Customer Shopping Trends Analysis

As a Data Analyst at a retail chain, you have been provided with data on customers' shopping behaviours and preferences. The management is looking to use this information to understand purchase patterns, analyze customer segments, and create a targeted marketing strategy for the upcoming season.

Your task is to analyze this dataset to answer the following questions and generate insights using Power BI. Prepare a Power BI dashboard that includes interactive visuals to present your findings effectively.
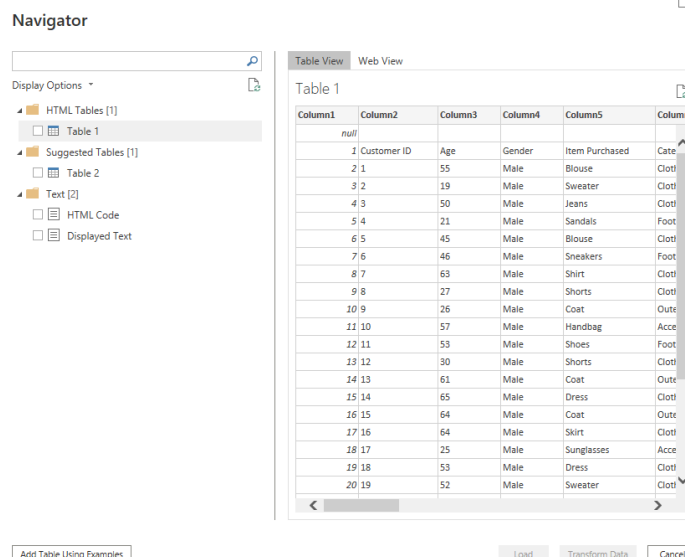
Extract Data:

Dataset link: Customer Shopping Trends
Follow the given steps to load the dataset to Power BI:
- Open Power BI Desktop.
- Click on Get Data > More > Web
- Paste the link > OK
- Click Anonymous > Select the last link from the dropdown option > Connect.
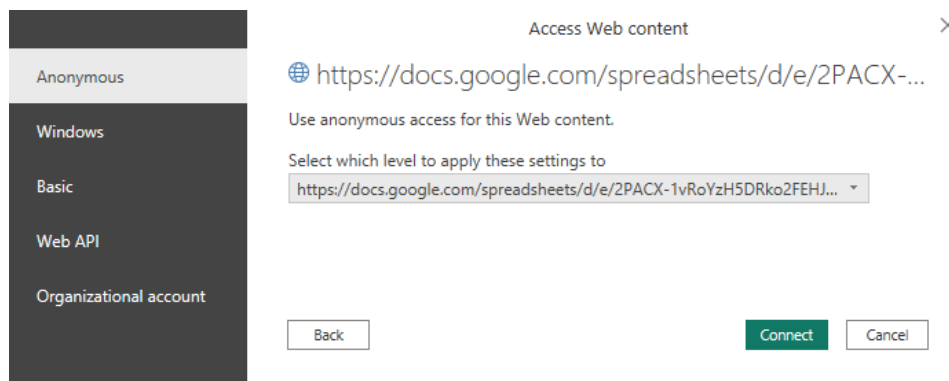
- Choose the table 1 > Transform.

Transform Data.   **Points: 5**

- Rename the table.
- Make the column names accurate.
- Remove the extra columns.
- Split Color-Size into two columns and rename the columns accordingly.
- Check the type of review rating and find a method to convert it to a decimal number.

Tasks: **Points: 20**

1. **Customer Demographics Analysis**:
   - **Age Distribution**: Create a DAX column for Age categories. Make a visual showing the age distribution of customers.
   - **Customer Loyalty by Age Group:** Which age group shows the highest loyalty (measured by previous purchases)?
   - **Top Age Groups for High-Value Purchases:** Which age groups make the most high-value purchases? Highlight the top age group.
   - **Gender-Based Purchase Frequency:** How does purchase frequency vary by gender?

2. **Product and Category Analysis**:
   - **Top Categories by Purchase Amount**: Highlight the top 2 product categories that generate the highest revenue.
   - **Seasonal Trends**: Analyze the purchase trends by season to see which seasons have the highest spending.

3. **Geographical Analysis**:
   - **Location-Based Analysis**: Map customer locations and compare their purchase amounts. Highlight areas with the highest purchase amounts. (you can use gradient colors but make sure to choose other than the default color)
   - **Shipping Type Preference**: Analyze the popularity of different shipping types across the top five countries based on purchase amount.

4. **Dashboard Enhancements**:
   - **Interactive Filtering**: Implement slicers for Category, Location, Age, and Gender to allow management to easily filter and explore specific segments.
   - **Key Metrics**: Add KPI visuals to track essential metrics such as total sales, average purchase amount, and average rating.

Deliverables

1. **Submit** an interactive Power BI dashboard covering the above questions.
2. **Note:** You can add visuals of your own choice as well.