

Microsoft Excel

Introduction

Demonstrations

and

Exercises

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Demonstration 1 – Entering and Editing Text

Explain and demonstrate to the learners how to enter and edit text as stipulated below.

1. Enter the examples of the data below in the cells identified exactly as shown whilst getting the learners to carry out this task at the same time as you.

Type into cell A1 - Test

Type into cell A2 - 12345

Type into cell A3 - 03/04/2020

2. Explain alignment rules for different types of data.
3. Demonstrate how to move left and right on the worksheet using the **Cursor** keys on the keyboard, getting the learners to carry out this task at the same time as you.
4. Demonstrate how to enter text into different cells in the worksheet using the **Mouse**, getting the learners to carry out this task at the same time as you.
5. Demonstrate, using in-cell editing, how to delete characters to the left of the cursor using the **Backspace** key on the keyboard, and to the right using the **Delete** key, getting the learners to carry out this task at the same time as you.
6. Demonstrate, using the **Formula Bar**, how to edit characters to the left of the cursor using the **Backspace** key on the keyboard, and to the right using the **Delete** key, getting the learners to carry out this task at the same time as you.
7. Using the **Find and Replace** facility, demonstrate how to change the word '**Test**' to '**Temp**', getting the learners to carry out this task at the same time as you.
8. Demonstrate to the learners the use of the **Undo** and **Redo** feature available.

Exercise 1 – Entering and Editing Text

Using the instructions stipulated below, complete the following exercise so that after the completion of the exercise you will have practised all the features of entering and editing data.

1. Enter the following text below exactly as shown in cell **A1** enter the words.

Today I am in an Excel lesson

2. Using the **Cursor** keys and the **Backspace** key delete the words 'in' and replace with the word '**attending**' using the **Formula Bar** method.
3. Using the **Find and Replace** facility, change the word '**lesson**' to the word '**session**' getting the learners to carry out this task also.
4. Using the facility available, **Undo** all the changes you have just made.

Demonstration 2 – Selecting Cells and Cell Ranges

Explain and demonstrate to the learners the different types of selection technique available to use when creating a spreadsheet.

1. Open the data file provided called '**Excel Selection Demo1.xlsx**' and get all the learners to locate and open this file also.
2. Demonstrate how to select cells, ranges of cells, columns, rows including highlighting multiple non-consecutive cells, columns and rows, getting the learners to carry out this task at the same time as you.

Exercise 2 – Selecting Cells and Cell Ranges

Using the instructions stipulated below, complete the following exercise so that after completion of the exercise you will have practised all the available selection techniques.

1. Open the data file provided called '**Excel Selection Ex1.xlsx**' and perform the following selection techniques.
2. Select individual cell **A1** in the spreadsheet.
3. Select individual cell **A1** in the spreadsheet and **B2** all the way across to **H2**.
4. Select **Column A** and **Row 3**.
5. Select all the text in **Rows 3** and **5** only. Do not do this by selecting the entire row.
6. Select the all the data in the whole spreadsheet. Do not do this by selecting the entire worksheet.

Demonstration 3 – Using Formula

Explain and demonstrate to the learners the different types of mathematical expression that can be used in formula, how formula is entered a spreadsheet, and the importance of the **BODMAS / BEDMAS** rule.

1. Open the data file provided called '**Excel Formula Demo1.xlsx**' and get all the learners to locate and open this file also.
2. Demonstrate, using the **Autofill** feature, fill the months of the year across to cell **G2**, getting the learners to carry out this task at the same time as you.
3. Demonstrate, using the **Autofill** feature, fill the **Sales** figure numbers across to cell **G3** using the two numbers present, getting the learners to carry out this task at the same time as you.
4. Explain the 4 different mathematical expressions used in formula (eg **Addition +**, **Subtraction -**, **Multiplication ***, **Division /**).
5. Explain the **BODMAS / BEDMAS** rule.
6. Demonstrate, using formula, how calculate the **Cost** figure at 38% of the **Sales** figure (eg =**B3*38%**), getting the learners to carry out this task at the same time as you.
7. Demonstrate, using the **Autofill** feature, how to fill the **Cost** figure across to cell **G4**, getting the learners to carry out this task at the same time as you.
8. Demonstrate, using formula, how calculate the **Profits** figure by subtracting the **Costs** figure from the **Sales** figure (eg =**B3-B4**), getting the learners to carry out this task at the same time as you.
9. Demonstrate, using the **Autofill** feature, how to fill the **Profit** figure across to cell **G5**, getting the learners to carry out this task at the same time as you.

Exercise 3 – Using Formula

Using the instructions stipulated below, complete the following exercise so that after completion of the exercise you will have practised using a range of formula.

1. Open the data file provided called '**Excel Formula Ex1.xlsx**'.
2. Using the **Autofill** feature, fill the months of the year across to cell **G2**.
3. Using the **Autofill** feature, fill the **Sales** figure numbers across to cell **G3** using the two numbers present.
4. Using formula calculate the **Cost** figure at **25%** of the **Sales** figure.
5. Using the **Autofill** feature, fill the **Cost** figure across to cell **G4**.
6. Using formula, calculate the **Profits** figure by subtracting the **Costs** figure from the **Sales** figure.
7. Using the **Autofill** feature, fill the **Profit** figure across to cell **G5**.

Demonstration 4 – Using Functions

Explain and demonstrate to the learners the different types of function that can be used in an Excel spreadsheet and how they can be used to perform a range of mathematical calculations.

1. Open the data file provided called '**Excel Functions Demo1.xlsx**' and get all the learners to locate and open this file also.
2. Demonstrate, using the **Sum** function in cell **H3** using the **Autosum** button, getting the learners to carry out this task at the same time as you.
3. Demonstrate, using the **Autofill** feature how to fill the **Sum** function down for the cells **H4** and **H5** using the **Sum** function in **H3**, getting the learners to carry out this task at the same time as you.
4. Demonstrate, using the **Average** function in cell **H3** by typing it in manually, how to average the weekly **Sales** figure, getting the learners to carry out this task at the same time as you.
5. Demonstrate, using the **Autofill** feature how to fill the **Average** function down for the cells **H4** and **H5** using the **Average** function in **H3**, getting the learners to carry out this task at the same time as you.

Exercise 4 – Using Functions

Using the instructions stipulated below, complete the following exercise so that after completion of the exercise you will have practised using a range of functions.

1. Open the data file provided called '**Excel Functions Ex1.xlsx**'.
2. Using the **Sum** function in cell **H3** calculate the total **Sales** figure.
3. Using the **Autofill** feature, fill the **Sum** function down for the cells **H4** and **H5** using the **Sum** function in **H3**.
4. Using the **Average** function in cell **H3**, calculate the average **Sales** figure for the week.
5. Using the **Autofill** feature, fill the **Average** function down for the cells **H4** and **H5** using the **Average** function in **H3**.

Demonstration 5 – Cutting, Copying and Pasting

Explain and demonstrate to the learners the various ways in which data can be selected and manipulated, moved or duplicated within a worksheet.

1. Using the data file provided called '**Excel Manipulating Demo1.xlsx**', demonstrate the following data manipulation activities, and get all the learners to locate and open this file also.
2. Demonstrate how to select the spreadsheet, and **Copy** it then **Paste** it back in starting in cell **A8**, getting the learners to carry out this task at the same time as you.
3. Demonstrate how to select the entire spreadsheet, **Copy** it then **Paste** it into the same location on **Sheet2**, getting the learners to carry out this task at the same time as you.
4. Demonstrate how to select the entire spreadsheet, **Cut** it then **Paste** it into the same location on **Sheet3**, getting the learners to carry out this task at the same time as you.

Exercise 5 – Cutting, Copying and Pasting

Using the instructions stipulated below, complete the following exercise so that after completion of the exercise you will have practised using a range of data manipulation techniques.

1. Using the data file provided called '**Excel Manipulating Ex1.xlsx**', practise the following data manipulation activities.
2. Select the spreadsheet, **Copy** and **Paste** it back in starting in cell **A8**.
3. Select the spreadsheet the entire spreadsheet, **Copy** it then **Paste** it into the same location on **Sheet2**.
4. Select the spreadsheet the entire spreadsheet, **Cut** it then **Paste** it into the same location on **Sheet3**.

Demonstration 6 – Formatting Cells and Cell Ranges

Explain and demonstrate to the learners the different worksheet formatting techniques available to use when creating spreadsheets.

1. Using the data file provided called '**Excel Formatting Demo1.xlsx**', format the spreadsheet in the following way getting the learners to carry out this task as well.
2. Demonstrate how to select the heading **Production Sales and Costs Figures** in cell **A1** and change the **Font Size** to 16, change the **Alignment** of the title to **Merge and Centre** the text between cells **A1** to **H1**, change the **Font Colour** to **Blue**, getting the learners to carry out this task at the same time as you.
3. Demonstrate how to select all the numbers, change the **Alignment** to **Centre** and change the **Font** to **Times New Roman**, getting the learners to carry out this task at the same time as you.
4. Demonstrate how to add a **Currency** format to the numbers, getting the learners to carry out this task at the same time as you.
5. Demonstrate how to select the second row and change the text to **Bold** and **Italic**, getting the learners to carry out this task at the same time as you.

Exercise 6 – Formatting Cells and Cell Ranges

Using the instructions stipulated below, complete the following exercise so that after the completion of the exercise you will have practised many of the available formatting techniques that can be applied to a spreadsheet.

1. Using the data file provided called '**Excel Formatting Ex1.xlsx**', format the spreadsheet in the following.
2. Select the heading **Production Sales and Costs Figures** in cell **A1** and change the **Font Size** to 16. Change the **Alignment** of the title to **Merge and Centre** the text between cells **A1** to **H1**, changing the **Font Colour** to **Blue**.
3. Select all the numbers and change the **Alignment** to **Centre** and, change the **Font** to **Times New Roman**.
4. Add a **Currency** format to the numbers.
5. Select the second row and change the text to **Bold** and **Italic**.

Demonstration 7 – Working with Charts

Explain and demonstrate to the learners how to create and format a simple chart from an existing spreadsheet.

1. Using the data file provided called '**Excel Chart Demo1.xlsx**', format the spreadsheet in the following way, getting the learners to carry out this task as well.
2. Demonstrate how to select cells **A2** all the way across to **G5**, getting the learners to carry out this task at the same time as you.
3. Demonstrate how to **Insert** a **3-D Column** chart, getting the learners to carry out this task at the same time as you.
4. Demonstrate how to **Move** and **Resize** the chart, getting the learners to carry out this task at the same time as you.
5. Demonstrate how to add a **Chart Title** and a **Chart Vertical and Horizontal Axis**, getting the learners to carry out this task at the same time as you.
6. Demonstrate how to **Move** the chart to a different worksheet, getting the learners to carry out this task at the same time as you.

Exercise 7 – Working with Charts

Using the instructions stipulated below, complete the following exercise so that after completion of the exercise you will have practised using the charting feature of **Excel**.

1. Using the data file provided called '**Excel Chart Ex1.xlsx**', format the spreadsheet in the following way.
2. Select cells **A2** all the way across to **G5**.
3. **Insert** a **3-D Column** chart, getting the learners to carry out this task at the same time as you.
4. **Move** and **Resize** the chart.
5. Add a **Chart Title** and a **Chart Vertical and Horizontal Axis**.
6. **Move** the chart to a different worksheet.

Consolidation Exercise – Spreadsheets

Using the instructions stipulated below, complete the following exercise so that after completion of the exercise you will have will have practised creating a simple spreadsheet in **Excel** using basic formula and functions.

1. Using the data file provided called '**Excel Consolidation Ex1.xlsx**', format the spreadsheet in the following way.
2. In cell **D3**, using a simple formula, calculate the total cost of the **Potatoes**.
3. Autofill the formula down to cell **D7**.
4. In cell **E3**, use the **Sum** function to add up the total weight of all the items in the shopping list.
5. In cell **F3**, use the **Sum** function to add up the total cost of all the items in the shopping list.
6. Format the spreadsheet as shown below.

| Shopping List | | | | | |
|-----------------|-------|--------|-------|--------------|-------------|
| | Price | Weight | Total | Total Weight | Total Money |
| Potatoes | £0.23 | 10 | £2.30 | 20 | £6.34 |
| Carrots | £0.27 | 2 | £0.54 | | |
| Onions | £0.25 | 2 | £0.50 | | |
| Apples | £0.45 | 3 | £1.35 | | |
| Pears | £0.55 | 3 | £1.65 | | |