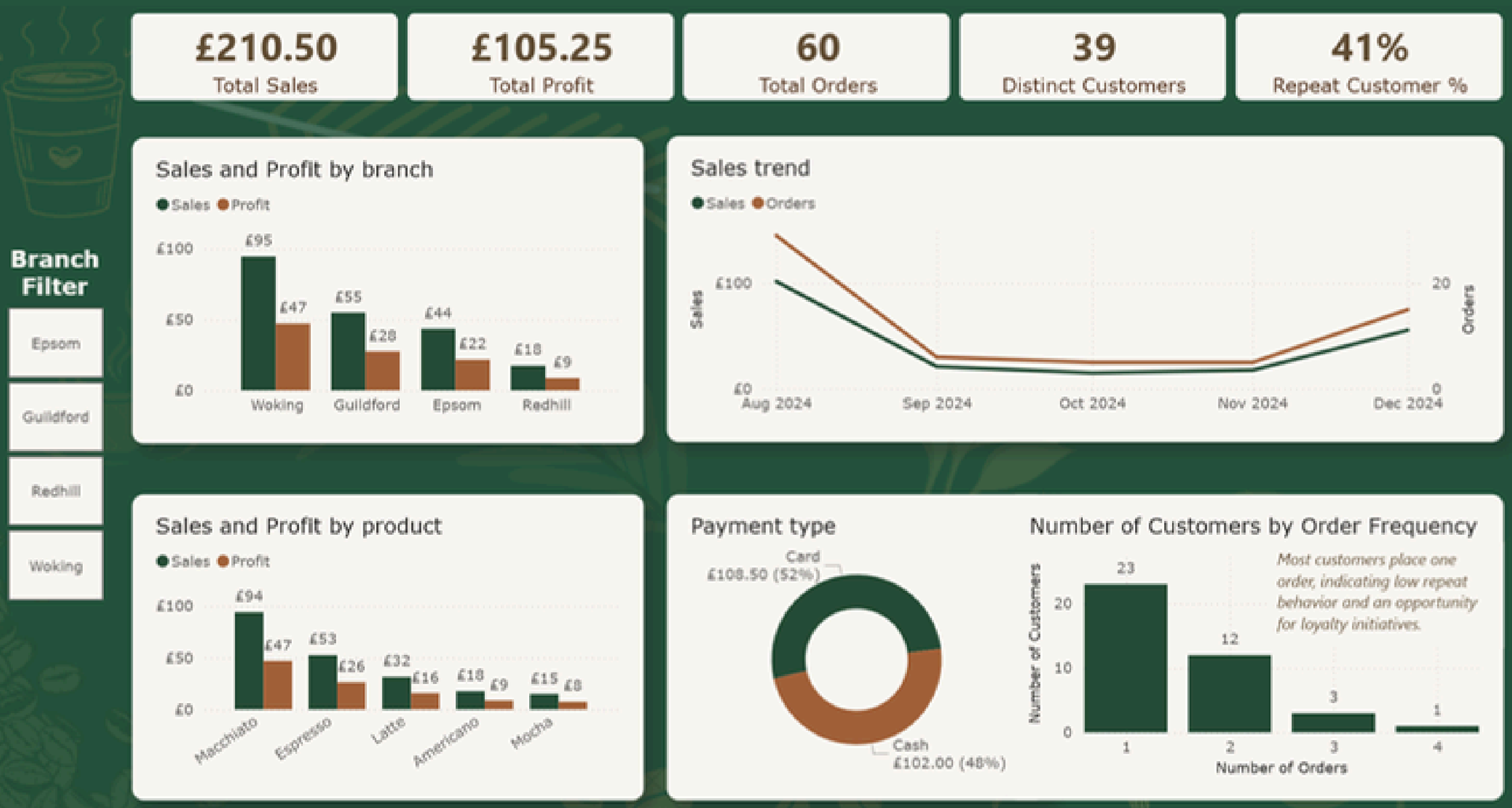
How - Tools & Architecture

Text File → Python ETL → Clean CSV → Power BI Dashboard

- Raw cafe sales data provided as a text file
- **Python** ETL prepares the data:
  - Cleans and standardises records
  - Removes sensitive information
  - Anonymises customer data
  - Applies business logic (profit calculation)
- Clean and prepared data saved as CSV file
- **Power BI** used to build interactive dashboard

What - Interactive Dashboard



- **KPI Cards -** *Provide an instant performance snapshot*
- **Bar Charts (Branch & Product Performance) -** *Make it easy to compare sales and profit across branches and products*
- **Line Chart (Sales Trend) -** *Shows trends in sales over time*
- **Pie Chart (Payment type)** - Displays customer payment preferences (cash vs card)
- **Bar Chart (Customer Order Frequency)** *to distinguish between one-time and repeat customers.*
- **Slicer -** *Allows users to focus on performance for individual branches*

WHY - Tools & Visualisations Choices

Python

- Enables early data anonymisation
- Automates data cleaning and business logic

Power BI

- Interactive
- Rich visualisation options, business-friendly

- **KPI cards** - key business metrics.
- **Bar charts** - to compare performance across different categories, such as branches and products.
- A **line chart** - to clearly show trends in sales over time.
- A **pie chart** - a simple and intuitive view of customer payment preferences.
- A **slicer** - to focus on the performance of individual branches.

Result:

clear insights, minimal effort and a scalable foundation