

# Adventure Works Sales Management Project

## Final Report

### Summary:

This report summarizes the conclusion of the Adventure Works Sales Management project, a comprehensive exploration of data cleansing and visualization proficiency. Utilizing SQL for thorough data cleansing and Power BI for insightful dashboards, the objective of this endeavor was to improve decision-making through enriched data analysis.

### Data Cleaning with SQL:

**DimCalendar Table:** Cleansing on the Date table aims to retrieve relevant date-related information for the last 2 years as per requirements of the project, i.e. year 2022 and beyond.

**DimCustomers Table:** Here I use SQL query to retrieve and organizes customer information, including names, gender, first purchase date. I use SQL JOIN to joins DimCustomers table with the DimGeography table to retrieve geographic details from the AdventureWorksDW2022 database.

**DimProduct Table:** An effort on cleansing DimProduct tables is for improved the reliability of product-related data.

**FactInternetSales Table:** The core of our analysis, the FactInternetSales table, underwent meticulous cleaning, specifically focusing on the last two years of sales data from the AdventureWorksDW2022 database.

### ER Diagram:

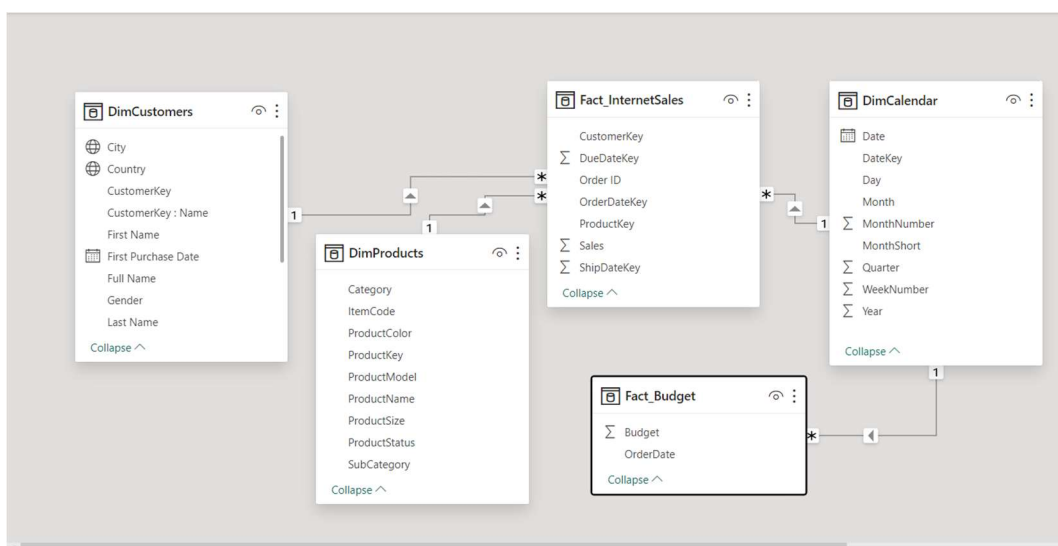


Figure 1: ER Diagram

Power BI Dashboard:

Sales Overview Dashboard:

Objective: Evaluate sales performance over two years against the budget.

Key Features:

- Visual comparison of two years' sales against budget for comprehensive insights.
- Dynamic charts depicting sales trends, allowing sales manager and representatives to identify patterns and fluctuations.

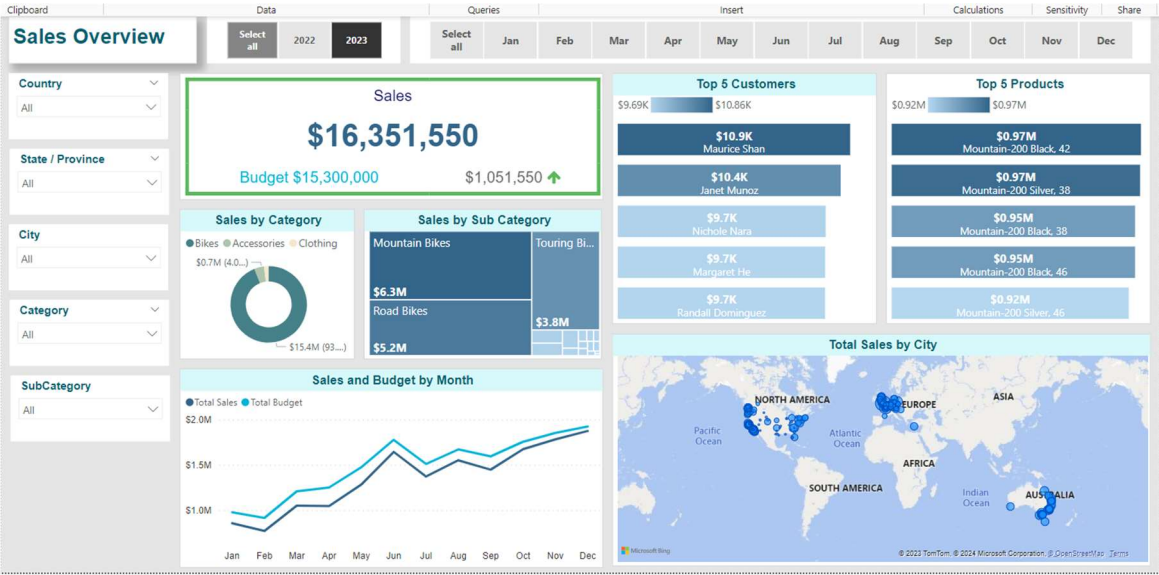


Figure 1: Sales Overview Dashboard

Customer Details Dashboard:

- Provides a detailed view of customer demographics, preferences, and purchase behavior.

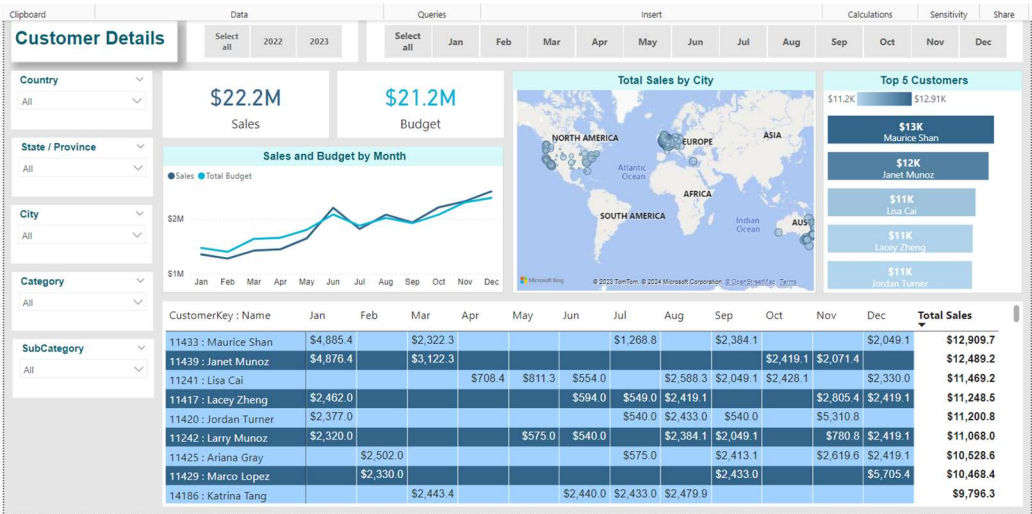


Figure 2: Customer Details Dashboard

Product Details Dashboard:

- Provides a comprehensive analysis of product sales trends and representations of top-performing products.

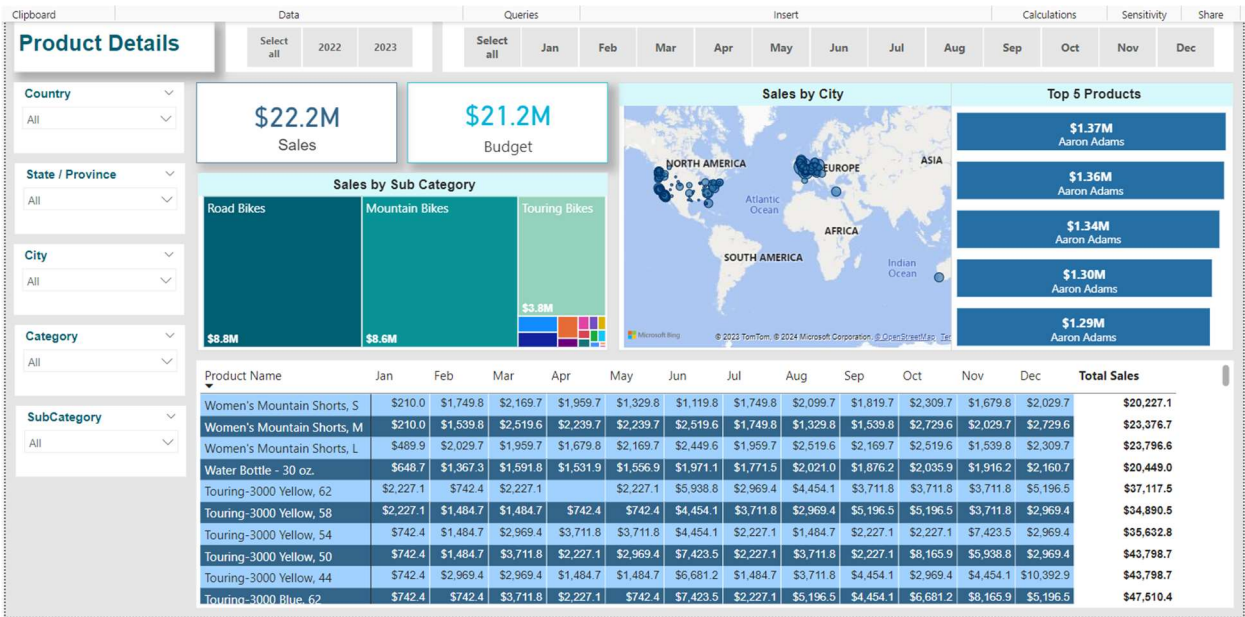


Figure 3: Product Details Dashboard

Key Findings:

- Bikes stand out as the most preferred among the three product categories, significantly surpassing the comparatively lower sales in the accessories and clothing sectors of the company.
- The United States leads in sales for the year 2023, while Australia claimed the top spot in 2022.
- Road bikes dominated sales in 2022, but in 2023, mountain bikes took the lead, accumulating total sales exceeding \$6.3 million.

Recommendation:

- Since bikes, especially road and mountain bikes, are popular, focus on enhancing marketing efforts for these products by introducing sales promotions or bundle deals to encourage more purchases.
- Given the comparatively lower sales in accessories and clothing, consider implementing targeted marketing strategies or promotions to boost interest and sales in these sectors.