Project Objective

The objective of this project was to analyze a bike sales dataset using Excel to uncover insights about customer purchasing behavior. The aim was to identify patterns based on demographics such as age, gender, income, region, education, and commute distance, and to present findings in a clear, interactive dashboard.

Data Cleaning

- Replaced shorthand values (e.g., **'M'** → **'Male'**, **'F'** → **'Female'**, **'S'** → **'Single'**, **'M'** → **'Married'**) for clarity.
- Created a new **Age Bracket** column (Adolescent, Middle Age, Old) using **nested IF statements** based on customer age.
- **Removed duplicate rows** to avoid skewed analysis.

Data Analysis

Key pivot tables were created to summarize:

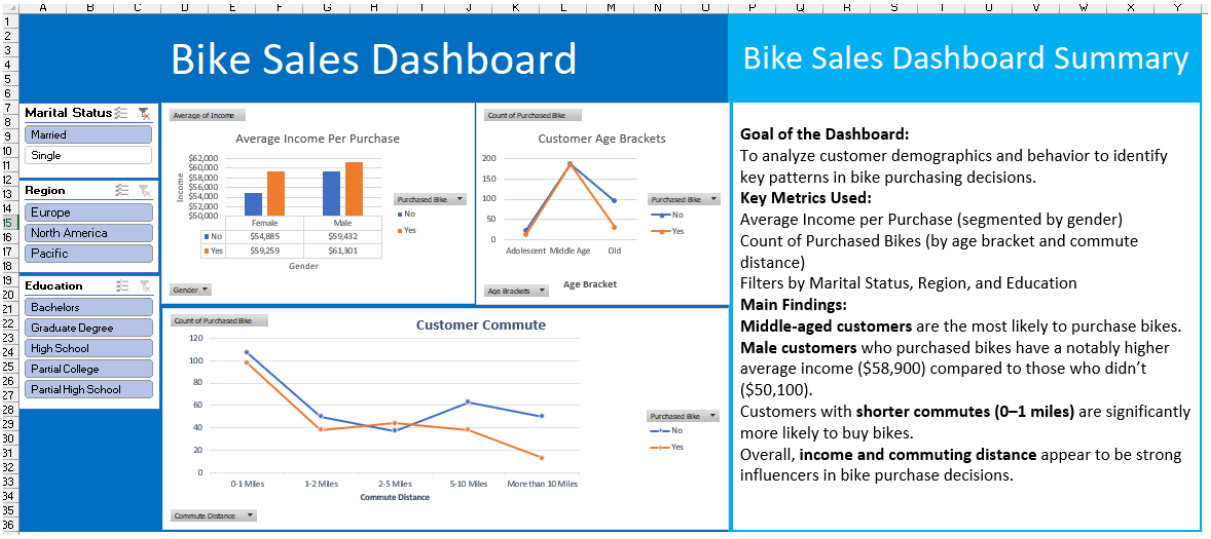
- **Average income by gender** and bike purchase status.
- **Count of purchases by age bracket.**
- **Purchases by commute distance:**
  These allowed for a deeper understanding of which customer segments are more likely to buy bikes.

Dashboard Design

The dashboard was designed using pivot charts and slicers to create an interactive user experience. Slicers were added for **Marital Status**, **Region**, and **Education** to allow users to filter the data. Charts were chosen to clearly visualize the differences between buyers and non-buyers across key categories.

Key Insights

- **Middle-aged customers** are the most likely to purchase bikes.
- **Male customers** who purchased bikes have a notably higher average income ($58,900) compared to those who didn't ($50,100).
- Customers with **shorter commutes (0–1 miles)** are significantly more likely to buy bikes.
- Income and commuting distance appear to be strong influencers in bike purchase decisions.



Screenshot of the project´s dashboard.