January *2025*

*Pizza Place Sales Process*

Step 1: Open Power BI.

Step 2: Select ‘Blank Report’.

Step 3: Select ‘Transform Data’ to access Power Query.

Step 4: File 🡪 Options & Settings 🡪 Options 🡪 Data Load – Deselect ‘Type Detection’.

Step 5: From ‘New Source’, bring in the Excel workbook and CSV files saved in the hard drive.

Step 6: Peruse the data tables in part to determine relationships (primary and foreign keys).

**pizza\_types (Dim\_Pizza\_Types)**

Primary key: pizza\_id

**Dim\_Date**

Primary key: date

**Pizzas (Fact\_Pizzas)**

Foreign key: pizza\_type\_id

**Pizzas (Fact\_Pizzas)**

Primary key: pizza\_id

**order\_details (Dim\_Order\_Details)**

Foreign key: pizza\_id

**orders (Dim\_Orders)**

Foreign key: date

**order\_details (Dim\_Order\_Details)**

Foreign key: order\_id

**orders (Dim\_Orders)**

Primary key: order\_id

Step 7: Rename tables.

Step 8: Create a date dimension table.

Step 8a: Reference the table ‘orders’ (Dim\_Orders) to create Dim\_Date.

Step 8b: Choose the ‘date” column and remove all other columns.

Step 8c: Change the data type to date.

Step 8d: Ensure the correct start and end dates of the dataset.

Step 8e: View 🡪 Advanced Editor – replace M code with pre-configured M code to expand date fields (see the end of this document for the pre-configured M code).

Step 8f: Sort ‘date’ ascending.

Step 8g: Remove duplicates.

Step 8h: Filter out null values.

Step 9: **Data Cleaning** - Clean the data (tables) in the following order: Dim\_Orders, Dim\_Order\_Details, Fact\_Pizzas, Dim\_Pizza\_Types. Cleaning and transforming is recorded in ‘Applied Step’ in Power Query.

Step 10: **Data Exploration** – Provide answers and insight into real world prompts.

What days are the busiest?

What times are the busiest?

How many pizzas are made during peak periods?

What are the best and worst selling pizzas?

What is the average order value?

How many doughballs are required?

How many ingredient serves are required?

let

StartDate = #date(2015,01,01),

EndDate = #date(2015,12,31),

Source = {Number.From(StartDate)..Number.From(EndDate)},

#"Converted to Table" = Table.FromList(Source, Splitter.SplitByNothing(), null, null, ExtraValues.Error),

#"Renamed Columns" = Table.RenameColumns(#"Converted to Table",{{"Column1", "Date"}}),

#"Changed Type" = Table.TransformColumnTypes(#"Renamed Columns",{{"Date", type date}}),

#"Inserted Year" = Table.AddColumn(#"Changed Type", "Year", each Date.Year([Date]), Int64.Type),

#"Inserted Quarter" = Table.AddColumn(#"Inserted Year", "Quarter", each Date.QuarterOfYear([Date]), Int64.Type),

#"Added QuarterID" = Table.AddColumn(#"Inserted Quarter", "QuarterID", each Text.From([Year]) & "Q" & Text.From([Quarter]), type text),

#"Inserted Month" = Table.AddColumn(#"Added QuarterID", "MonthNum", each Date.Month([Date]), Int64.Type),

#"Added MonthID" = Table.AddColumn(#"Inserted Month", "MonthID", each Text.From([Year]) & Text.PadStart(Text.From([MonthNum]), 2, "0"), type text),

#"Inserted MonthName" = Table.AddColumn(#"Added MonthID", "MonthName", each Text.Start(Date.MonthName([Date]), 3), type text),

#"Inserted DayOfMonth" = Table.AddColumn(#"Inserted MonthName", "DayOfMonth", each Date.Day([Date]), Int64.Type),

#"Inserted DayOfWeek" = Table.AddColumn(#"Inserted DayOfMonth", "DayofWeek", each Date.DayOfWeek([Date]), Int64.Type),

#"Inserted DayName" = Table.AddColumn(#"Inserted DayOfWeek", "DayName", each Date.DayOfWeekName([Date]), type text)

in

#"Inserted DayName