

Coffee Shop Sales Data Analysis

Analyzing transaction records from a fictitious coffee shop in New York City using Microsoft Excel

Objective 1: Prepare the data for analysis

Your first objective is to explore the coffee shop dataset, conduct some basic data QA and profiling, and add calculated date and time fields to prepare the data for analysis.

- Take a moment to familiarize yourself with the data. How many transactions were recorded, over what period of time? What products and product categories were sold?
- Add a new column to calculate Revenue (price * quantity)
- Add new columns to calculate Month and Day of Week based on the transaction date (BONUS: display them as text (ie “Jan”, “Feb”, “Sun”, “Mon”), instead of numerical values)
- Add a new column to extract the Hour from the transaction time

Objective 2: Explore the data with Pivot Tables

Your second objective is to slice and dice the coffee shop data with Excel Pivot Tables and create views to analyze time series and product-level trends.

- Insert a PivotTable on a new tab to show revenue by month
- Add two more PivotTables (on the same sheet) to show the number of transactions by day of the week and by hour of the day
- Add a PivotTable (on the same sheet) to show the number of transactions by product category, sorted descending by transactions
- Add a PivotTable (on the same sheet) to show the number of transactions and revenue by product type, sorted descending and filtered to the Top 15 (by transactions)

Objective 3: Build a dynamic dashboard

Your final objective is to visualize the data with Pivot Charts, design an interactive dashboard, and identify insights and recommendations for the coffee shop.

- Add Pivot Charts to show revenue by month as a line chart, transactions by day of week and hour of day as column charts, and transactions by product category as a bar chart

- Assemble the charts into a rough dashboard layout, and include space for the PivotTable showing Top 15 product types (you can design your own layout, or follow the solution)
- Add a slicer for store location, and connect it to all of the PivotTables on the sheet
- Adjust formatting, alignment and polish to finalize the dashboard (TIP: hide the raw PivotTables and remove the worksheet gridlines)
- Do you notice any interesting patterns or trends? What recommendations might you offer to improve Maven Roasters operations?