



Create Charts

Session 1: Create Charts

Types of Charts

Column Chart

- Compares several items in a specific range of values
- Ideal to compare a single category of data between individual sub-items
- There are 2 other types of column charts – Clustered column chart and Stacked column chart

Clustered column chart

- Compares multiple categories of data within individual sub-items as well as between sub-items

Stacked column chart

- Compares items in a specific range of values
- Shows the relationship of the individual sub-items with the whole

Line chart

- Shows trends over a period of time

Pie chart

- Represents the distribution or proportion of each data item over a total value
- Most effective when plotting not more than three categories of data

Bar chart

- Compares several categories of data
- Helps to visualise the distribution of more than three categories of data items

Area chart

- Ideal for showing the magnitude of change between two or more data points

Combination chart

- Combines two or more chart types into a single chart
- Helps compare two categories of each individual sub-item

XY Scatter plot chart

- Shows correlations between two sets of values chart

Bubble chart

- Is a variation of an XY scatter plot
- Shows the correlation between two sets of data
- Adds a third dimension to show the relative impact of a quantitative data item

1. Select the range.
2. In the Insert tab, in the Charts group, click the Line symbol.
3. Click Line with Markers.

The steps to **change the chart type** are:

1. Select the chart.
2. After selecting the chart, on the Chart Design tab, in the Type group, click Change Chart Type.
3. On the left side, click Column.
4. Click OK.

The steps to **switch row or column in a chart** are:

1. Select the chart.
2. On the Design tab, in the Data group, click Switch Row/Column.

The steps to **move the Legend Position** are:

1. Select the chart.
2. Click the + button on the right side of the chart.
3. Click the arrow next to Legend.
4. Click Right.

The steps to **add Data Labels** are as follows:

1. Click the green bar to select Data Labels.
2. Click the + button on the right side of the chart.
3. Click the checkbox next to Data Labels.

The steps **create a Sunburst chart**:

1. Select the entire data range.
2. Click Insert, Hierarchy Chart and then Sunburst.

The steps create a **Treemap chart**:

1. Select the entire data range.
2. Click Insert, Hierarchy Chart and then Treemap

The steps to **Move Chart to a Separate Sheet**:

1. Select the chart.
2. On the Design tab, in the Location group, click Move Chart. Move Chart dialog box appears.

3. Click New sheet, in this example Chart 1.
4. Enter a name.
5. Click OK.

Alternative Way to Move Chart to New Worksheet:

1. Create a chart in the current worksheet.
2. Right-click the chart.
3. Choose Move Chart in the menu.
4. Click New Sheet.
5. Click OK.

The steps to **move a Chart Back to the Source Data Worksheet:**

1. Select the chart.
2. On the Design tab, in the Location group, click Move Chart.
3. Click Object in.

The steps to **insert a Chart Sheet:**

1. Right-click any sheet tab in the workbook.
2. Choose Insert in the menu.
3. Choose Chart in the window.
4. Click OK.
5. In the chart sheet, click Select Data in the toolbar.
6. Select the range that you need.
7. Click OK.

Create Chart from Multiple Worksheets

The steps to **create Chart from Multiple Worksheets** are:

1. Create a chart based on the first sheet.
 - Select the data you want to plot in the chart.

1. Click anywhere on the chart.
2. On the worksheet, drag the sizing handles to include the new data.

The steps to **add Data Series to Embedded Charts – New Row:**

1. Right-click the chart and choose Select Data from context menu.
2. In the Select Data Source dialog, click Add button.
3. In Edit Series dialog, specify the Series name and Series values by selecting the data you need from the data range.
4. Click OK to close the dialog box.

The steps to **add New Data Series to Chart on Separate Sheet:**

1. In the cells directly next to or below the existing source data for the chart, enter the new data series you want to add.
2. Click the worksheet that contains the chart.
3. Right-click on the chart.
4. Choose Select Data.
5. Leaving the Select Data Source dialog box open, click on the worksheet.
6. Click Add.
7. Click the Expand dialog button next to Series name to select the name on the worksheet.
8. Click the Expand dialog button next to Series values to select the range on the worksheet.
9. Click and drag to select all the new data series.
10. Click OK to close the dialog box and to return to the chart sheet.

Switch Between Rows and Columns in Source Data

The steps to **change Data Plotting:**

1. Click anywhere in the chart that contains the data series you want to plot on different axes.

2. On the Chart Design tab, in the Data group, click Switch Row/Column.

Add and Modify Chart Elements

The steps to add or remove Excel Chart Elements from a chart:

1. On clicking + sign, all the chart elements are shown with checkboxes before them.

2. On ticking a checkbox, Excel adds that chart element with default setting on the chart area.
3. Hovering over a chart element in the menu, an arrowhead is visible next to that chart element.
4. Clicking the Arrowhead, it will show customised options for adding that chart element.
5. Choosing from the listed settings or click on more options to customise that chart element.

The steps to **add Data Label Elements to the chart**:

1. Click the plus sign.
2. Click Data Labels.

The steps to **add the Primary Major Vertical gridline to the chart**:

1. Click the plus sign.
2. Move the cursor on the Gridline option.
3. Click the arrowhead sign and check the Primary Major Vertical gridlines.

The steps to **remove Chart Title from the chart**:

1. Unchecking the Chart Title checkbox will remove the title from the chart.

Add Trendlines to Chart

The steps to **add Trendline in Excel**:

1. Click anywhere in the chart to select it.
2. Click the + plus sign.
3. Check the Trendline box to insert the default linear trendline.

4. Click the arrow next to the Trendline box and choose one of the suggested types.
5. Click the arrow next to Trendline and then click More Options.
6. This will open the Format Trendline pane, where you can see all the trendlines.

The steps to **insert Multiple Trendlines in the Same Chart:**

1. Right-click the data points of interest.
2. Choose Add Trendline from the context menu.
3. This will open the Trendline Options tab of the pane. Desired line type can be choose.

The steps to **extend Trendline in Excel:**

1. Double-click the trendline to open the Format Trendline pane.
2. On the Trendline Options tab, type the desired values in the Forward and/or Backward boxes under Forecast.

The steps to **draw Different Trendline Types for the Same Data Series:**

1. Right-click the data series.
2. Select Add Trendline in the context menu.
3. Choose a different trend line type on the pane.

Or

- A. Click the Chart Elements button.
- B. Click the arrow next to Trendline.
- C. Choose the type you want to add.

The steps to **format a Trendline in Excel:**

1. Right-click the trendline.
2. Then, click Format Trendline.
3. On the pane, switch to the Fill & Line tab.
 - Choose the colour.
 - Choose the width.
 - Choose the dash type for your trendline.

Session 3: Format Charts

Apply Chart Layouts

The steps to **apply Chart Layouts:**

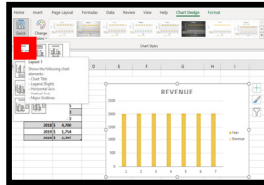
1. Select the chart you want to format.
2. Click the Design tab.

3. Click the Quick Layout button.
4. Select the layout you want to use.

Chart Layouts

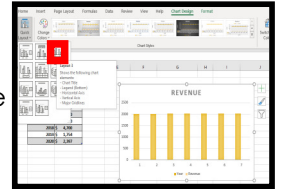
Layout 1

1. Chart Title,
2. Legend to the right,
3. Horizontal Axis,
4. Vertical Axis and
5. Major Gridlines.



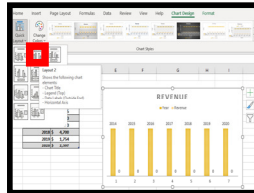
Layout 4

1. Legend at the bottom,
2. Data Labels (outside end),
3. Horizontal Axis and
4. Vertical Axis.



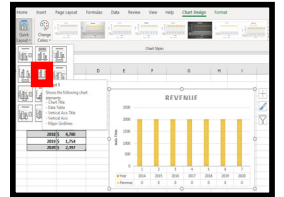
Layout 2

1. Chart Title,
2. Legend at the top,
3. Data Labels (outside end)
4. Horizontal Axis.



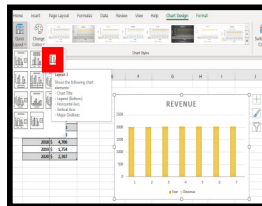
Layout 5

1. Chart Title,
2. Data Table,
3. Vertical Axis Title,
4. Vertical Axis and
5. Major Gridlines



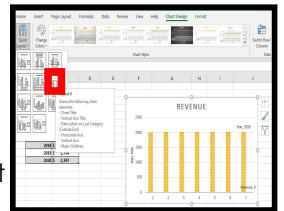
Layout 3

1. Chart Title,
2. Legend at the bottom,
3. Horizontal Axis,
4. Vertical Axis and
5. Major Gridlines



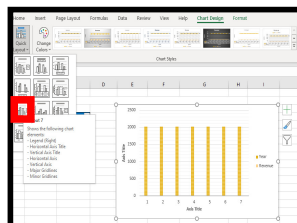
Layout 6

1. Chart Title,
2. Vertical Axis Title,
3. Data Labels on last category(outside end),
4. Horizontal Axis,
5. Vertical Axis and
6. Major Gridlines.



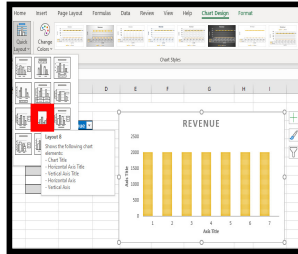
Layout 7

1. Legend to the right,
2. Horizontal Axis Title,
3. Vertical Axis Title,
4. Horizontal Axis
5. Vertical Axis
6. Major Gridlines and
7. Minor Gridlines.



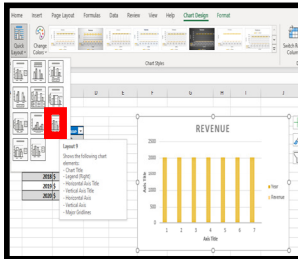
Layout 8

1. Chart Title,
2. Horizontal Axis Title,
3. Vertical Axis Title,
4. Horizontal Axis and
5. Vertical Axis.



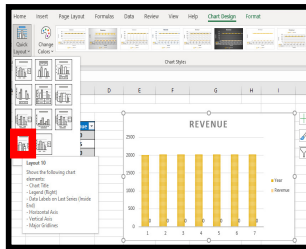
Layout 9

1. Chart Title,
2. Legend to the right,
3. Horizontal Axis Title,
4. Vertical Axis Title,
5. Horizontal Axis,
6. Vertical Axis and
7. Major Gridlines.



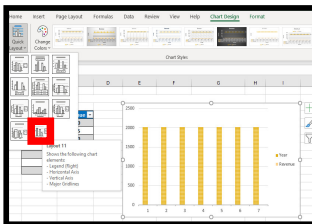
Layout 10

1. Chart Title,
2. Legend to the right,
3. Data Labels on last series,
4. Horizontal Axis,
5. Vertical Axis and
6. Major Gridlines.



Layout 11

1. Legend to the right,
2. Horizontal Axis,
3. Vertical Axis and
4. Major Gridlines.



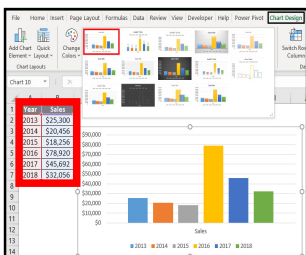
The steps add Data Series to Charts:

1. Select the table.
2. Go to Insert menu.
3. Select a style from 2D charts.
4. Select the inserted chart.
5. Press Ctrl+1, which is a shortcut to format a chart.
6. Select the inserted chart and you will get Design menu in the menu bar.
7. Click on the Design menu. It will provide a list of chart styles.

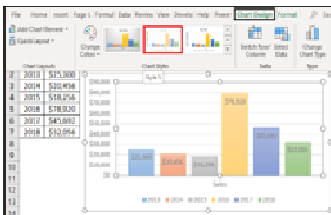


Chart Styles

Style 1: With Gridlines



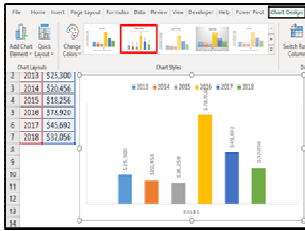
Style 5: Light Colours of the Columns



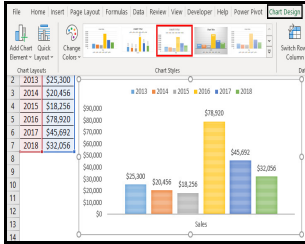
Style 6: Light Gridlines



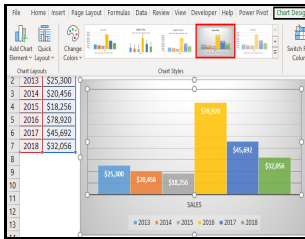
Style 2: Data Labelled in a Vertical Way



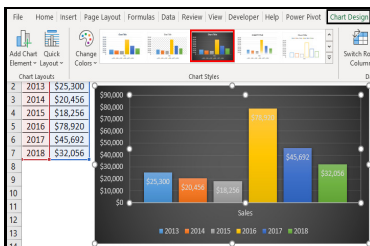
Style 3: Shaded Column



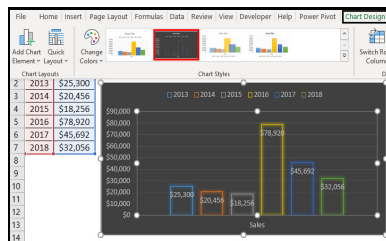
Style 4: Grey Shade Background



Style 8: Black Background

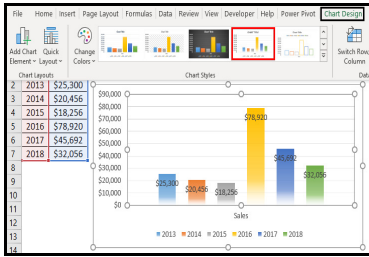


Style 12: Empty Bars with Black Background

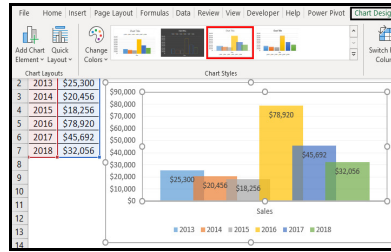


Style 9: Smokey Bottom

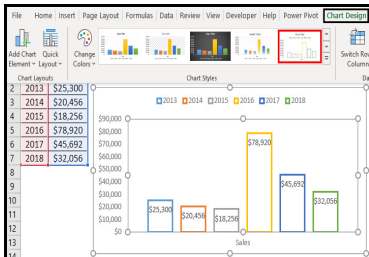
Style 13: Overlapping Bars



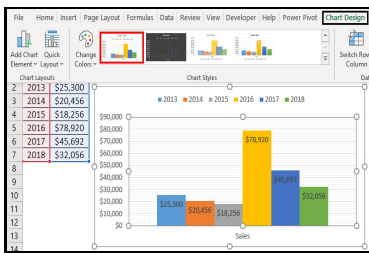
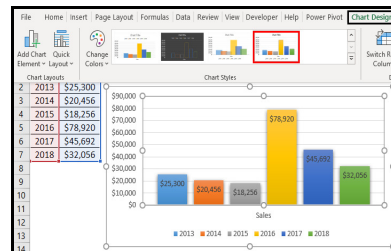
Style 10: Empty Bars with Outlines



Style 14: Column Bar with Intense Effect



Style 11: Connected Bars



Elements to be Included in Alt Text

Table, Chart or Graph

1. Give an overview of the data
2. Give the pattern description
3. Mention if there is no pattern
4. For a graph, explain what each axis shows and note any potential trends

Image

1. Give information about people, setting, objects or context

2. Give a caption along with any figure or reference numbers
3. Describe the image in more detail

The steps to **add Alt Text to an object in Excel:**

1. Open the spreadsheet and add an object. Click Insert and then Picture.
2. Select the object.
3. Right-click the object.
4. Select Edit Alt Text from the menu that appears.

Recap:

- A chart helps in visual representation of data.
- A chart consists of several elements.
- Applying predefined layouts or styles to the charts or customise them by manually changing the chart elements according to your preferences.
- Based on the number of worksheet rows and columns, MS Excel plots data in a chart, placing the larger number on the horizontal axis.

- After you switch rows to columns in a chart, the columns of data are plotted on the vertical axis and the rows of data are plotted on the horizontal axis.
- A trendline is also referred to as a line of best fit. It is a straight or curved line in a chart that shows the general pattern or overall direction of the data.
- Built-in chart layouts can quickly adjust the overall layout of a chart with different combinations of titles, labels and chart orientations.
- Alternative text or Alt Text is added to make pictures and graphical content accessible to people with visual impairments.
- Alt Text can be created for shapes, pictures, charts, SmartArt graphics or other objects in an Office document.
