Project Title: Amazon Product Review Analysis

Objective: To perform an exploratory data analysis (EDA) on Amazon product review data to identify patterns and generate business insights related to product performance, customer engagement, and pricing strategies. Visualize findings using Power BI.

Tools Used:

- Microsoft Power BI
- Power Query Editor (in Power BI)
- DAX (Data Analysis Expressions)

Data Source:

- Amazon product dataset (CSV or Excel)
- Fields include: Product Name, Category, Actual Price, Discounted Price, Rating, Review Count, etc.

Step-by-Step Process:

Step 1: Data Import and Cleaning

1. I loaded dataset into Power BI.
2. I opened Power Query Editor:
    - Checked column header.
    - Replaced 'null' in rating count with 1.

Step 2: I created Calculated Columns

1. **Discount %**

```
Discount % =
DIVIDE(Product[Original Price] - Product[Discounted Price], Product[Original
Price])
```

2. **Price Bucket**

```
Price Bucket =
SWITCH(

    TRUE(),
    amazon[actual_price] < 200, "less than 200",
    amazon[actual_price] >= 200 && amazon[actual_price] <= 500, "200-500",
    amazon[actual_price] >500, "above 500"
)
```

```
3.  Discount% =
DIVIDE(
    amazon[actual_price] - amazon[discounted_price], amazon[actual_price])

4.  EstimatedRevenuePerProduct = amazon[rating_count] * amazon[discounted_price]
5.  Score = amazon[rating] * amazon[rating_count]
6.  MainCategory = LEFT('amazon'[category], FIND("|", 'amazon'[category] & "|") -1)
```

Step 3: Created DAX Measures

1. **Average Overall Discount**

```
AverageDiscount%Overall = AVERAGE(amazon[Discount%] )
```

Step 4: Built Power BI Visuals

- KPI Cards: Average Overall Discount, Total Estimated Revenue, Total Reviews, Highest rating Possible
- Pie Chart: Rating Distribution
- Bar Chart: Product Category vs. Average Discount %
- Bar Chart: Product Category vs. Reviews
- Table: Top 5 Products by Review Score
- Table: Top 5 Products by Rating
- Bar Chart: Actual Price and Discounted Price of Categories
- Bar Chart: Actual Count of Products within Categories
- Scatter Plot: Discount % and Rating
- Slicers: Category, Price Bucket, Rating Range

Step 5: Finalized Dashboard

- Added title and branding

Step 6: Summary of Insights

- Saved and published to my GitHub portfolio