

Practice Assignment – Power BI

Instructions:

The following exercise assumes you have worked through Chapters 1-6 in the textbook and viewed the Intro to PowerBI lecture.

For this assignment, you will use one file provided: **Power BI Practice Data.xlsx**

This assignment will test your ability to load data to the Excel Data model, shape your data, import your data model, and build visualizations in Power BI reports and dashboards.

STEP ONE Create a new Excel file and load workbook data into Power Query

- Use Get Data > From File > From Workbook to load data from the file provided
- Load each worksheet as a separate query

STEP TWO Format your data

- Review all fields in each query to ensure the data type is appropriate & apply changes where necessary.

STEP THREE Perform additional shaping steps

- Add the following columns to the appropriate FACT table:
 - *Unit Profit*
 - *Total Sales*
 - *Total Cost*
 - *Total Profit*

STEP FOUR Load all queries as connections only, adding them all to the data model

- You will have five tables in total

STEP FIVE Import your data model into Power BI Desktop

- Dismiss the welcome start up screen
- Select File > Import > Power Query, Power Pivot, Power View
- Select your newly created Excel file (that holds your data model)

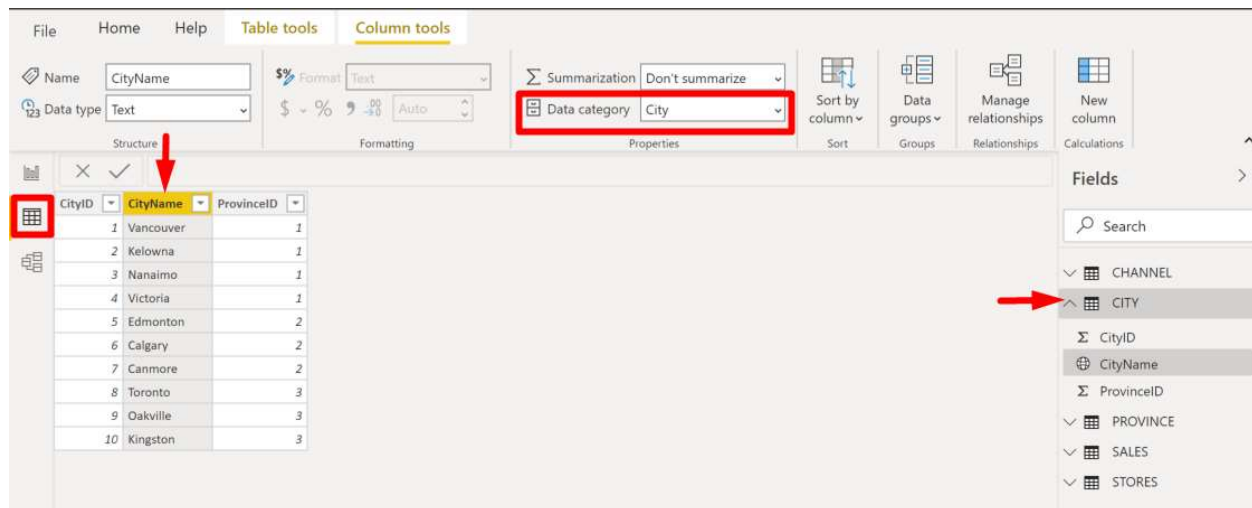
STEP SIX Create relationships between your data tables

- Think carefully about the joining fields in these tables; what are the common KEY fields?

STEP SEVEN Format your geolocation fields

- In the data view select the City table
- Select the CityName column
- Change the Data category (in the Column tools ribbon) to City
- Repeat these steps for Province, selecting Province / State

Example:



STEP EIGHT Rename your report page Overall and add the following visuals, arranging them in an appropriate and effective way

1. A CARD showing Sum of Total Sales
2. A MAP showing Sum of Total Sales by City
3. A TABLE showing Count of StoreID by Province
4. A TREEMAP showing Qty by Item
5. A STACKED BAR CHART showing Qty Sold by SalesChannel
6. A LINE CHART showing Total Sales by Day

STEP NINE Using the Overall page, create a new page for each Province

- Apply a page level filter Using ProvinceName as required

STEP TEN Add a new page and add the Q&A VISUALIZATION

STEP ELEVEN Use Q&A to answer the following questions

1. What is the total number of item BURGER 3 sold in Victoria?
2. What is the burger with the highest total sales?
3. What city has the lowest average item profit?
4. What is the value of the profit in November 2020?
5. How many stores are in Vancouver?
6. What sales channel (by name) has the highest average price?
7. What is the average item price in Q3 in Edmonton?
8. How many cities have stores?
9. What month had the highest total profit?
10. How many burgers were sold in Kelowna in October 2020?