Dessert Shop Analysis Instructions



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# 1. Dataset

Download and open the **Dessert\_dataset.csv** file in Excel.

# 2. Formatting

* **Format the Worksheet as a Table**
  + Click and Drag to select all the cells containing data.
  + Go to Home Tab.
  + In the Styles Group, click the down arrow to the right of **Format as a Table** and choose any style you like. Confirm that “*My table has headers*” is checked.

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* + Click OK.
* **Fit the Width of Columns to the Contents**
  + Still in the home tab, click on the down arrow to the right of Format in the Cells group and select **Autofit Column Width** from the Cells Section.

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* **Set Datatypes**
  + Hold down **CTRL** and click on the **Price per Unit** and **Total Revenue** columns
  + Under the Home tab, change the datatype in the Number group from General to **Currency** format by clicking on the down arrow to the right of General and choosing Currency.

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* Use **conditional** **formatting** to highlight Customer Rating cells with a rating of 4.5 and above in green.
  + In the Home tab, click on the down arrow to the right of Conditional Formatting in the Styles Group.
  + Select New Rule > Format only cells that contain
  + Under “Edit the Rule Description: **Format Only Cells With**:” select cell value greater than or equal to 4.5.

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* + Click on Format at the bottom right of the dialog box and choose green and then OK.

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# 3. Calculating Total Revenue and Profitability

* **Calculate Total Revenue** in column F using the formula =D2\*E2 and drag down to apply to all rows.
* **Determine profitability**: For the shop to remain profitable, each dessert must generate at least £300 in revenue. In a new column Profitable, use a formula to mark each dessert as "Yes" or "No" based on this criterion. *Hint: You can go to* ***Formulas > Logical > IF*** *wizard to enter this formula as shown below…*

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# 4. Functions and Formulas

* In a new cell to the right or below your table, **calculate the number of desserts** that are rated above 4.5. Use the COUNTIFS function to determine the number. =COUNTIFS([CUSTOMER RATING], ">4.5")

# 5. Macros

* **Record a macro** named RevenueifSoldRemainingInventory:
  + Start recording macro.
  + Make a new column called **Revenue if Sold Remaining Inventory.**

**Entering formula** **=[@[Inventory Remaining]]\*[@[Price per Unit]]+[@[Total Revenue]]**

* + - Select first cell of new column.
    - Type = .
    - Select first cell from Inventory Remaining
    - Type \*.
    - Select first cell from Price per Unit column.
    - Type +.
    - Select first cell from Total Revenue column and press enter.
    - Stop Recording.
* **Run this macro on the second dessert dataset** after carrying out the earlier steps on the second dataset (if the columns don’t match up then macro won’t work).

# 6. Data Visualisation Using Charts and Graphs

* Create a **bar chart** showing Total Revenue by Dessert Name.
* Create a **line chart** to display the trend in Customer Ratings across different Dessert Categories.

# 7. Filters and Custom Sort

* **Apply a filter** to the data range.
* **Sort the data** by Category in alphabetical order and then by Total Revenue in descending order.

# 8. What-If Analysis (Desktop only)

* Use **Goal Seek** to determine the necessary Units Sold for "Cheesecake" to reach a Total Revenue of £600.

# 9. Security

* **Protect the worksheet** with a password (Dessert2024) to prevent editing of the Price per Unit and Total Revenue columns.

# 10. Lookup Function

* In a new sheet, use a **VLOOKUP** function to find the Price per Unit for a dessert when its name is entered in a separate cell.

# 11. Pivot Table

* Create a **Pivot Table** to summarise total revenue by Category and Customer Rating.
* Place the Pivot Table in a new worksheet and format it for readability.

# 12. SWITCH Function

* Add a new column Dessert Type next to Category.
* Use the **SWITCH function** to categorise the desserts into:
  + "Cakes" and "Pies" as "Baked Goods"
  + "Muffins" and "Brownies" as "Small Bites"
  + "Pastries" as "Pastry"
  + Default to "Other" for any other categories