

# Microsoft Excel - Analysis and Dashboards

## Course Overview - 1-day course

Our Excel Analysis and Dashboards course requires you to get your hands dirty. We work through multiple exercises so you can learn to master the tools of data modelling, analysis and building visuals for effective Dashboards. We complete the course by working through a Case Study pulling all the aspects we teach on the day together, so you have a fully worked example to take back to the office.

**Business Case Study** –You will start with raw sales data for a Comedy Roadshow. We model the data using PowerPivot, creating relationships and the necessary calculations to build our interactive Dashboard for assessing Sales performance and profitability across various cities



## Detailed Content

### Data Modelling

- Starting a dataset in Excel
- Multiple Tables
- Data Modelling

### Get & Transform

- Using Get & Transform
- Why Use Get & Transform
- Understanding the Navigator Pane
- Creating a New Query from a File
- Creating a New Query from the Web
- Understanding the Query Editor
- Displaying the Query Editor
- Managing Data Columns
- Reducing Data Rows
- Adding A Data Column
- Transforming Data
- Editing Query Steps
- Merging Queries
- Working with Merged Queries
- Saving and Sharing Queries
- The Advanced Editor

### Power Pivot

- Lists, Tables, and Relational Databases
- The Excel Data Model
- Power Pivot and The Data Model
- Understanding Relational Data
- Common Sense Data Modelling
- Enabling Power Pivot
- Connecting to a Data Source
- Working with The Data Model
- Working with Data Model Fields
- Changing A Power Pivot View
- Creating A Data Model PivotTable
- Using Related Power Pivot Fields
- Creating A Calculated Field
- Creating A Concatenated Field
- Formatting Data Model Fields
- Using Calculated Fields
- Creating A Timeline
- Adding Slicers

### Great functions for Analysis

- Understanding Data Lookup Functions
- Data Area
- Calculation Area
- Using CHOOSE
- Using VLOOKUP
- Using VLOOKUP For Exact Matches
- Using HLOOKUP
- Using INDEX

- Using SUMIF
- Using SUMIFS
- Using SUMPRODUCT

### Data Validation

- Validation Criteria
- Input Messages & Error Messages
- Drop-Down Lists Formulas
- Customised Validation Criteria
- Creating a Number Range
- Validation
- Testing a Validation
- Creating an Error Message
- Creating a Drop-Down List
- Using Formulas as Validation Criteria
- Circling Invalid Data
- Removing Invalid Circles

### Controls

- Understanding Types of Controls
- Understanding How Controls Work
- Preparing a Worksheet for Control
- Adding a Combo Box Control
- Changing Control Properties
- Using the Cell Link to Display the Selection
- Adding a List Box Control
- Adding a Scroll Bar Control
- Adding a Spin Button Control
- Adding Option Button Control
- Adding a Group Box Control

# Microsoft Excel- Analysis and Dashboards

Adding a Check Box Control  
Protecting a Worksheet with Controls

## Using Sparklines to show trends

What is a Sparkline?  
Types of Sparklines  
Showing Sparklines only  
Specifying a Date Axis  
Hidden Data and Sparklines  
Sparklines and Targets

## Using Conditional formatting

Using Conditional Formatting with a Dashboard  
Top 10 & Custom Formatting Data Bars Show data bars outside the data cell Colour

Scales icon Sets Creating Rules Based Icon Set Removing unnecessary icons Using Symbols in Reporting Using the Camera Tool

## Pivot Tables

Structure of Pivot Tables  
Using Compound Fields Counting in A Pivot Table  
Formatting PivotTable Values  
Working with Grand Total Working with PivotTable Subtotals  
Finding the Percentage of Total  
Finding the Difference From  
Grouping in PivotTable Reports  
Creating Running Totals Creating Calculated Fields providing Custom Names Creating Calculated Items Pivot Table Options Sorting in a Pivot Table Top and Bottom Views Date Grouping Options  
Hiding or Showing Data Items  
Conditional Formatting and Sparklines in Pivot Tables  
Pivot Caches and File Size

## Pivot Charts

Inserting A Pivot Chart  
Defining the PivotChart Structure  
Changing the PivotChart Type  
Using the PivotChart Filter Field Buttons  
Moving Pivot Charts to Chart Sheets

## Slicers in Reports

What are Slicers?  
Creating Slicers  
Timeline Slicer  
Renaming Pivot Tables  
Using a Slicer on Multiple Pivot Tables

## Trending Charts

Why do we use Trending Charts?  
Appropriate Chart Types for Trending  
Vertical or Y-Axis Scales  
Chart Titles linking to a Cell  
Comparative Trending Labelling  
Using a Secondary Axis  
Formatting Key Data Points How to display Actuals and Forecasts  
Averages and Data Smoothing

## Other Report Charts

Top and Bottom Charts  
How to show Top or Bottom Values in Data Labels  
Waterfall Charts

## Histograms

Creating Histograms using Formulas Creating Histograms using Pivot Tables Creating Histograms using Excel's Statistical Charts

## Charting performance against a target

Performance against Targets  
Creating Thermometer Charts  
Bullet Graph

## Defining Dashboards

Purpose of a Dashboard Working out what is needed What are the data sources  
Will the audience need further data to drill-down to?  
How often will/can the data refresh?  
Does it need to be maintained?  
How easy will it be to maintain?

## Dashboard Design Principles

Thirteen common mistakes in dashboard design

## Making an Interface

Using Macros with Dashboards  
Recording a Macro  
Navigation using Macros Macros to Change Chart types Macros and Pivot Form Controls with Dashboards

## Pulling it all together

Case Study –Build a Dashboard from raw data to finished product.