# AdventureWorks Power BI Dashboard Summary

This document summarizes the AdventureWorks Power BI Dashboard project. The project simulates the role of a Business Intelligence Analyst, where the task was to transform raw data into meaningful insights using Power BI. Key stages included data preparation, modeling, visualization, and dashboard design, following the real-world business intelligence workflow.

Executive Dashboard

The Executive Dashboard provides a high-level overview of the company key metrics, including revenue, profit, order count, and return rate. It highlights revenue trends over time and categorizes orders by product types, helping identify top-performing and frequently returned products.
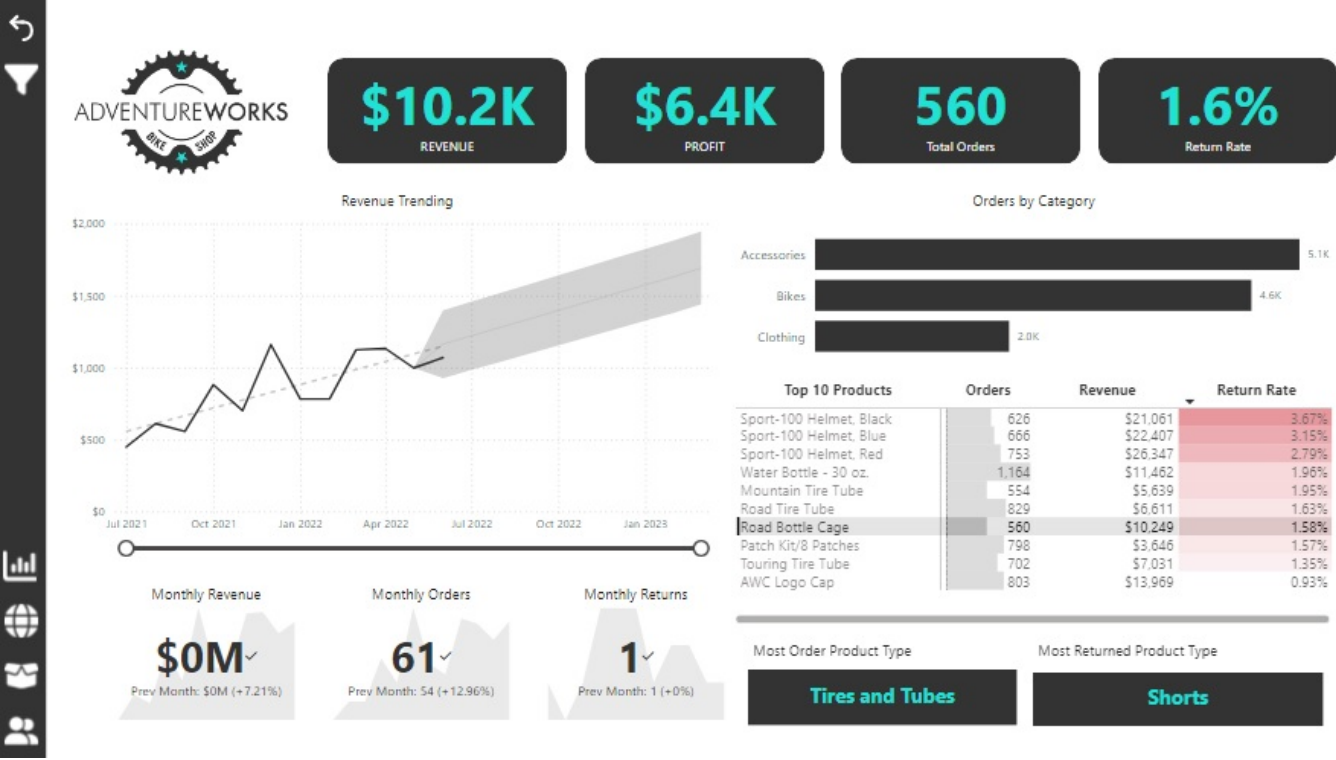
Map Visualization

This map provides a geographical breakdown of sales performance across regions. It enables the analysis of regional market penetration and allows for comparisons between key territories. The filter functionality facilitates a deep dive into specific regions, such as Europe or North America.
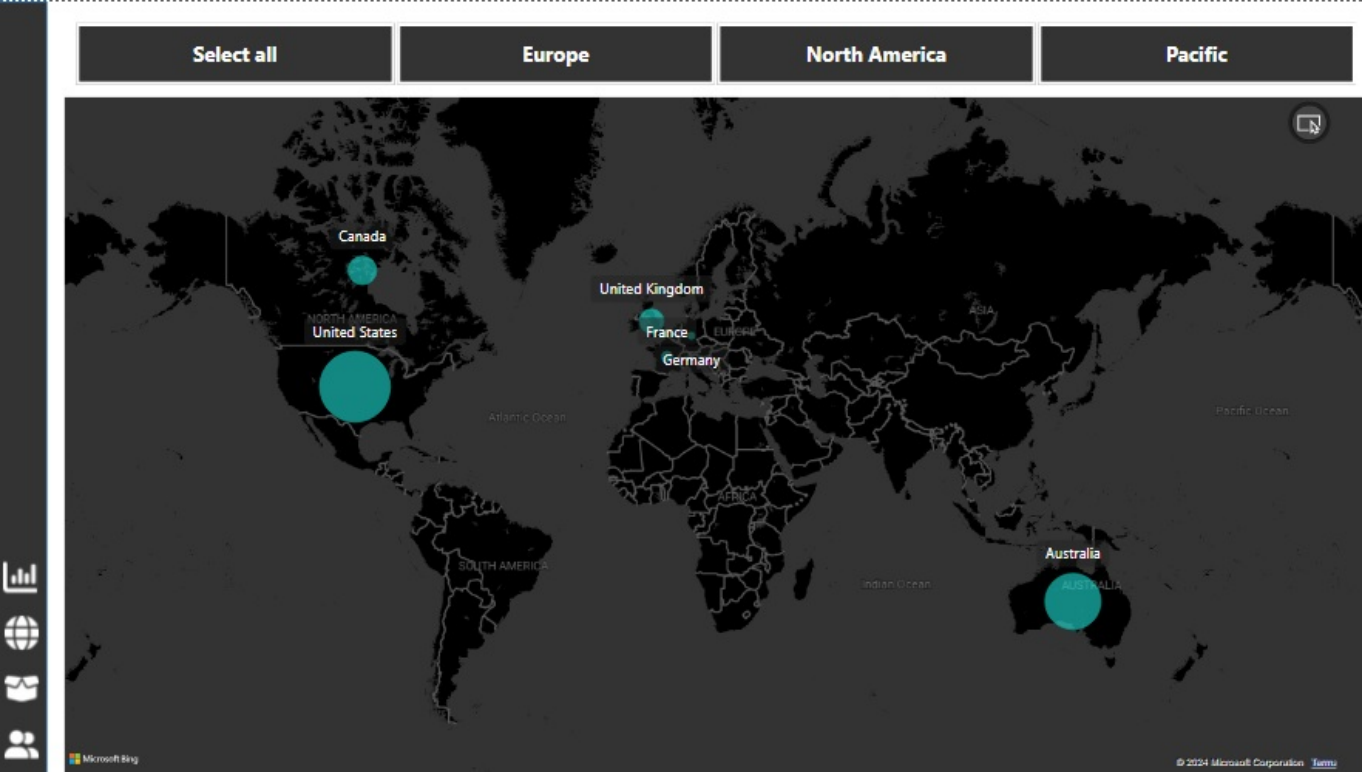
Product Detail

The Product Detail dashboard tracks individual product performance. It displays metrics such as orders, revenue, profit, and returns, compared against target values. Adjustments can be made to prices to analyze potential effects on profit margins, aiding in strategic product management.
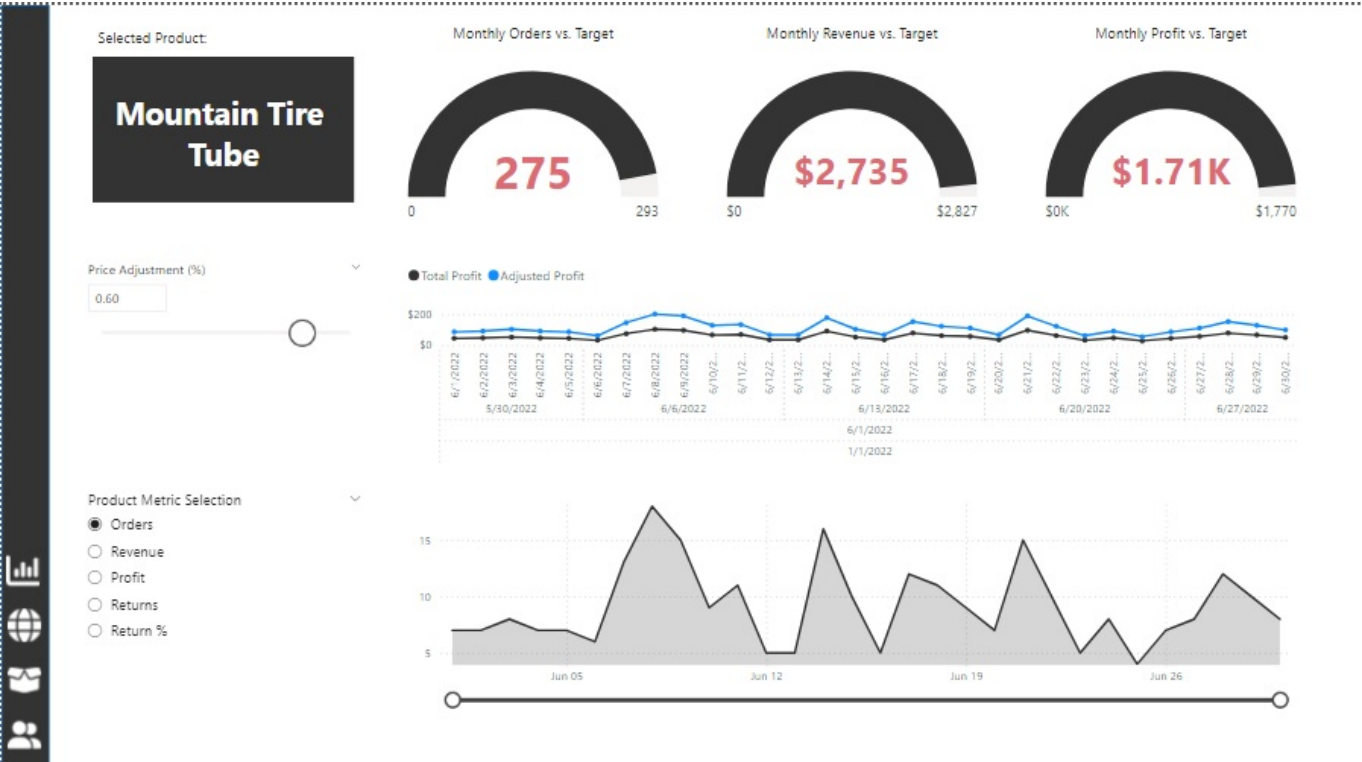
Customer Detail

The Customer Detail dashboard segments customers based on income level, occupation, and revenue per customer. It identifies high-value customers and analyzes customer demographics to assist in targeted marketing efforts. The dashboard also includes filters to view customer data across different time frames.
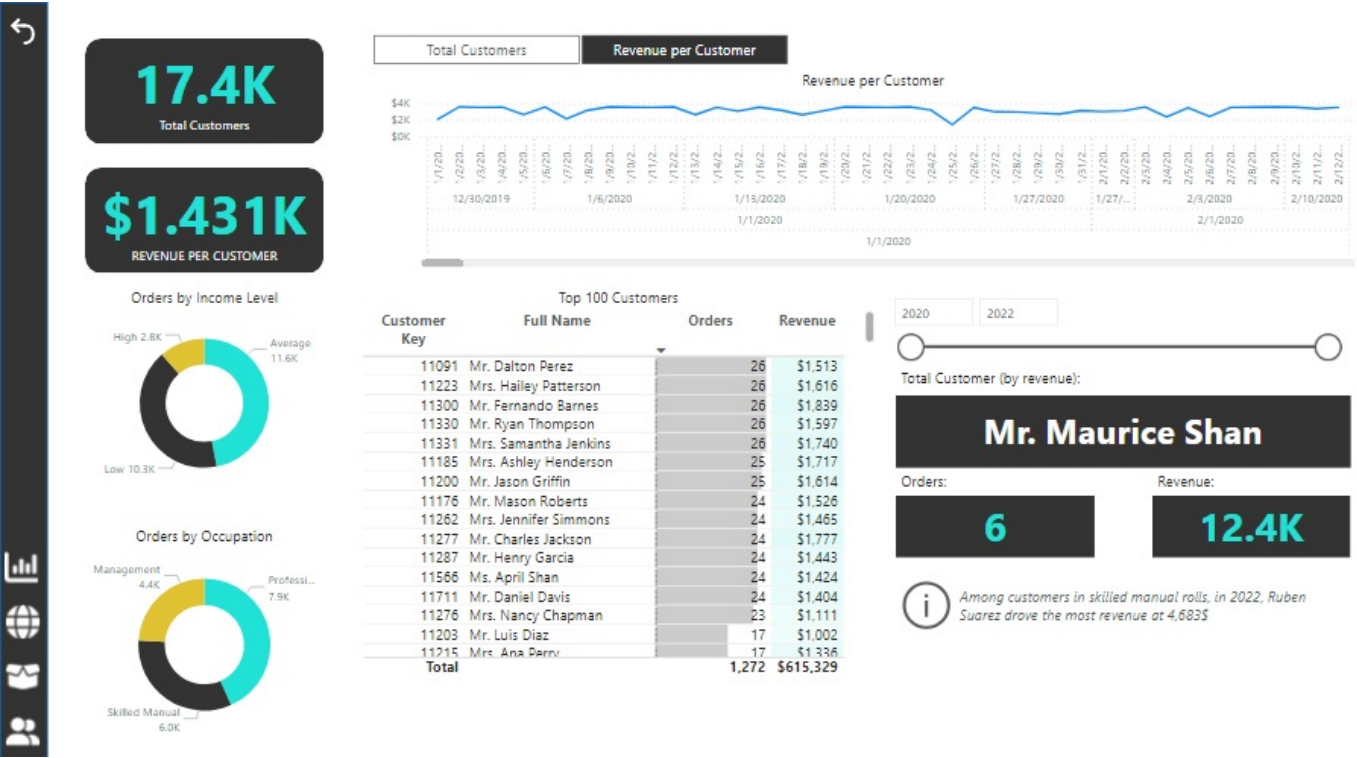
Data Model Overview

The Data Model in Power BI organizes AdventureWorks data into a structured relational model. This model consists of fact tables, such as Sales Data and Returns Data, which hold transaction information, and dimension tables, including Customer Lookup, Product Lookup, and Territory Lookup. Key elements include:

- **Fact Tables**: Store transactional data (Sales Data, Returns Data) with relationships to dimension tables.
- **Dimension Tables**: Store descriptive information, like product details, customer demographics, and region.
- **Relationships**: The model leverages primary and foreign keys to define relationships, supporting analyses like sales by region, customer segmentation, and product performance.