OPMT7750

ASSIGNMENT 3

The following assignment assumes you have worked through Chapters 1-4 in the textbook.

Open a blank Excel workbook and use the **Get & Transform** function to import the data for **Assignment 3**. You will download two files

- Assignment 3.zip
- Assignment 3 – Conversion Table.xlsx

The data provided is for a fictitious superstore. Items are listed by location and are sold online or in-store. Items are discounted if purchases are made by team members or corporate customers.

SALES

Field	Description
City	Location of store
Region	The geographic location of the city
Item Type	Classification of item
Sales Channel	In-Store or Online
Discount	Type of Discount
Order Date	Date of Order
OrderID	Unique identifier of the sales transaction
Units Sold	Quantity of items sold
Unit Price	Price of item sold
Unit Cost	Cost of item sold

CONVERSION TABLE

Field	Description
Source	Field name found in the file
Target	Field name to replace the source

POWER QUERY STEPS

STEP ONE – Create a new Excel workbook

- Save your workbook as **A### Assignment 3**, where ### is your student ID.

STEP TWO – Create the Conversion Table Query

- Get data from the **Assignment 3 – Conversion Table.xlsx** workbook
- Load the data as a **Connection Only**
- Do NOT add the data to the data model
- Ensure your query is named **Conversion Table**

STEP THREE – Create the Sales Query

- Unzip Assignment 3.zip (you will end up with an **Assignment 3** folder containing four files)
- Get data > From Folder > from the **Assignment 3** folder
- Use the technique in **Exercise 4-4** in the textbook to combine the four files and normalize the column headings using the Conversion Table query. You will need to allow for differences in the file and field names.
- Change the **Order Date** and **Payment Date** fields type to Date
- Referencing the **Order Date** field, add a new column with the Year > rename the new column to **Year**
- Format the **Unit Cost** and **Unit Price** fields as Currency
- Change the **Units Sold** field to Whole Number
- Create a new column named **Payment Days** by subtracting **Order Date** from **Payment Date** and formatting it as **Duration in Days**
- Add a new Conditional Column called **Discount Rate** that returns the following based on the Discount column values. Ensure your new field is formatted appropriately.
    - **None = 0%**
    - **Team = 10%**
    - **Corporate = 15%**
- Add a **Total Sales** column by multiplying **Units Sold** x **Unit Price**
- Add a **Total Cost** column by multiplying **Units Sold** x **Unit Cost**
- Add a **Total Sales After Disc** column by applying the **Discount Rate** to the **Total Sales**
- Add a **Total Profit** column by subtracting **Total Cost** from **Total Sales After Disc**
- Remove Source file column
- Ensure all fields types are formatted appropriately
- Load the query as a **Connection Only**
- Add the data to the data model
- Ensure your query is named **Sales**

ASSIGNMENT QUESTIONS

Point values are in [brackets].

1. How many rows are in the Sales query? [1]
2. How many columns are in the Sales query? [1]
3. On Sheet1 of your workbook, create a pivot table that shows the total Orders by Year by Region. Your pivot table should have the following characteristics [2]
    - Show Region in row, Year in column
    - Rename your value field to Total Orders
    - Remove field headers
    - Rename your pivot table to Orders
4. Referencing this pivot table, how many orders happened in the LowerMainland in 2020? [1]
5. Continuing in Sheet1 of your workbook, create a pivot table that shows Average, Maximum, and Minimum Payment Days by Sales Channel. Your pivot table should have the following characteristics [2]
    - Sales Channel as row
    - Three columns (Avg Days, Max Days, Min Days)
    - Values formatted to zero decimal places
    - Remove field headers
6. Which Sales Channel had the smallest number of Payment Days? [1]
7. Continuing in Sheet1 of your workbook, create a pivot table that shows the Total Sales by Region and City . Your pivot table should have the following characteristics [3]
    - Region, then City, as row
    - Value formatted as currency with zero decimal places
    - Show subtotals at top of group
    - Apply conditional formatting to all cells showing Sum of Total Sales values by City > highlight the highest Total Sales value with (Green Fill & Dark Green Text)
    - Remove field headers
    - Remove +/- buttons
8. Which Region contains the City with the highest Total Sales? [1]
9. Continuing in Sheet1 of your workbook, create a pivot table that shows Total Profit for the Island by Year and Sales Channel. Your pivot table should have the following characteristics [2]
    - Filter on Region
    - Year as row, Sales Channel as column
    - Show values as a percent of Grand Total
    - Format values to one decimal place
10. What percent of profit comes from Online sales? [1]
11. Continuing in Sheet1 of your workbook, create a pivot table that shows the Sum of Units Sold by Item Type. Your pivot table should have the following characteristics [2]
    - Rename the value field to Qty
    - Sort the values in descending order
    - Remove field headers
    - Apply conditional formatting to all cells showing Qty values by Item Type > use green Data Bars
12. What is the quantity of Fruits sold? [1]

INSTRUCTIONS:

For your assignment to be graded, you must do both of these steps:

1. Upload your Assignment 3 Excel file to the Learning Hub Assignment 3 folder
2. Complete the Assignment 3 Quiz in the Learning Hub