



datatalks

Objective Domain 1

Manage Worksheets and Workbooks

Objective Domain 1.1: Import Data into Workbooks

1. Open a new blank Excel workbook. Import the data from the comma delimited text file named HelpLess Details. This file has headers. Save the workbook as HelpLess Details.
2. Open a new blank Excel workbook. Import the data from the tab delimited text file named Staff Details. This file does not have headers. Save the workbook as Staff Details.
3. Open the HelpLess Airlines Marketing Plan 2017 – 2022 workbook. Import the csv file named Projects.csv into a Table in the Marketing Plan Budget worksheet, starting at cell A14. Add the data to the Data Model for the workbook.
4. Import the csv file named Customers.csv into a new worksheet in the HelpLess Airlines Marketing Plan 2017 – 2022 workbook. Do not add this data to the Data Model.

Objective Domain 1.2: Navigate within Workbooks

1. In the **Profit Forecast** worksheet of the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook, use the Find & Select tool to find the one cell which has Conditional formatting applied to it.
2. In the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook, add a Hyperlink to the title **Marketing Budget 2017 to 2022** in cell A1 of the **Marketing Plan Budget** worksheet that links to www.ryanair.com. Display the text 'HelpLess Gets You There!'
3. Open the **HelpLess Airlines Flight Details** workbook and find the two cells in the **Flights** worksheet which have comments. Delete the comments.
4. In the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook and, in the **Maintenance Schedule** worksheet, find all cells which have data validation applied. Make a note of which cells have the validation.
5. In the **HelpLess Airlines Marketing Plan 2017 to 2022**, in the **Maintenance Schedule** worksheet, create a Hyperlink in the cell B12 that links to cell A3 of the worksheet named **Marketing Plan Budget**.
6. In the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook, in the **Maintenance Schedule** worksheet, use the Go To Special tool to find all comments. Delete the comments.
7. In the **HelpLess Airlines Flight Details** workbook, in the **Flights** worksheet, remove the Hyperlink attached to the title in cell A1.
8. In the **HelpLess Airlines Flight Details** workbook, in the **Flights** worksheet in cell A1, create a Hyperlink that creates a new document called HelpLess Flight Tracker and specify that you want to edit the new document later.
9. In the **HelpLess Airlines Flight Details** workbook, link the text entitled **Budget Plan** to the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook.
10. In the **Marketing Plan Budget** worksheet of the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook, apply a Hyperlink to the text 'Contact us by email', with the email address info@ryanair.com and the subject Contact HelpLess.
11. Using the Ribbon, search the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook for the **first** occurrence of the word Advertising and replace Advertising with the word Adverts.

Objective Domain 1.3: Format Sheets and Workbooks

1. Change the margins of the **Marketing Plan Budget** worksheet in the **HelpLess Airlines Marketing Plan 2017 to 2022** to the Wide setting.
2. In the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook, in the **Maintenance Schedule** worksheet, add a header as follows: **Current Date** into the left header field and the **Page Number** into the right header field. Add the **Sheet Name** to the left footer section.
3. Set the margins in the **Maintenance Schedule** worksheet in the **HelpLess Airlines Marketing Plan 2017 to 2022** as follows: Top and Bottom to 5 centimetres and Left and Right to 2.5 centimetres.
4. Change the page size of the **HelpLess Airlines Flight Details** workbook, **Flights** worksheet, to A4.
5. On the **HelpLess Airlines Flight Details** workbook, **Flights** worksheet, add the filename to the right hand section of the footer.
6. Change the page orientation of the **HelpLess Airlines Flight Details** workbook, **Flights** worksheet to Landscape.
7. In the **Flights** worksheet of the **HelpLess Airlines Flight Details** workbook, add a column between the **Destination Airport** and the **Flight #** columns.
8. Use the Ribbon to apply the AutoFit Column Width to the **Maintenance Schedule** worksheet in the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook.

Objective Domain 1.4: Customise Options and Views

1. Open the **Marketing Plan Budget** worksheet in the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook and change the view to Split.
2. Freeze the first column of the **Profit Forecast** worksheet in the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook
3. Unhide any hidden rows in the **Flights** worksheet in the **HelpLess Airlines Flight Details** workbook.
4. Change the options on the **Flights** worksheet of the **HelpLess Airlines Flight Details** workbook so that Gridlines are hidden.
5. Change the view of the Flights worksheet of the HelpLess Airlines Flight Details workbook to Page Layout view.
6. Hide Column A of the Flights worksheet of the HelpLess Airlines Flight Details workbook.
7. Change the Excel options so that Formulas do not enable background error checking.
8. Change the Excel options for Save AutoRecover Information to every 5 minutes.
9. Change the View back to Normal. Freeze the top row of the Flights worksheet of the HelpLess Airlines Flight Details workbook.
10. In the Marketing Plan Budget worksheet in the HelpLess Airlines Marketing Plan 2017 to 2022 workbook, change the Workbook View to Page Break Preview
11. Unhide Column A of the Flights worksheet of the HelpLess Airlines Flight Details workbook.
12. In the Marketing Plan Budget worksheet, create a custom view named MyView that displays in Page Layout View and has a custom zoom of 135%.
13. Hide Rows 5 to 7 in the Marketing Plan Budget worksheet of the HelpLess Airlines Marketing Plan 2017 to 2022 workbook.
14. Split the Marketing Plan Budget worksheet at cell B4 into four panes.
15. Remove the split that was just created.
16. Freeze the top row of the Flights worksheet of the HelpLess Airlines Flight Details workbook.
17. Modify the document properties of the HelpLess Airlines Marketing Plan 2017 to 2022 workbook. Use DM Marketing Plan as the Title, make the category Plan and add a tag Budget.

Objective Domain 1.5: Configure Content for Collaboration

1. Open the **Marketing Plan Budget** worksheet in the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook and save the entire workbook as a PDF file named Complete Marketing Plan. (Make sure that all of the worksheets are visible in the PDF)
2. In the **Marketing Plan Budget** worksheet, set the print settings to repeat row 3 at the top.
3. Inspect the **Marketing Plan Budget** worksheet for Headers and Footers, Document Properties and Personal Information, and Comments and Annotations. Remove any of the Document Properties and Personal Information properties that are found.
4. Set a print area in the **Marketing Plan Budget** worksheet for cells B3 to F11.
5. Save the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook as a comma delimited text file (CSV). Accept any loss of features which may be warned about.
6. Remove all comments, annotations, personal information and document properties from the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook.
7. Clear the Print Area.
8. Make sure that row and column headings and gridlines are displayed when you want to print the **Marketing Plan Budget** worksheet.
9. Change the view of the Flights worksheet of the HelpLess Airlines Flight Details workbook to Page Layout view.

Objective Domain 2

Manage Data Cells and Ranges

Objective Domain 2.1: Manipulate Data in Worksheets

1. Open the **Monthly Revenue** Workbook and, in the **2017 Monthly Revenue** worksheet, select cell B3. Use Autofill to complete the series of months from January to December. Widen the column so that all the information can be viewed.
2. Add the title January to cell E2. Embolden the title.
3. Autofill E2 so that the months from February to December appear in the cells from F2 to P2. Widen the columns if necessary to display the information fully.
4. Autofill the formula in Q3 to cells Q4 to Q14.
5. AutoFill the formula in E15 to cells F15 to Q15. Widen the columns to ensure that the data are fully visible.
6. Copy the information from E15 to P15 into the clipboard.
7. Use Paste Special to paste only the **Values** in the clipboard and to **Transpose** them starting at cell C3.
8. Put the title Monthly Revenue by Airport 2017 into cell E1.
9. Merge and Centre the title in E1 over the cell range from E1 to O1.
10. Change the Font of the title in E1 to Calibri Size 16 and Bold.
11. Use AutoFill to copy the Sparkline in cell R3 to the cell range R4 to R14.
12. Copy the contents of cell E1 and paste only the formatting to cell A1.
13. Find and replace every occurrence of the word Padua with Padstock.
14. Cut the cells from R2 to R14 (the Sparklines) and insert the cut cells at cell D2.
15. Copy the data from E1 to R14 and paste it into A1 of the **Revenue Summary** worksheet.

Objective Domain 2.2: Format Cells and Ranges

1. Open the **Completed Monthly Revenue** workbook. In the **2017 Monthly Revenue** worksheet, select the cell range from E3 to P15. Format the selection so that the data formatted as Currency and are centred aligned.
2. Enter the heading **HelpLess Airlines Monthly Revenue 2017** into cell E1.
3. Merge and centre the heading in cell E1 across the cells E1 to P1. Apply the Title style to the heading.
4. Modify the Title style so that font is Calibri, the font colour is standard red, the text is Bold and point size 22.
5. Change the text in C2 to Percentage Contribution. Wrap the text in cell C2 and ensure that it is fully visible.
6. Apply the style 60% accent 6 to the cell range E15 to P15.
7. Left align the information in the cell range E15 to P15 and then Indent twice.
8. AutoFill B3 to create a monthly series in cells B4 to B14.
9. Angle Counter clockwise the data in cells B3 to B14.
10. Create a new style named MyNumbers which should be Calibri Size 8 Bold with a fill colour of Blue, Accent 1, Lighter 40%.
11. Apply the MyNumbers style to the cell range E3 to P14.
12. Use the Format Painter to apply the style in cell C3 to the ranges E15 to P15 and Q3 to Q14.

Objective Domains

2.3: Define and Reference Named Ranges and

2.4: Summarise Data Visually

1. Open the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook. In the **Marketing Plan Budget** worksheet select the cell range B4 to G10. Apply conditional formatting to this range by specifying that if the data is between 9,000 and 17000, then the cells should be highlighted in Yellow.
2. Apply conditional formatting of Red Data Bar Solid Fill to the cell range B4 to G10.
3. Using Conditional formatting, for the cell range from A3 to A10, highlight in Green any cell which contains the text 'Advert'.
4. Clear all Conditional Formatting rules.
5. Select the cell range from B4 to G10. Using conditional formatting rules apply a Yellow Fill to cells where the data is greater than 40,000. And apply a Blue fill if the data are less than 10000.
6. Create a named range called Marketing_Budget using the cells from A3 to G10.
7. Rename Table3 as Profits.
8. In the Profit Forecast worksheet, in cell H4, create a Line Sparkline using the data from B4 to G4. AutoFill the Sparkline from H5 to H11.
9. Modify the line Sparkline so that it is a Column Sparkline.

Objective 3: Manage Tables and Table Data

Objective Domains

3.1: Create and Format Tables and

3.2: Modify Tables

1. Open the **HelpLess Airlines Flight Details OD3** workbook. Unhide any hidden rows. Convert the data in cells A1 to C43 into a Table.
2. Name the table just created as HelpLessFlights.
3. Apply the Table Style Medium 14 to the HelpLessFlights table.
4. Remove the Banded Rows option and apply the Banded Columns option.
5. Remove the Filter button.
6. Convert the table back to a normal range.
7. Convert the range to a table and name the table as Flights.
8. Turn on the Total Row.
9. Apply the Average function to the Flight# data in the Total Row.
10. Insert a new table column to the right of the table.
11. Create a new table style called Practice. Modify the fill colour of the header row to Blue.
12. Apply the Practice style to the table.

Objective Domain 3.3: Filter and Sort Tables

1. Open the **HelpLess Airlines Flight Details** workbook and select the data from cell A1 to C43. Unhide any hidden rows. Sort the data by Destination in descending order of value. Add a second level of sorting using the Flight number in ascending order.
2. Filter the data so that only records relating to Bogota as the Destination are displayed.
3. Clear all filters.
4. Filter the data so that only those records where the Flight# is between 40 and 2000 are displayed.
5. Add an additional filter to only show records which meet the criteria set at point 4 but which also have a Departure Airport name containing the text 'on'.
6. Clear all filters.
7. Filter the data to show only those records where the Destination contains the text 'sal' and the Flight# cell colour is in a banded blue row.
8. Clear all filters.
9. Sort the data alphabetically ascending on the Destination field.
10. Filter the data to display only those destinations where the Destination contains the text 'City' or contains the text 'San'.
11. Clear the filter applied at step 11.

Objective Domain 4: Perform Operations by Using Formulas and Functions

Objective Domain

4.1: Insert References and

4.2: Calculate and Transform Data

1. Open the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook. In the **Marketing Plan Budget** worksheet, name the cell range from G4 to G11 as Profit22. Name the cell range from B4 to B11 as Profit17.
2. In the **Marketing Plan Budget** worksheet, in cell H4, create a formula which calculates the difference between Profit22 and Profit17. Autofill the formula to the cell range H5 to H11.
3. In cell I14 of the **Marketing Plan Budget** worksheet, put the words, Maximum Profit. In cell J14 of the same worksheet, enter a formula which provides the Maximum Profit figure for the period from 2017 to 2022, which is available from the cell range B11 to G11 in the **Profit Forecast** worksheet.
4. In the **Maintenance Schedule** worksheet, create a formula in cell N3 which counts the number of scheduled maintenance required for the Boeing 747 aircraft from January to December. In cell O3, count the number of months where no maintain has been scheduled between January and December. Ensure that the other aircraft types have the same data calculated.
5. Open the **HelpLess Airlines Flight Details OD4** workbook. In cell E100, use AutoSum to sum the number of passengers in the cell range E2 to E99.
6. In cell E101, use the Count function to count the number of cells in the range E2 to E99 which have data in them.
7. In cell E102, create a formula to obtain the average number of passengers in the range E2 to E99.
8. Open the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook. In the **Profit Forecast** worksheet, in cell I3, insert a reference to cell G11 in the **Marketing Plan Budget** worksheet. Format the result as Euro.
9. In the **Profit Forecast** worksheet, insert a formula in cell H4 to calculate the average of the values in the range B4 to G4. AutoFill the formula to H5 to H11.
10. In cell I4 of the **Profit Forecast** worksheet, insert a formula to calculate the sum of the values from B4 to G4. AutoFill the formula to I5 to I11.

11. In cell J4 of the **Profit Forecast** worksheet, create a formula which calculates the percentage contribution of the 2017 profit figure to the total profit from 2017 to 2022. Format the result as a percentage.
12. Open the **HelpLess Airlines Flight Details OD4** workbook. In the cell range F2 to F99, create IF statements that check the value in the cell range from B2 to B99. If the Flight Number is greater than 2000, display the text After Midnight, otherwise display Early Flight.
13. In the **HelpLess Airlines Flights** workbook, in the cell range G2 to G99, create a formula using an IF function which checks the value of the Departure Airport name. If the Departure Airport name begins with a letter equal or greater than F, put 1 as the result, otherwise put 0 as the result.

Objective Domain 4.3: Format and Modify Text

1. Open the **Staff Records** workbook. In cell H2 use an appropriate formula to generate the upper case version of the First Name of a staff member. AutoFill for other staff members.
2. In cell I2 use an appropriate formula to generate the upper case version Surname name of a staff member. AutoFill for other staff members.
3. In cell J2 use an appropriate formula to retrieve the Upper Case first character of the staff members First Name. AutoFill for other staff members.
4. In cell K2 use an appropriate formula to retrieve the Upper Case last two characters of the staff members Surname. AutoFill for other staff members.
5. Create a unique Staff Code in cell L2 using the CONCAT, Upper, Left and Right functions comprising the following:
 - * First letter of the First Name
 - * Last two letters of the Surname
 - * Date of Joining (Note that this will be shown as a 5-character number)
 - * The code must all be in Uppercase.
 An example would be DHY19755 in the case of Dave Murphy
 AutoFill for the other staff members.
6. In cell M2, construct a formula using the TEXTJOIN() function to produce the following:
 - * Upper case version of the staff member's First name and Surname separated by a forward slash, then the Date of Joining, a forward slash, Promotion.
 AutoFill for the other staff members.
7. In cell N2 construct a formula using the CONCAT function to link the upper case version of the First Name and Surname, separated by a space, followed by the words " is an ", then the Punctuality, followed by the staff members position.
 An example of the result would be DAVE MURPHY is an Excellent Pilot
 AutoFill for the other staff members.
8. In cell O2, use the Mid function to extract three characters form the Position field, starting at the second character. AutoFill for the other staff members.

Objective Domain 5: Manage Charts

Objective Domain 5.1: Create Charts

1. Open the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook. In the Marketing Plan Budget worksheet, create a 2D **Clustered Column** chart using the data in the range A3 to G10.
2. Position the chart below the data.
3. Change the Chart Title to **Marketing Plan**.
4. Change the data range for the chart to **B3 to G11**.
5. Using the data ranges from **A3 to A11** and from **G3 to G11**, insert a 3D Pie Chart which shows the budget for each marketing category in 2022.
6. Position the Pie Chart to the right of the data.
7. Change the title of the Pie Chart to Budget 2022.
8. Add Data Labels showing the amount of money budgeted in each of the Pie Chart segments.
9. Format the chart area to have a gradient fill using Orange, Accent 2, Lighter 60%.
10. Move the Pie Chart to a new Chart Sheet named 2022 Budget.

Objective Domain 5.2 and 5.3 Modify and Format Charts

1. Open the **Completed Monthly Revenue** workbook. In the **2017 Monthly Revenue** worksheet. AutoFill the formula in Q3 from Q4 to Q 14.
2. Using the data in D2 to D14 and Q2 to Q14 create a 3D Pie Chart and position it beneath the data.
3. Apply Chart style 6 to the Pie Chart.
4. Change the title to **Airport Totals for 2017**
5. Format the **Legend only** with a Green Accent 6 Gradient Fill
6. Format the Airport total data series, Heathrow Data Point, to have a point explosion of 30%
7. Add Data Labels using the Data Callout format option.
8. Move the Pie Chart to a new worksheet named **2017 Totals**
9. Open the **HelpLess Airlines Marketing Plan 2017 to 2022** workbook. In the Profit Forecast worksheet, add the Alt Text 'This is a graph of the profit forecast from 2017 to 2022.
10. Apply Style 14 to the chart.
11. Add data labels in data callout format.
12. Apply a gradient fill of Bottom Spotlight Accent 4 to the chart.
13. Switch the data between the rows and columns.
14. Place the legend on the right.
15. Put a Y Axis title of Profit Forecast Amount onto the chart.
16. Move the chart into its ownsheet.



MO-200 Excel 365/2019 Exercises