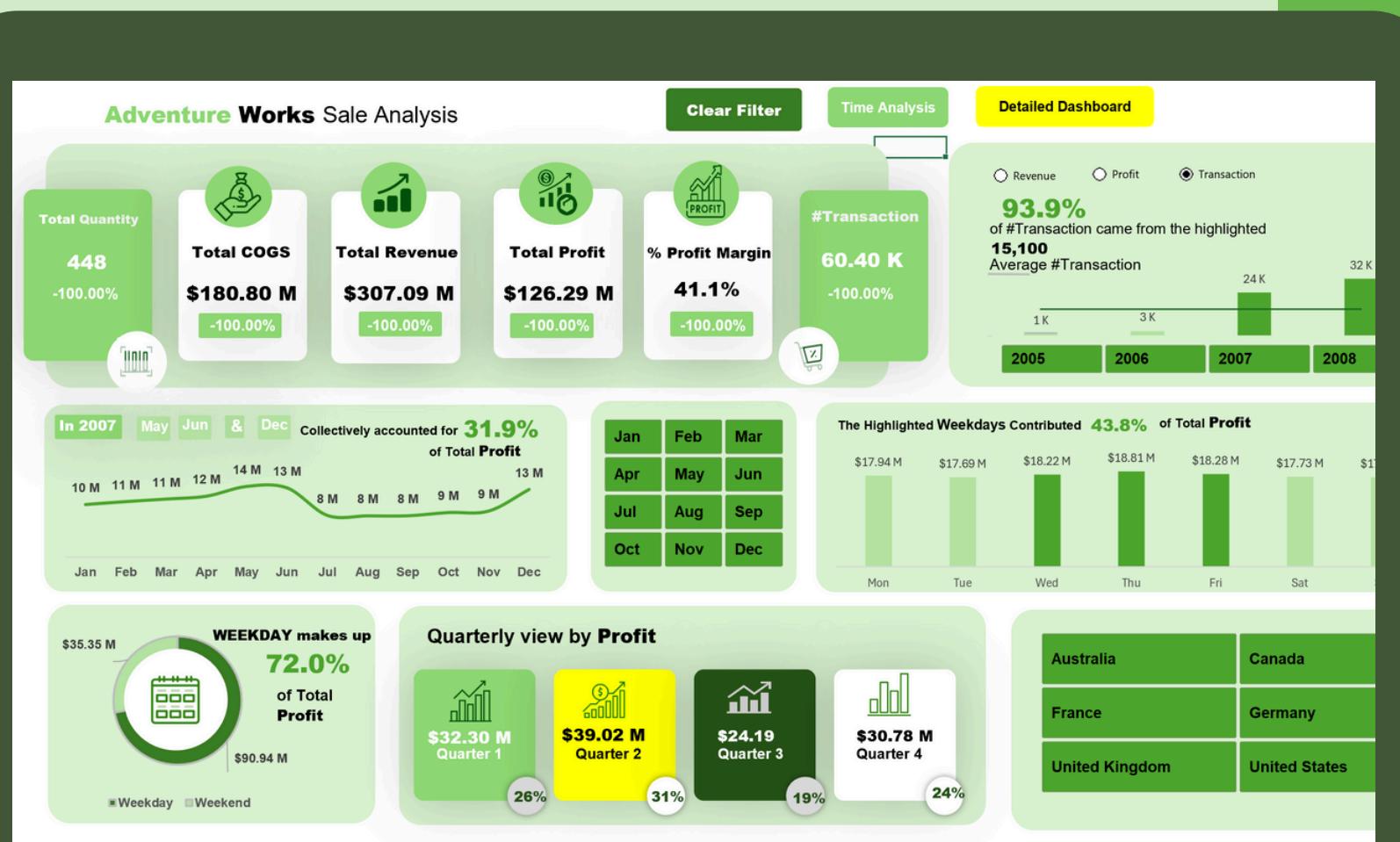


A COMPREHENSIVE OVERVIEW OF SALES ANALYSIS

Excel Dashboard Project: Adventure Works Sales Analysis



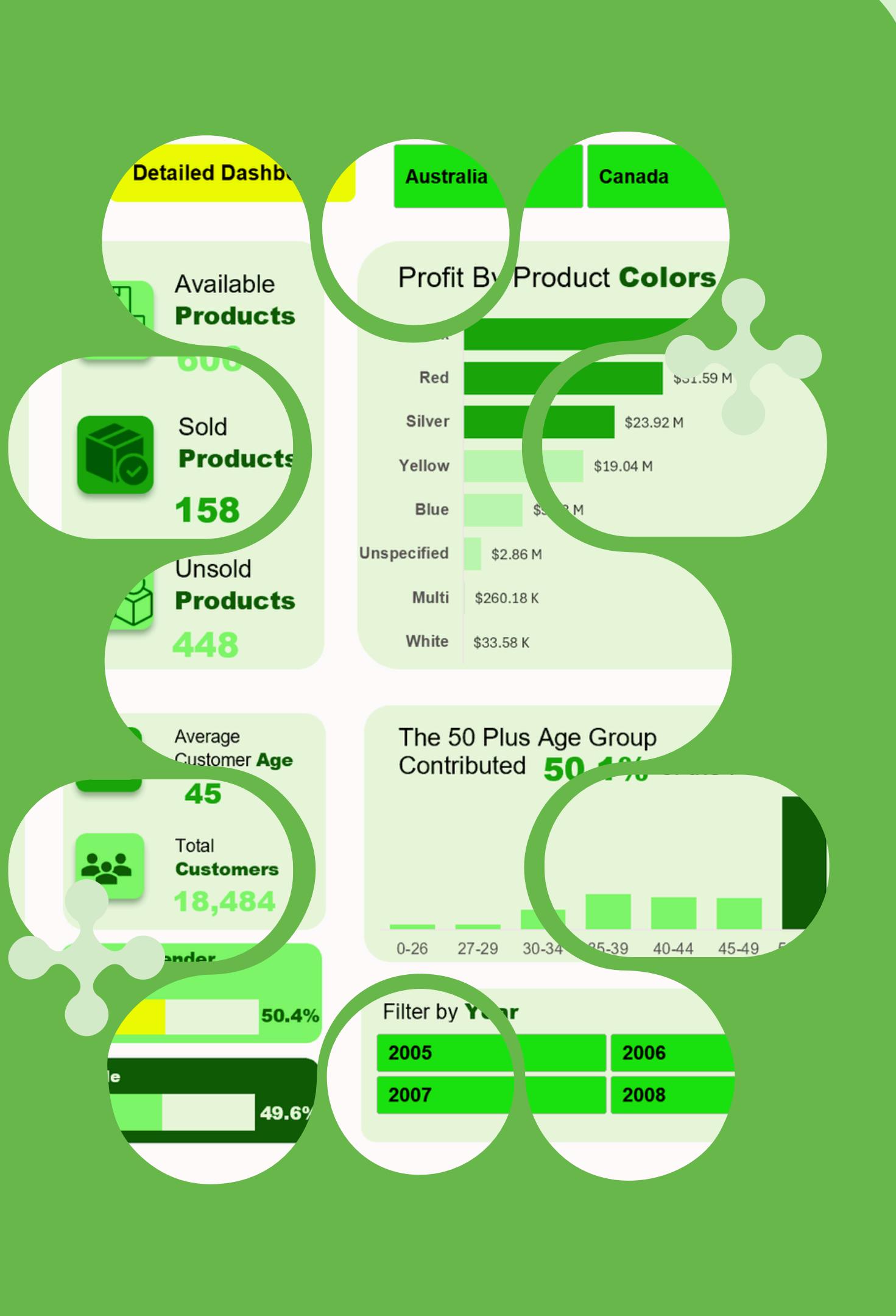
CREATED USING POWER QUERY, POWER PIVOT,
AND DYNAMIC VISUALS

By **Fouzia Ashfaq**
Data Analyst
[LinkedIn Profile](#)

Project Overview

Overview of the main project topics and tools

- **Objective:** Analyze sales performance from data
- **Tools Used:** Excel, Power Query, and Power Pivot
- **Outcome:** Interactive dashboard with KPIs and charts
- **Features:** Slicers for advanced data filtering
- **Insights:** Key findings from the dashboard analysis



Data Preparation & Cleaning Process

Essential steps for effective data handling

The **data preparation** phase involved importing Adventure Works CSV files into Power Query.

Key steps included Imported into Power Query.

- Cleaned dates, removed duplicates.
- Added calculated columns (Month, Year).
- Transformed currency and profit fields.

The screenshot shows the Microsoft Power Query Editor interface. On the left, the 'Queries [7]' pane lists the following queries: FactInternetSales, DimSalesTerritory, DimProduct, DimGeography, DimDate, DimCustomer, and All Measures. The main area displays a table with the following schema:

| | ProductKey | OrderDateKey | DueDateKey | ShipDateKey | CustomerKey | SalesTerritoryKey |
|----|------------|--------------|------------|-------------|-------------|-------------------|
| 1 | 344 | 20050722 | 20050803 | 20050729 | 11000 | |
| 2 | 353 | 20070722 | 20070803 | 20070729 | 11000 | |
| 3 | 485 | 20070722 | 20070803 | 20070729 | 11000 | |
| 4 | 573 | 20071104 | 20071116 | 20071111 | 11000 | |
| 5 | 541 | 20071104 | 20071116 | 20071111 | 11000 | |
| 6 | 530 | 20071104 | 20071116 | 20071111 | 11000 | |
| 7 | 214 | 20071104 | 20071116 | 20071111 | 11000 | |
| 8 | 488 | 20071104 | 20071116 | 20071111 | 11000 | |
| 9 | 350 | 20050718 | 20050730 | 20050725 | 11001 | |
| 10 | 353 | 20070720 | 20070801 | 20070727 | 11001 | |
| 11 | 485 | 20070720 | 20070801 | 20070727 | 11001 | |
| 12 | 477 | 20070720 | 20070801 | 20070727 | 11001 | |
| 13 | 478 | 20070720 | 20070801 | 20070727 | 11001 | |
| 14 | 491 | 20070720 | 20070801 | 20070727 | 11001 | |
| 15 | 225 | 20070720 | 20070801 | 20070727 | 11001 | |
| 16 | 604 | 20080612 | 20080624 | 20080619 | 11001 | |
| 17 | 477 | 20080612 | 20080624 | 20080619 | 11001 | |
| 18 | 479 | 20080612 | 20080624 | 20080619 | 11001 | |
| 19 | 217 | 20080612 | 20080624 | 20080619 | 11001 | |
| 20 | 346 | 20050710 | 20050722 | 20050717 | 11002 | |
| 21 | 359 | 20070704 | 20070716 | 20070711 | 11002 | |
| 22 | 561 | 20070827 | 20070908 | 20070903 | 11002 | |
| 23 | 222 | 20070827 | 20070908 | 20070903 | 11002 | |
| 24 | 346 | 20050701 | 20050713 | 20050708 | 11003 | |
| 25 | 361 | 20070709 | 20070721 | 20070716 | 11003 | |
| 26 | 478 | 20070709 | 20070721 | 20070716 | 11003 | |
| 27 | 477 | 20070709 | 20070721 | 20070716 | 11003 | |
| 28 | 225 | 20070709 | 20070721 | 20070716 | 11003 | |
| 29 | 564 | 20071111 | 20071123 | 20071118 | 11003 | |

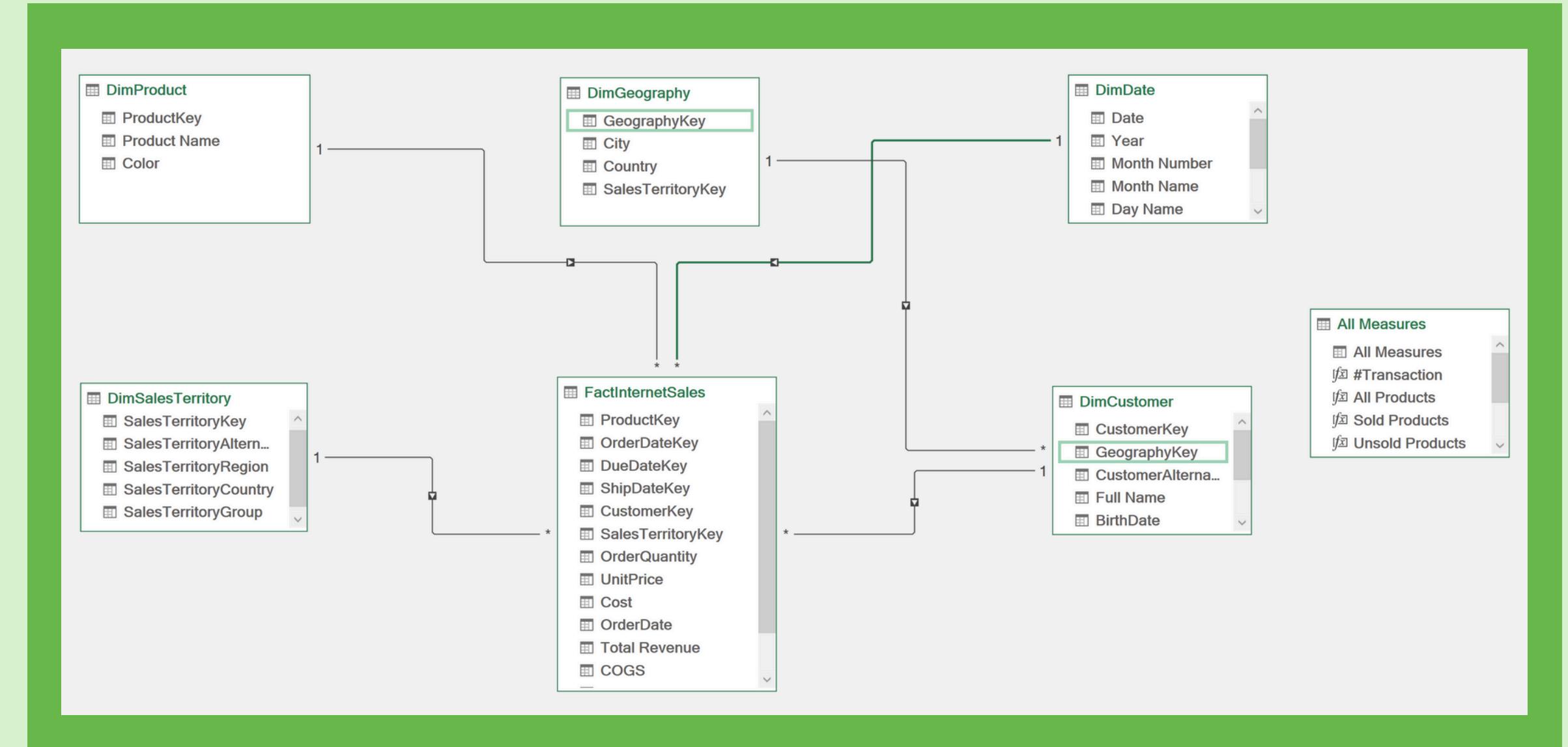
The 'APPLIED STEPS' pane on the right lists the following steps:

- Source
- Navigation
- Promoted Headers
- Changed Type
- Removed Other Columns
- Renamed Columns
- Changed Type1
- Added Custom
- Changed Type2
- Added Custom1
- Changed Type3
- Added Custom2
- Changed Type4
- Added Conditional Column
- Changed Type5

Data Modeling with Power Pivot

Establishing relationships and building DAX measures

In this section, we created **relationships** between fact and dimension tables. By building **DAX measures** such as Total Revenue, COGS, and Profit, we ensured that all visuals are **dynamic** and interconnected, enhancing data analysis.

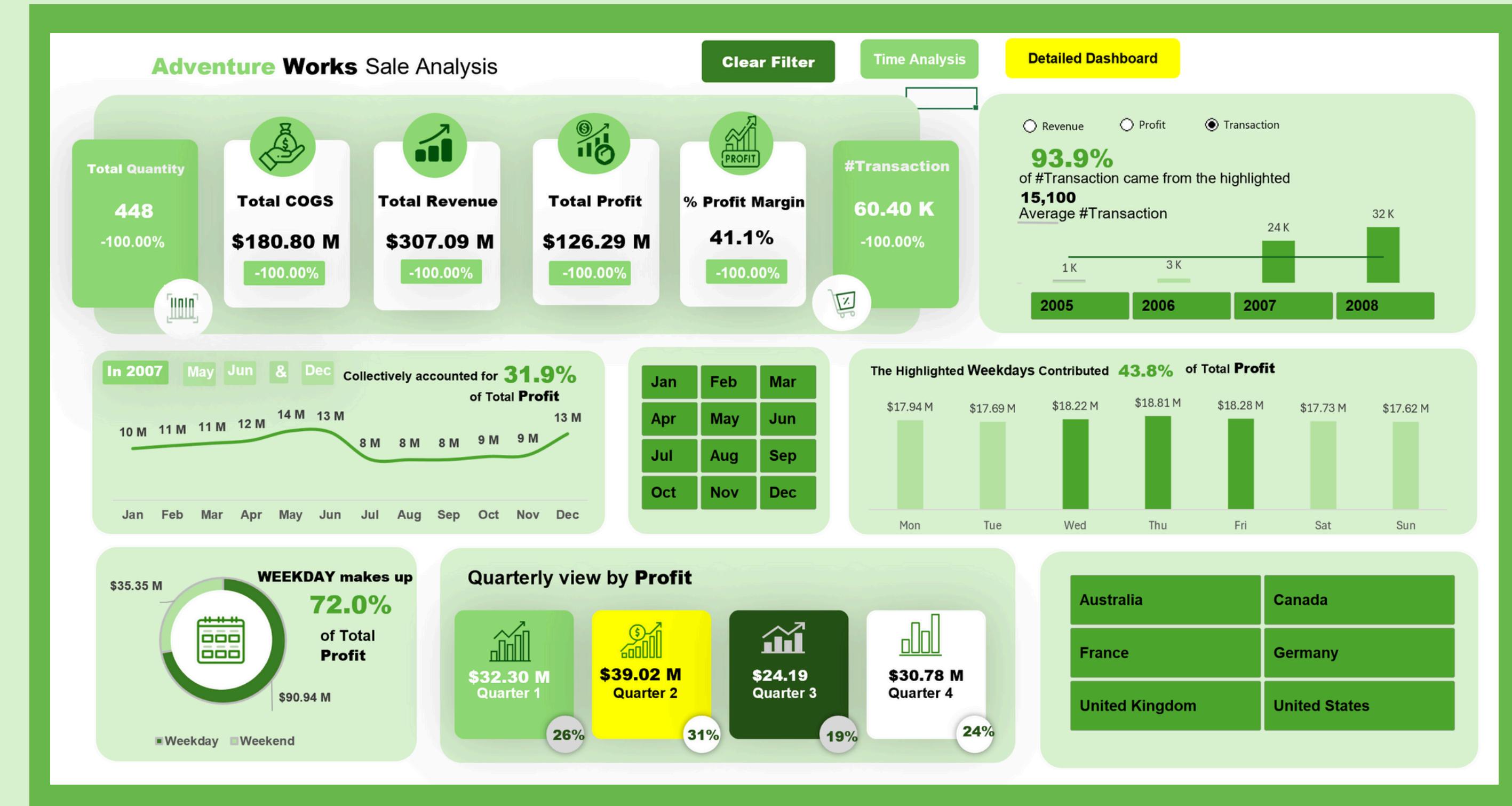


Dashboard 1 – Time Analysis Dashboard

This is the main dashboard that gives an overview of key sales metrics across four years of Adventure Works data.

This section highlights essential **dashboard components** including:

- **KPI Cards:** Total Revenue, COGS (Cost of Goods Sold), Net Profit, Profit Margin (%)
- **Top Performing Products & Customers**
- **Profit by Gender**
- **Product Color Performance**
- **Slicers:** Year, Month, Country.
- **Visual Enhancements:** Conditional formatting, white space, consistent color scheme.



Dashboard 2 – Detail Dashboard

This dashboard dives deeper into customer and product-level performance, allowing users to analyze data at a more granular level

This section highlights essential **dashboard components** including

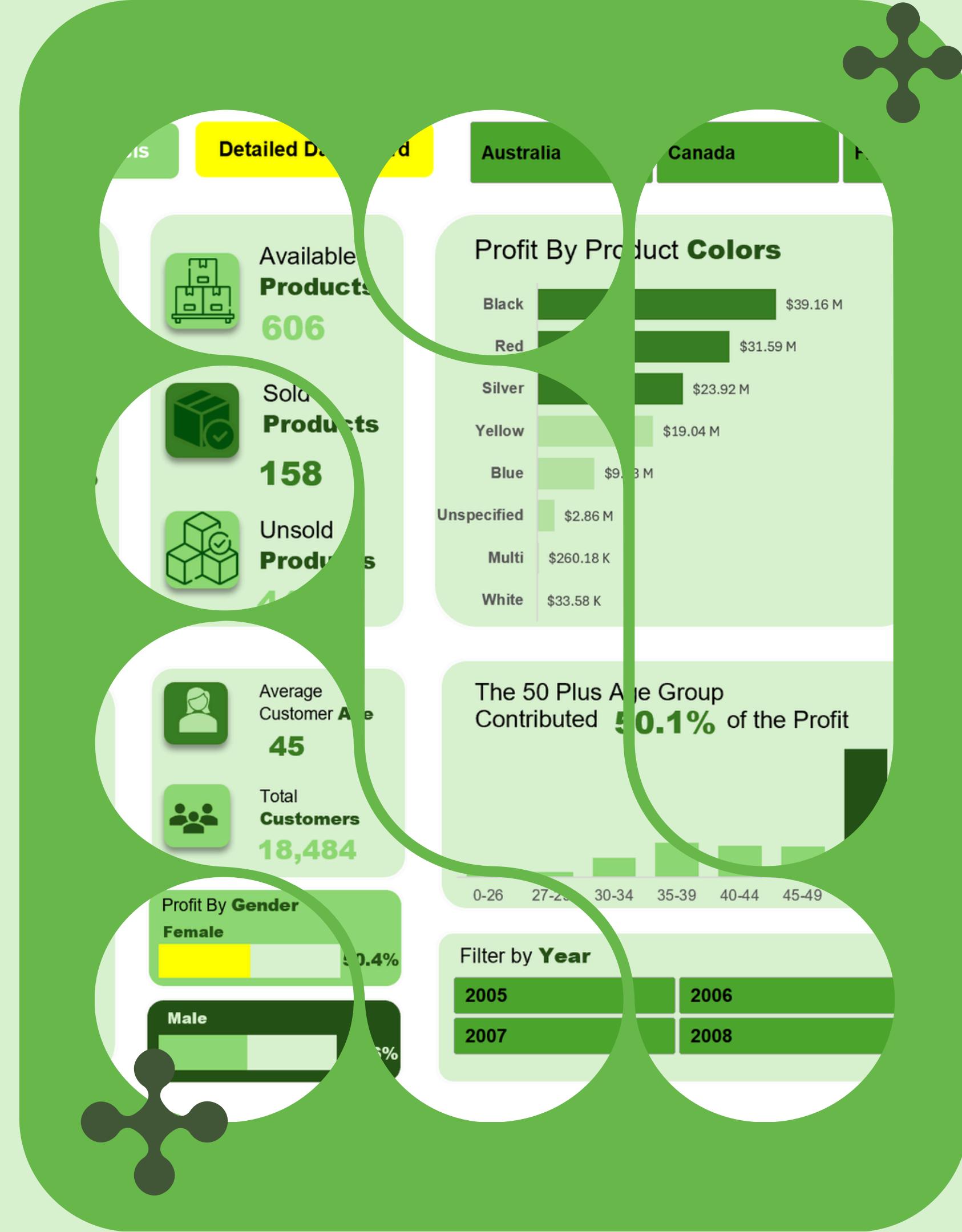
- KPI Cards:** Top Products, Customers, Profit by Gender.
- Charts:** Product Color, Age Group, Country-wise Profit.
- Slicers:** Year, Month, Product Category.
- Visual Enhancements:** Conditional formatting, white space, consistent color scheme.



Dynamic Filtering with Slicers

Real-time data analysis using interactive slicers

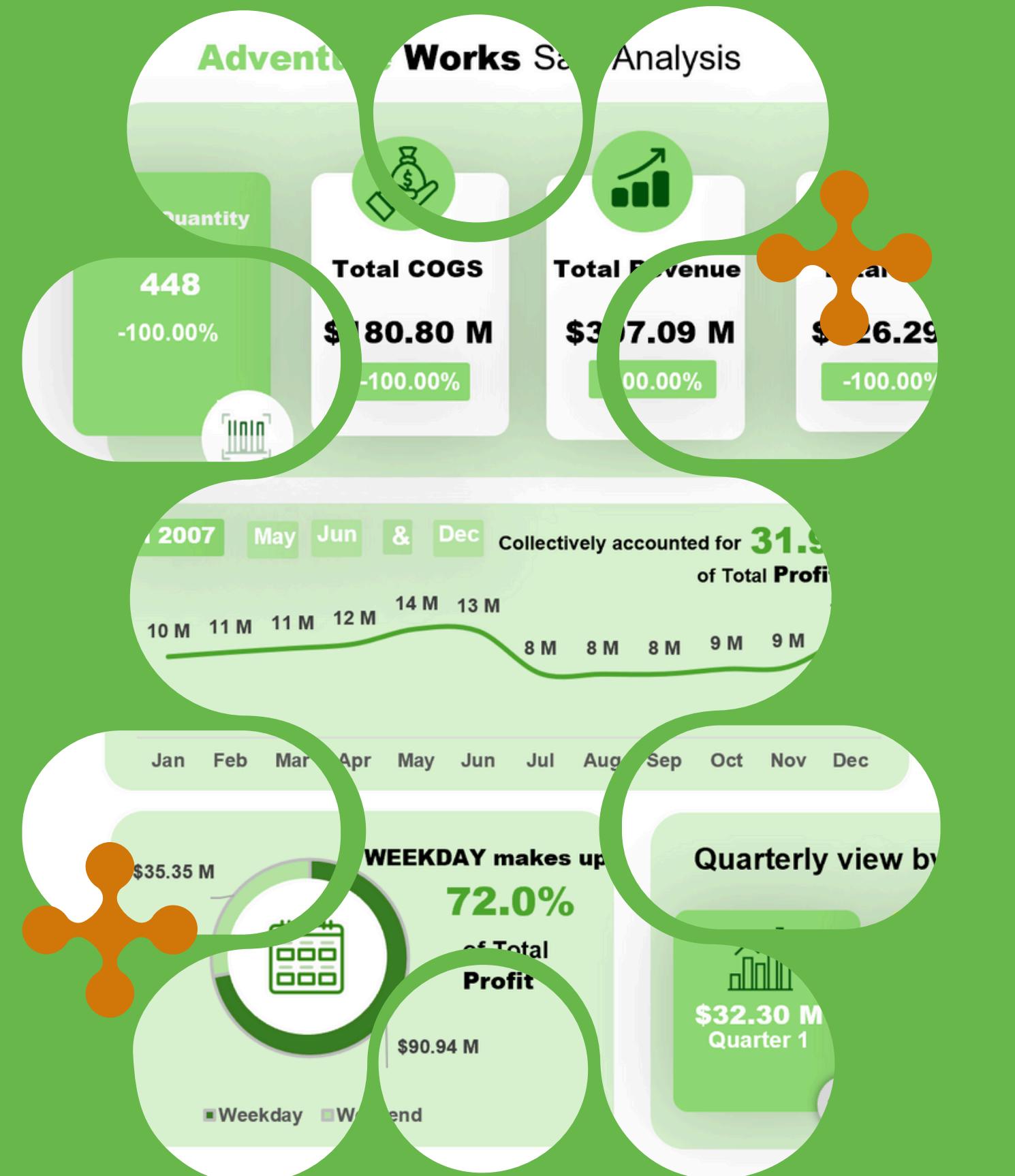
Slicers provide a user-friendly way to filter data by **Year, Month, and Product Category**. They enable **real-time updates** to the dashboard, enhancing interactivity. The **GETPIVOTDATA** function facilitates dynamic linking between slicers and data visualizations, ensuring up-to-date insights.



Customization

Here are the key points we will cover

- Custom number formatting for better clarity
- Font, alignment, and spacing adjustments
- Consistent branding across all dashboard elements
- Color palette selection for visual appeal
- Enhancements for improved user experience





Key Insights

Here are the key insights from our sales analysis

- Top performing products and their sales figures
- Monthly profit trends over the year
- Customer segments and their purchasing behavior
- Regional performance across different markets
- Recommendations for future sales strategies



"Overcoming challenges in data analysis not only enhances our skills but also reveals insights that drive impactful decisions, transforming obstacles into opportunities for innovation and growth."

- LAURA SMITH, DATA ANALYST



Want to see it in action?

Check out my screen recording where I walk through how the dashboards update dynamically with slicers, filters, and calculated fields!



[Link for video](#)