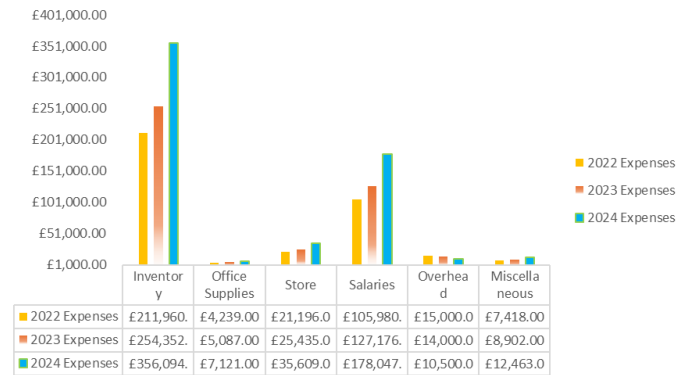
By default, using the keys Alt F1 will produce a column chart (see left). To customise your own default chart based on any chart type, select the data then:

- Go to CHANGE CHART TYPE
- Select specific chart icon on the left
- Right click on one of the variant icons along the top and SET AS DEFAULT CHART
- Select data and use Alt F1 again to apply new default chart

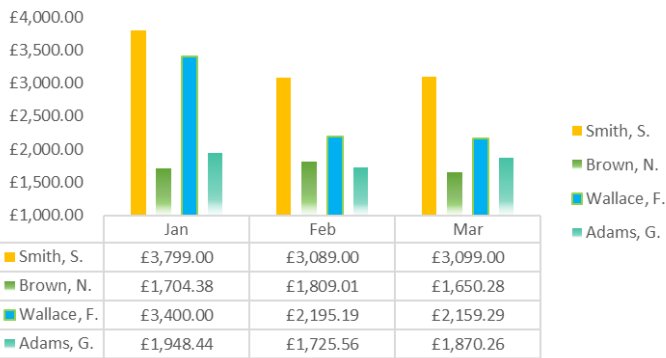
Template Charts

- Create a column chart based on selected data
- Switch row/column and add a style you like to the chart.
- Format the value axis to minimum 1000.
- Add a Chart Title and a Data Table.
- Remove all gridlines.
- Format the chart (change series colours , and move the legend)
- Right click inside the chart and select SAVE AS TEMPLATE
- Now select the data and create a column chart
- Go to CHANGE CHART TYPE > TEMPLATES and click on specific template
- See original and applied templates below

EXPENSE TYPE FOR 2022-24



SALES 1ST QTR



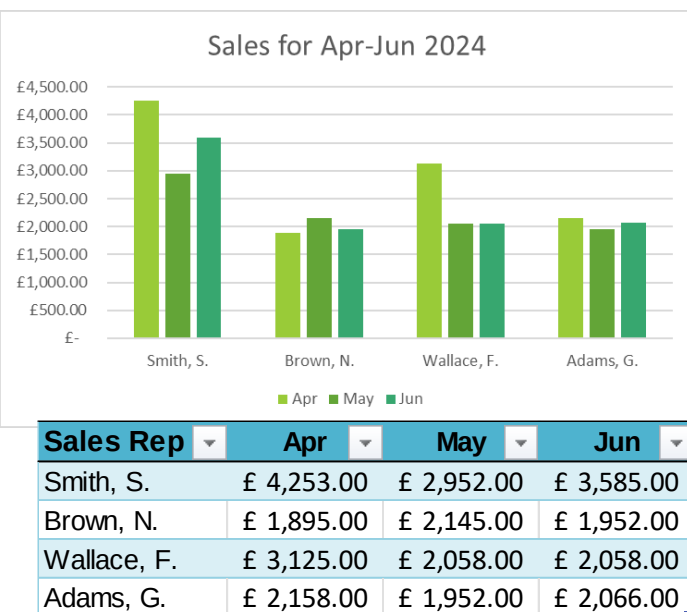
Original template

Applied template

Trendlines

Apply trendlines to see an upwards/downwards trend in performance over time

1. Select data and insert a Line Chart
2. Right click on the line and go to ADD TRENDLINE
3. Select Linear in Trendline Options
4. Under Trendline Name select CUSTOM to rename the legend
5. Under 'Forecast' set Forward to 3 periods



Add new data from Table

Make charts dynamic by turning data into a table

1. Select a cell in the data range and go to HOME > FORMAT AS TABLE. Select a table icon (shortcut: Ctrl T)
2. Click OK in the 'Create Table' box
3. Insert a column chart from the table
4. Add a new row of data below the table and note the chart updates

Sparklines

Sparklines in Excel are tiny charts that fit within a single cell to provide a visual representation of data trends. They are useful for showing trends in a series of values, such as seasonal increases or decreases, economic cycles, or to highlight maximum and minimum values¹. There are three types of sparklines in Excel:

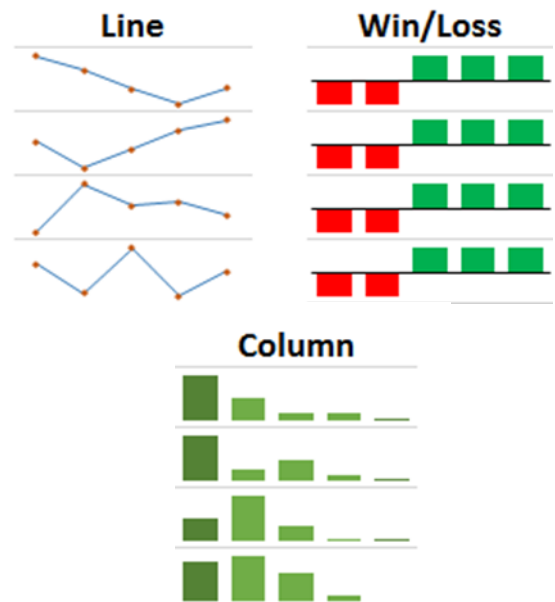
Line Sparklines: Show data trends over time.

Column Sparklines: Compare different values.

Win/Loss Sparklines: Highlight positive and negative values

To create Sparklines click on the link below:

[How to Use Sparklines in Excel to Visualise Data Trends](#)



Excel Charting

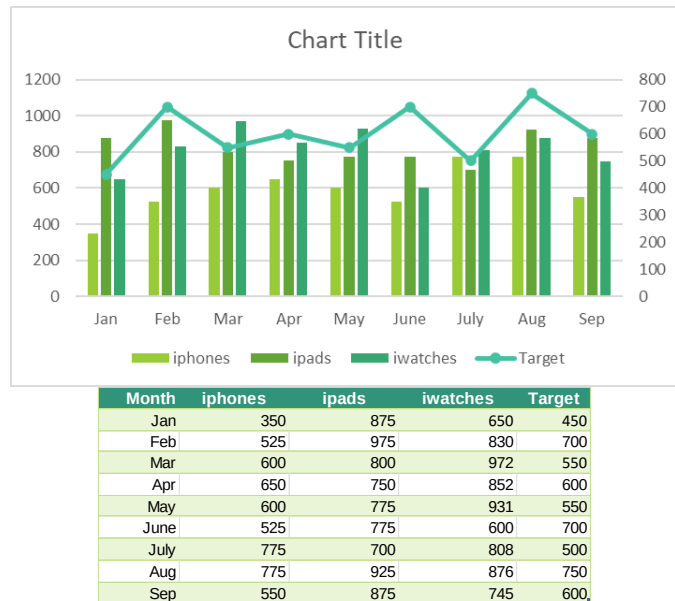


Combo Charts – 3 types

Combo Chart 1

Used to display performance tracking (see right)

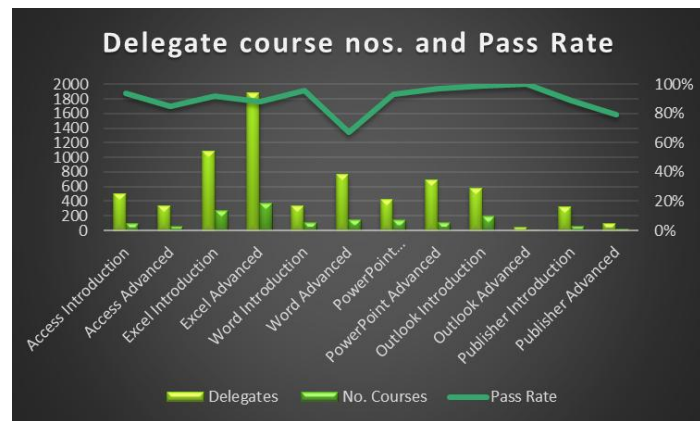
1. Select data including targets and insert a column chart
2. Right click on Target column and select CHANGE SERIES CHART TYPE
3. In the Target drop down, choose a Line Chart



Combo Chart 2

Used to handle outlier data that does not fit the general pattern of the rest of the data

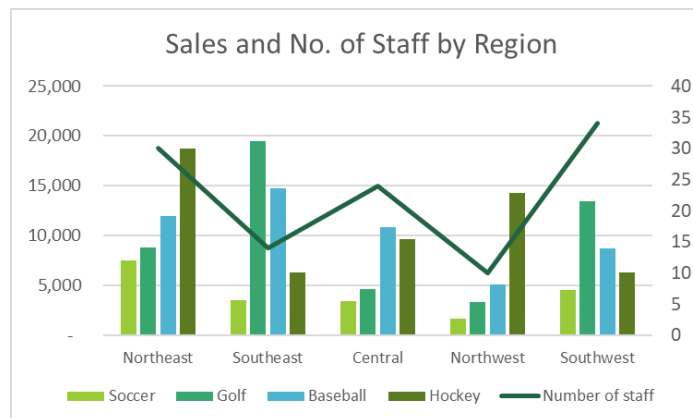
1. Select data and go to INSERT > COMBO icon > COLUMN – line on secondary axis (see right)
2. Reset secondary axis to 100% (right click axis > FORMAT AXIS)



Combo Chart 3

Used to add data from different places ie. non-contiguous data

1. Create a column chart from the 'Regional Sales' data ie. A7:F11
2. Go to SELECT DATA > ADD (to add another legend entry)
3. Select 'Number of Staff' in Series Name field
4. Select actual figures (cells C30:G30) in Series Values field
5. Click OK twice
6. No. Staff figures are not visible so go to CHANGE CHART TYPE > COMBO and reset any Lines to Columns
7. For the 'No. of Staff', set to Line and tick secondary axis



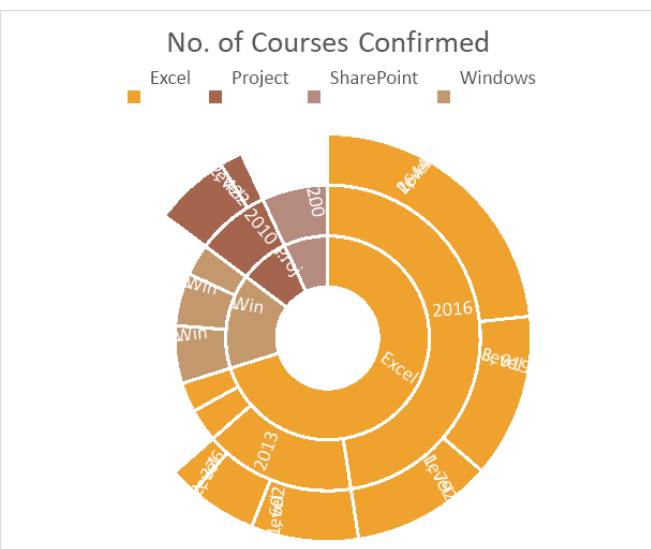
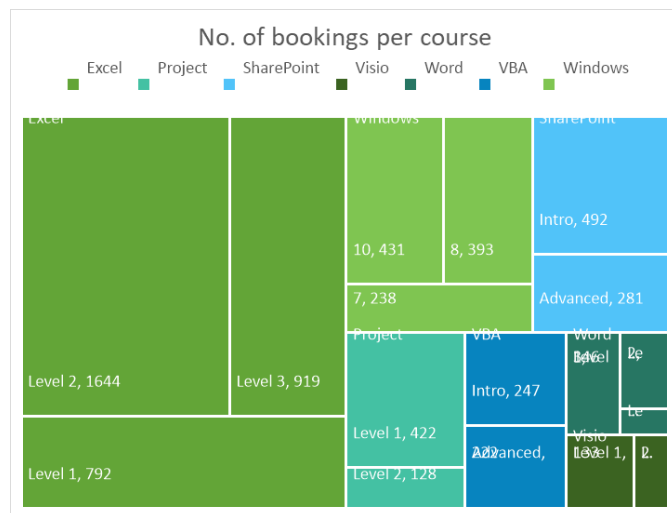
Product	Northeast	Southeast	Central	Northwest	Southwest
Soccer	7,500	3,500	3,400	1,700	4,500
Golf	8,800	19,500	4,600	3,300	13,400
Baseball	12,000	14,730	10,800	5,100	8,700
Hockey	18,700	6,300	9,600	14,278	6,300

	Northeast	Southeast	Central	Northwest	Southwest
Number of staff	30	14	24	10	34

Tree Map

Use Tree Map charts to show different levels of hierarchy (see right)

1. Select data and go to INSERT > HIERARCHY CHART > TREEMAP
2. Set Data Labels by going to DATA LABELS (via green +) MORE DATA LABEL OPTIONS > tick VALUE box



Sunburst

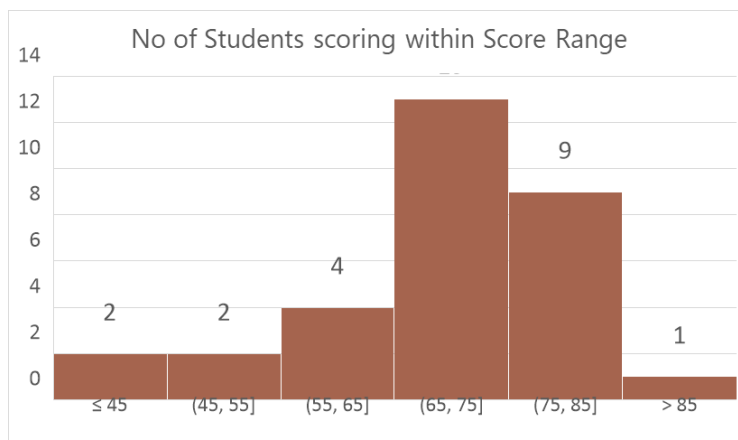
Use Sunburst charts to plot hierarchical data from the centre outwards (see left)

1. Select data and go to INSERT > HIERARCHY CHART > SUNBURST
2. Set Data Labels by going to DATA LABELS (via green +) MORE DATA LABEL OPTIONS > tick VALUE box

Histogram

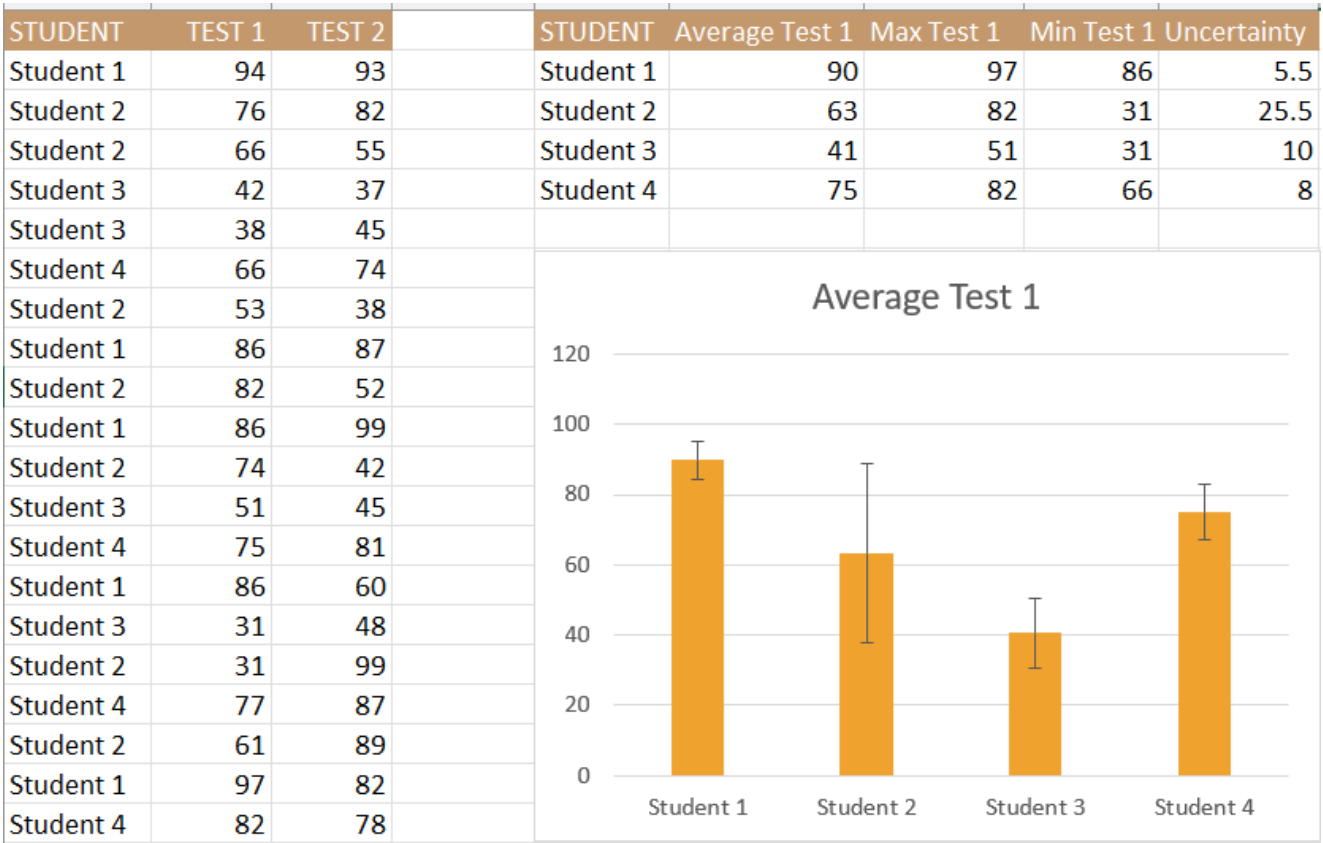
Use Histograms to plot frequency of values into Bins - or bands - (see right)

1. Select data and go to INSERT > HISTOGRAM
2. Right click on the x axis and FORMAT AXIS to customise the Bins
 - o Number of Bins: 6
 - o Overflow bin: 85
 - o Underflow bin: 45



Error Bars

Error Bars are graphical representations that show the variability of data. They help illustrate the uncertainty or error in the data points, providing a visual indication of the precision of measurements.



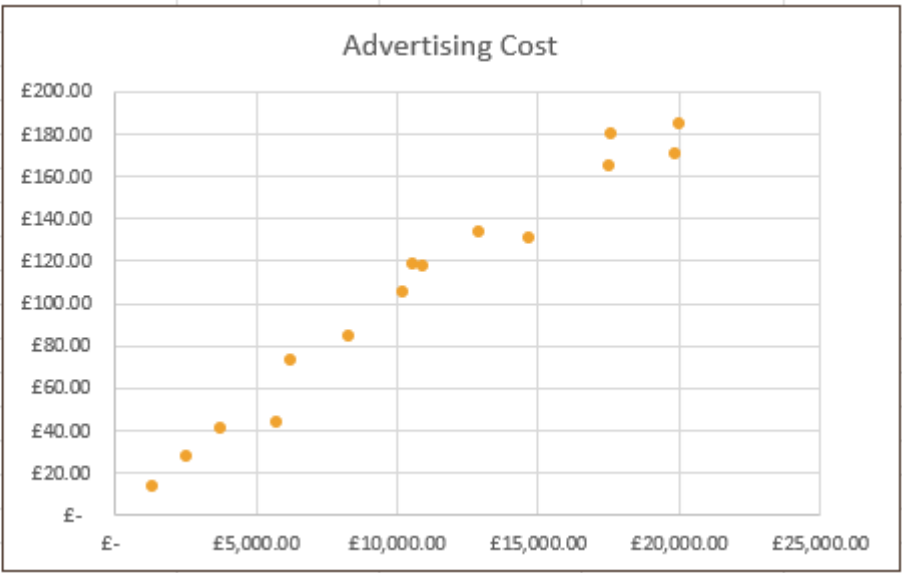
Customising Error Bars

1. Create average, maximum and minimum scores for test 1 from the source data (left table) using AVERAGE, MAXIFS and MINIFS functions (right table)
2. Create an 'Uncertainty' calculation: $=(\text{Max test 1} - \text{Min test 1})/2$
3. Create Col Chart (alt F1)
4. Add Error bars
5. Right click an error bar > Format Error Bars
6. Click on Custom and in the 'Value' field select the 'Uncertainty Range' for both positive and negative fields

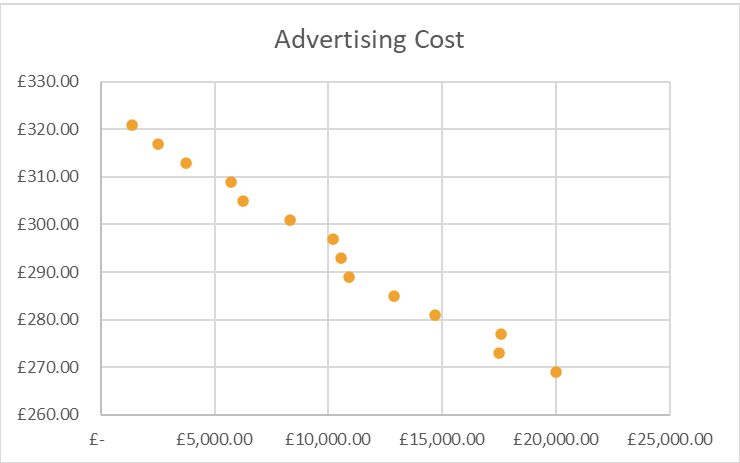
Scatter Charts

Use Scatter Charts to show correlations between specific pairs of data ranges.

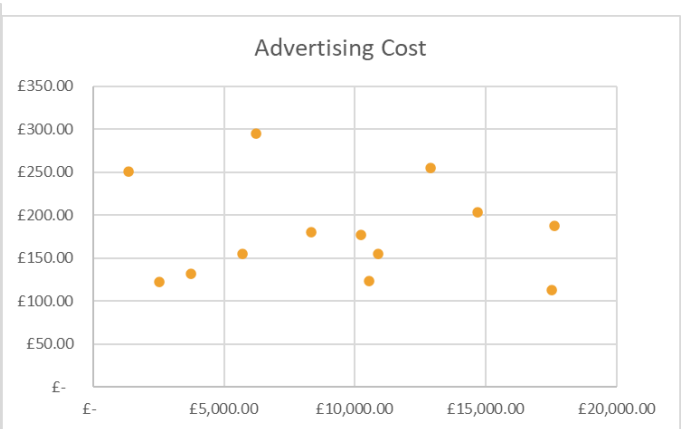
Sales		Advertising Cost	
£	1,362.50	£	14.10
£	2,528.60	£	27.60
£	3,729.30	£	41.40
£	5,712.80	£	44.00
£	6,233.50	£	73.50
£	8,322.60	£	84.60
£	10,224.90	£	105.00
£	10,547.20	£	118.40
£	10,892.70	£	117.90
£	12,905.00	£	134.00
£	14,698.20	£	130.90
£	17,606.40	£	180.00
£	17,517.50	£	165.10
£	19,985.00	£	184.80
£	19,857.00	£	171.00
Correlation		98%	



1. Ensure your data is organized in two columns. The first column will be your X-axis data, and the second column will be your Y-axis data.
2. Select the data columns and go to INSERT > SCATTER CHART icon
3. Add a Trendline to the chart. The closer the scatter chart is to the trendline, the more correlation there is between the 2 data ranges
4. In numerical terms, the closer to 1 or 100% the greater the degree of correlation. Note the CORREL function results in a 98% correlation
5. Conversely, the closer to -1 or -100% the greater the degree of inverse correlation. Note the scatter chart (bottom left) displays a strong inverse correlation whereas the scatter chart (bottom right) displays a weak inverse correlation (ie. more scattering)



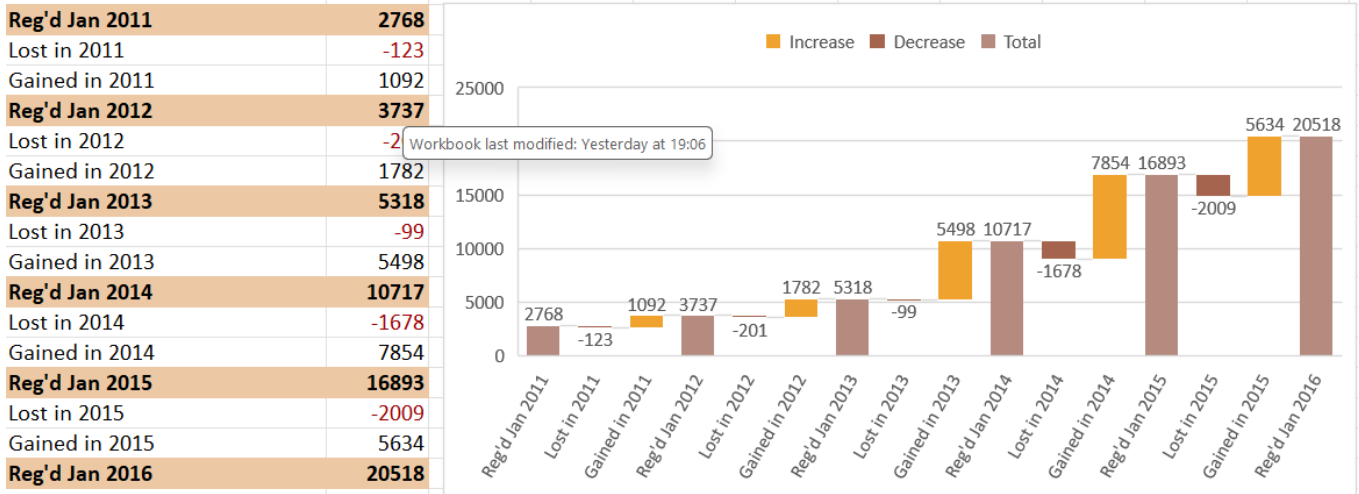
Inverse Correlation (-99%)



Weak Correlation (-13%)

Waterfall Charts

A Waterfall chart in Excel is a type of chart that helps visualize how an initial value is affected by a series of intermediate positive or negative values, leading to a final result. It's particularly useful for understanding financial data, such as tracking profits and losses over time



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[Using Excel to build a simple dashboard](#)

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