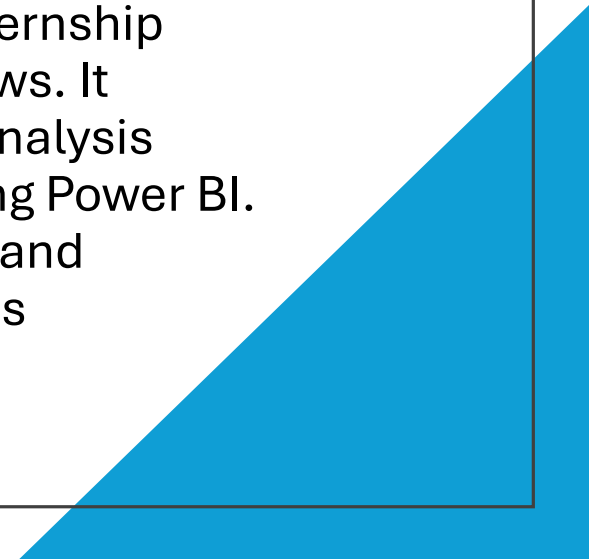


# Code Alpha Ecommerce Analysis

"Code Alpha Ecommerce Analysis is a Code Alpha internship project analyzing women's clothing e-commerce reviews. It includes Exploratory Data Analysis (EDA), Sentiment Analysis (positive, negative, neutral), and data visualization using Power BI. The project involves data cleaning, interactive visuals, and custom DAX queries, showcasing skills in Data Analysis



# Data Cleaning Steps in Power Query

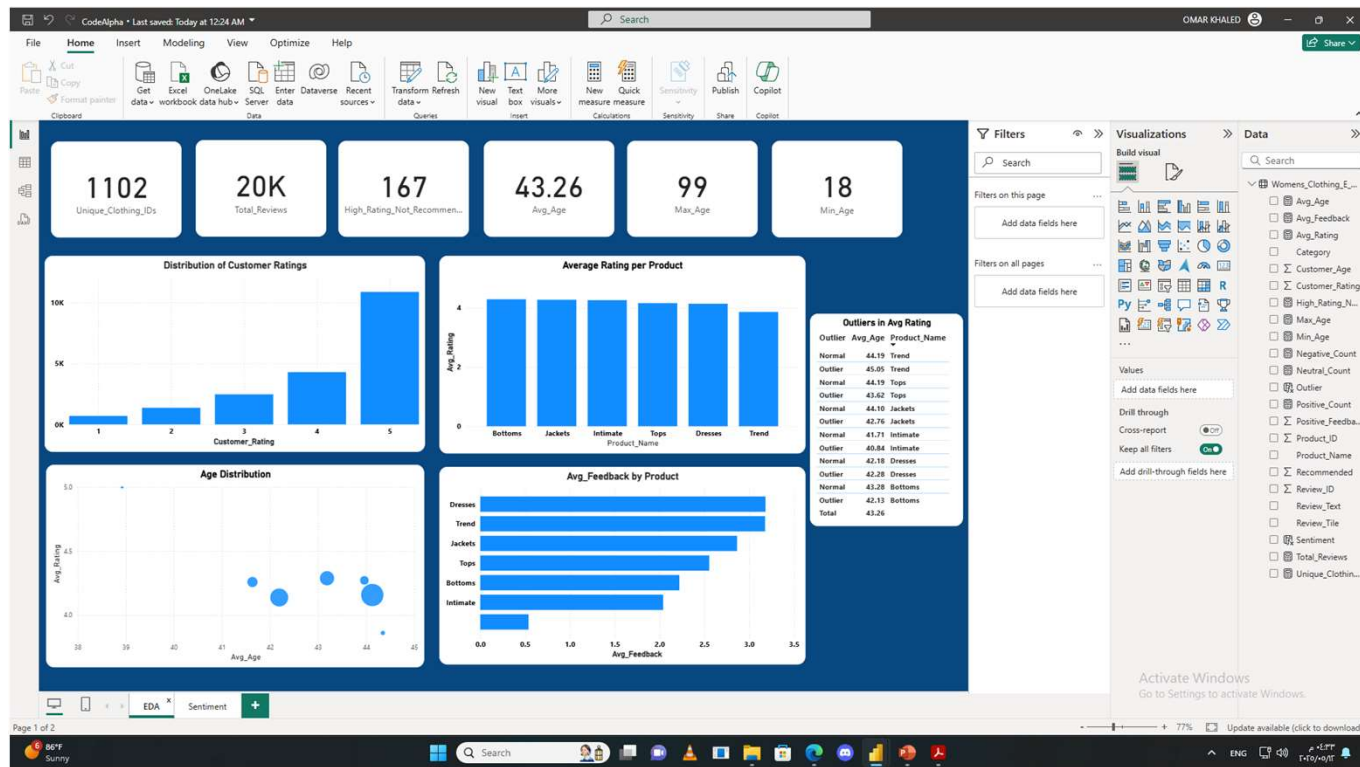
Review_ID	Comment_Age	Review_Title	Review_Text
1	2077	60: Some major design flaws	I had such high hopes for this dress and really wanted it to work for m...
2	2080	30: My favorite top!	I love, love, love this jumpsuit. It's fun, flirty, and fabulous every day...
3	867	47: Flattering top	This shirt is very flattering to all sizes to the shoulders from the m...
4	2080	49: Not for the very petite	I have many dress orders, but this one is not for the very petite. I am 5...
5	858	38: Excellent! Pleasure to wear	I added this in my basket at the last minute to see what it would look like...
6	858	38: Excellent, surprisingly great with size	Combined this in basket for dress plus up, and had a ton of stuff for the...
7	2077	24: Flattering	I love this dress. I usually get an A but it runs a little snug in bust so I...
8	2077	34: Such a fun dress!	I'm 5'5" and 125 lbs. I ordered the petite to make sure the length was...
9	2077	53: Dress looks like it's made of cheap material	Dress runs small and when the zipper was open, I noticed the quality...
10	2080	53: Perfect!!!	More and more I find myself reliant on the reviews written by savvy sh...
11	797	44: Runs big	Bought the black to go under the tan/pink midi dress because they fit...
12	2077	50: Pretty party dress with some issues	My size is 34-36/29-34 and this is fit very snugly around the chest...
13	2080	47: Nice, but not for my body	The dress is very pretty and it could easily be a nightgown too...
14	2080	34: You need to be at least average height, or taller	I'm 5'0" and it came to just below my knees...
15	853	42: Looks great with white pants	This is a nice choice for holiday gatherings. Like that the length gives...
16	1220	32: Super cute and cozy	I took these out of the package and wanted them to fit so badly, but I...
17	2077	47: Stylish and comfortable	Material and color is nice. The leg opening is very large. I am 5'2" (155)...
18	867	38: Cute, cheap dress	Took a chance on this because it is great. I want to say about the...
19	2080	33: I'm torn!	A flattering, super cozy coat. will work well for cold, dry days and will...
20	2077	32: Not what it looks like	I love the look and feel of this tube dress. I was looking for something...
21	2077	34: Like it, but don't love it.	If this product was in petite, I would get the petite. The regular is a litt...
22	867	50: Versatile	My sister's 5'4", 130lb and pregnant so I bought a medium to grow into...
23	857	32: Felt flat	The fit can be front or back so provides for some nice flexibility on form f...
24	940	33: Huge disappointment	I'm upset because for the price of the dress, I thought it was adorable...
25	857	32: Felt flat	First of all, this is not a pullover style. There is a side zipper. I wouldn't...
26	940	33: Huge disappointment	second of all, the tube feels and looks cheap and the zip that an awkward...

1-Removed the 'Division Name' column as it was not needed for analysis.

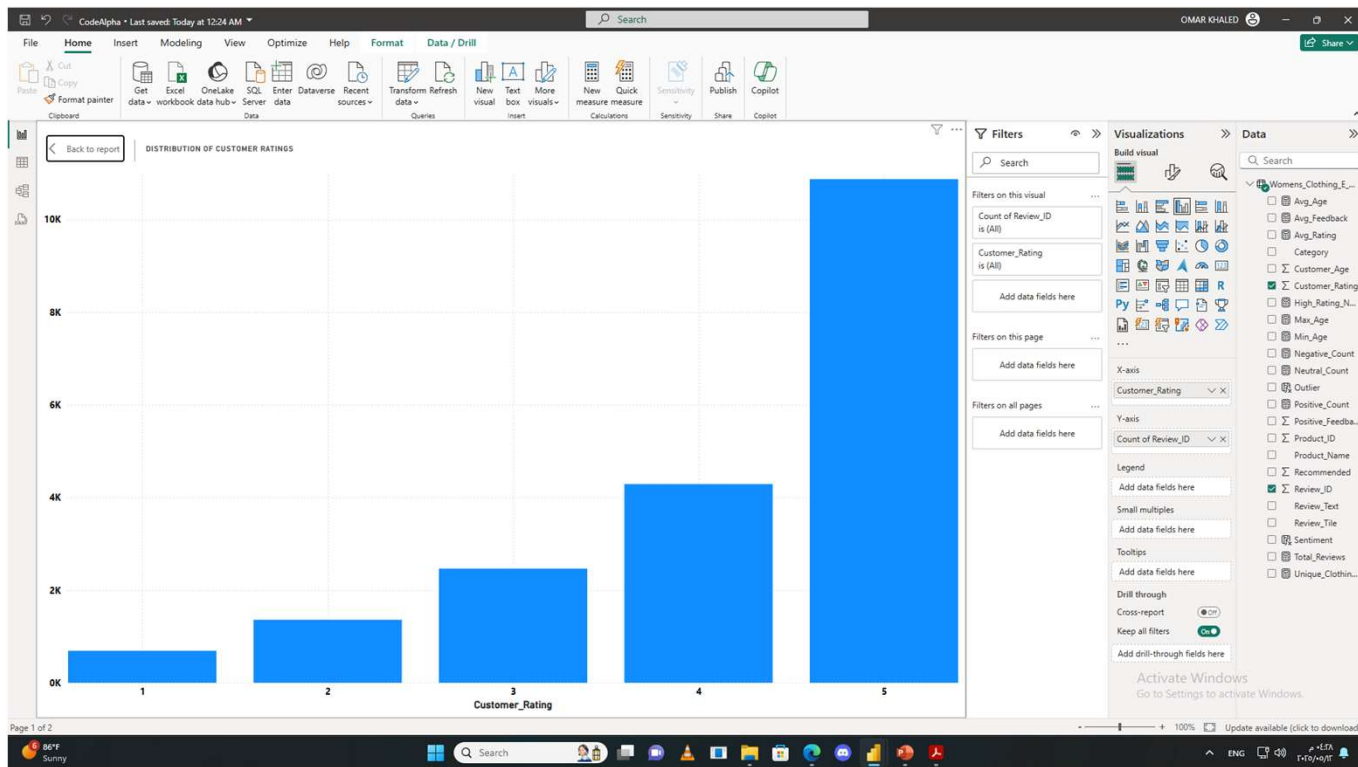
2-Removed empty values in the 'Review Text' column to ensure accurate Sentiment Analysis

3-Renamed columns for clarity

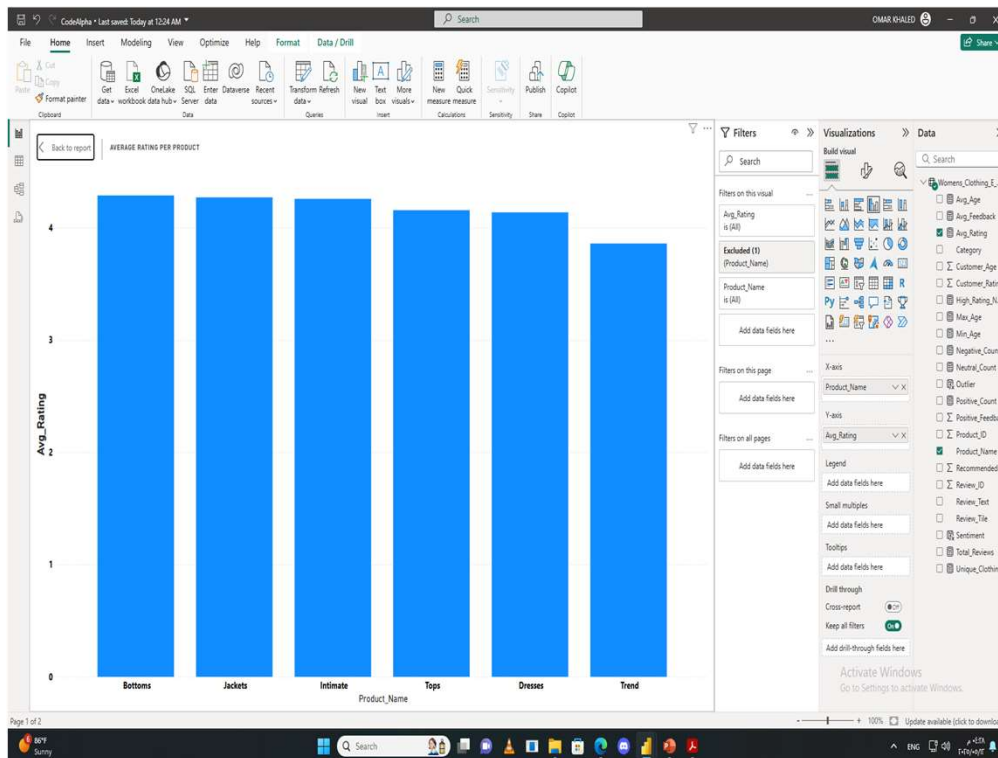
# Data visualization and Analysis Using Dax (EDA)



## Column Chart (Count of Review\_ID by Customer\_Rating)

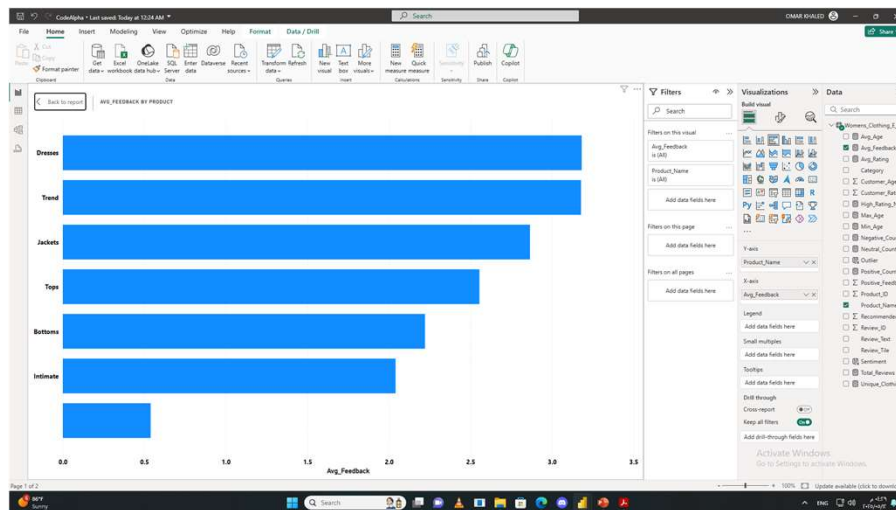


# Column Chart (Average Rating per Product)



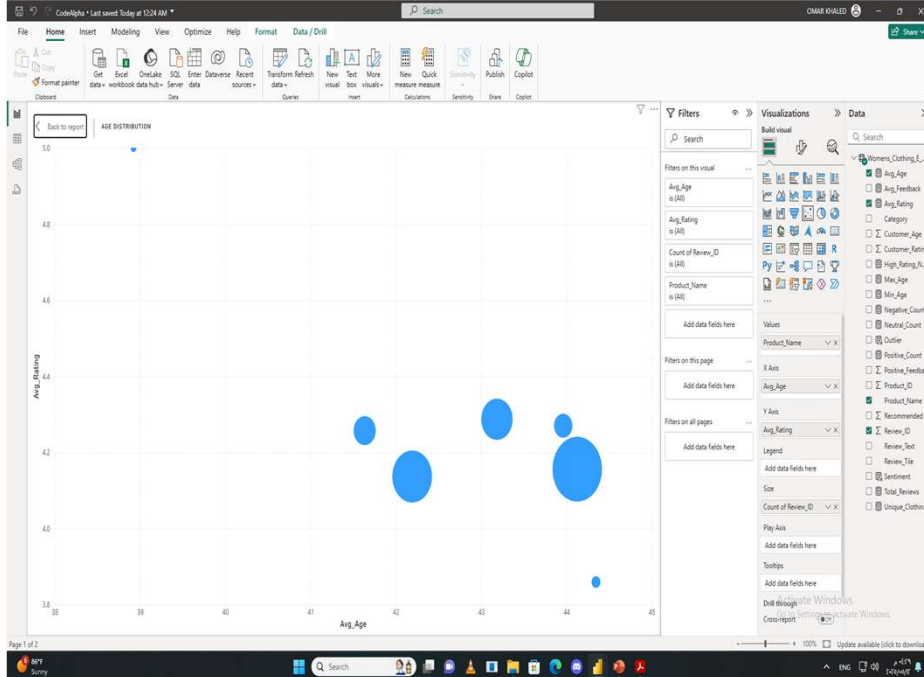
- (Dax Query)
- Avg\_Rating =  
`AVERAGE('Womens_Clothing_E_Commerce_Reviews'[Customer_Rating])`
- Displays average rating per product.

# Bar Chart (Avg Feedback by Product)



- (Dax Query)
- Avg\_Feedback =  
`AVERAGE('Womens_Clothing_E_Commerce_Reviews'[Positive_Feedback])`
- This chart shows the average feedback score for each product.

# Scatter Chart (Age Distribution)



- (Dax Query)
- Avg\_Age =  
`AVERAGE('Womens_Clothing_E_Commerce_Reviews'[Customer_Age])`
- Avg\_Rating =  
`AVERAGE('Womens_Clothing_E_Commerce_Reviews'[Customer_Rating])`
- This scatter plot illustrates the relationship between average age and average rating.

# Table (Outliers in Avg Rating)

## • (Dax Query)

- Avg\_Age =  
`AVERAGE('Womens_Clothing_E-Commerce_Reviews'[Customer_Age])`

Outlier =

IF(

`[Avg_Rating] < PERCENTILE.INC([Avg_Rating], 0.25) - 1.5 *  
 (PERCENTILE.INC([Avg_Rating], 0.75) -  
 PERCENTILE.INC([Avg_Rating], 0.25))`

||

`[Avg_Rating] > PERCENTILE.INC([Avg_Rating], 0.75) + 1.5 *  
 (PERCENTILE.INC([Avg_Rating], 0.75) -  
 PERCENTILE.INC([Avg_Rating], 0.25)),`

"Outlier",

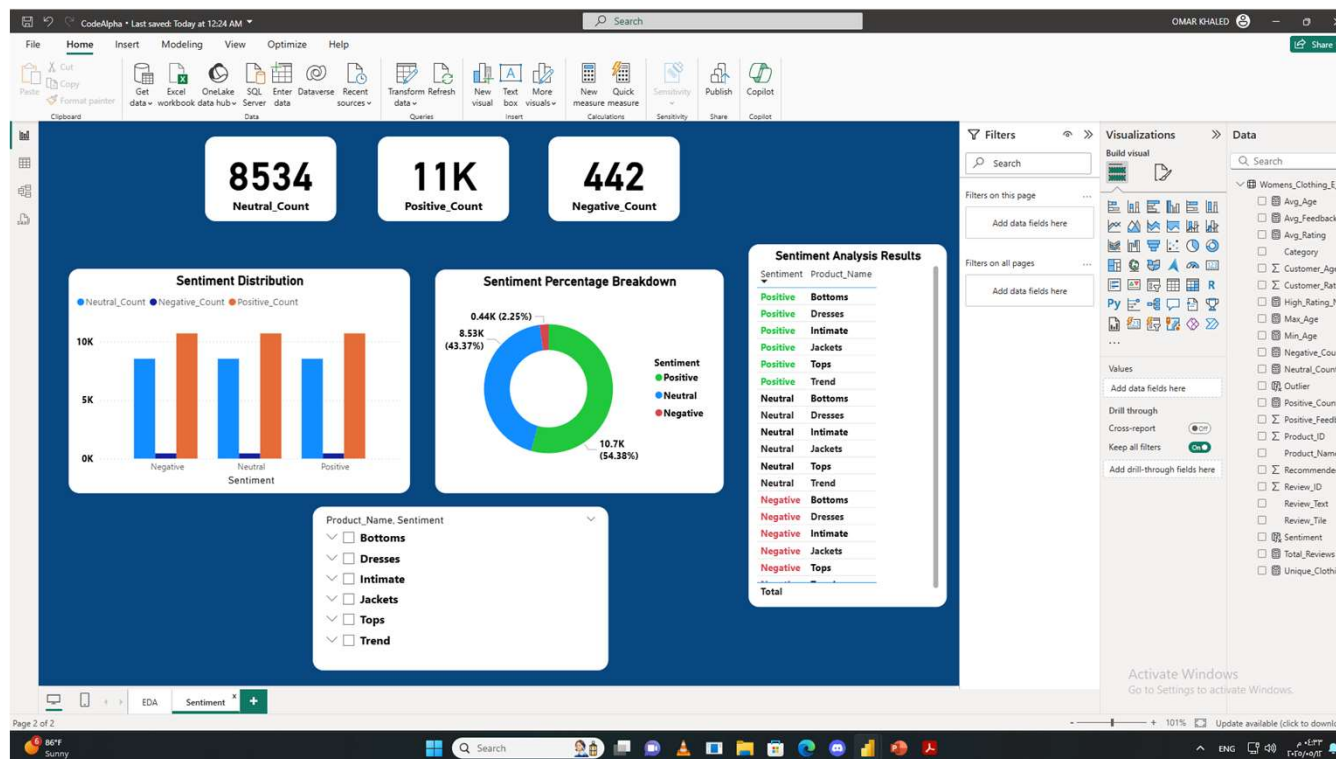
- "Normal")

- this table highlights outliers in average ratings with corresponding average ages and product.

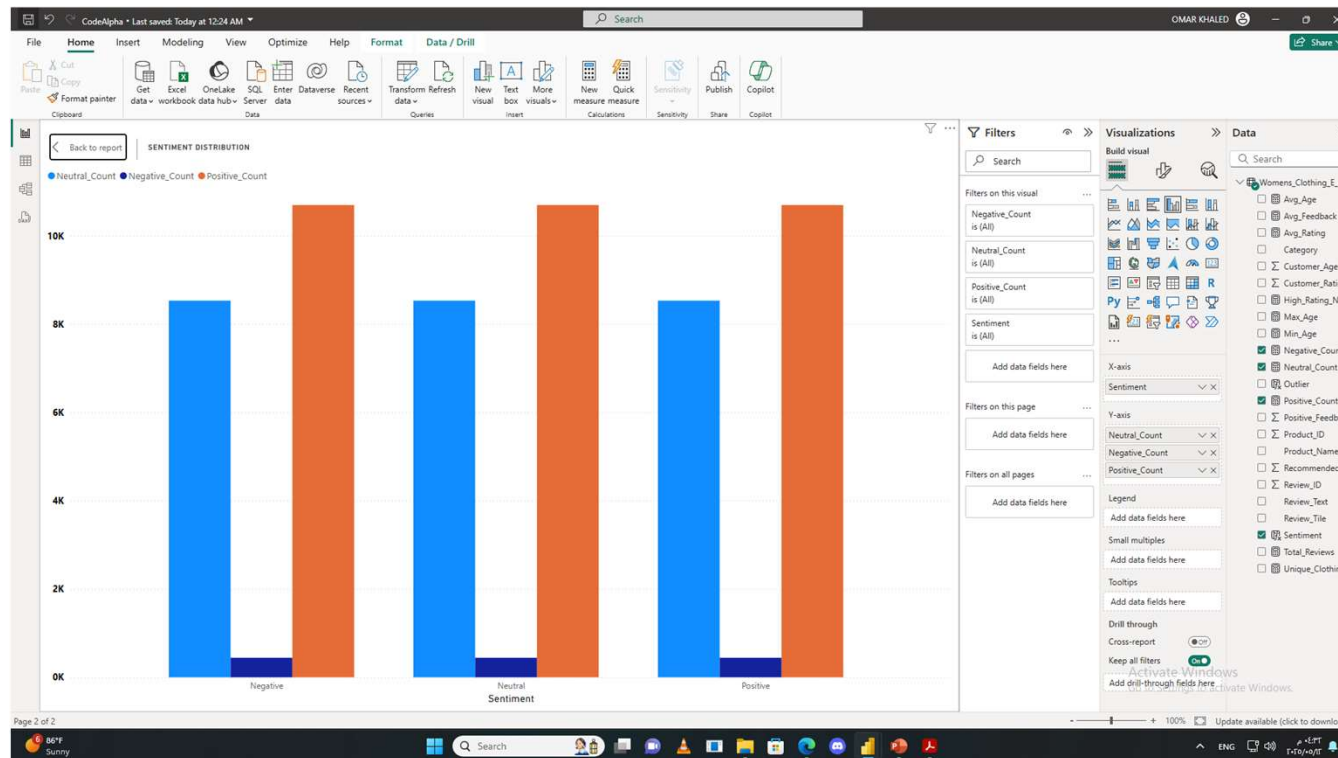
Outlier	Avg_Age	Product_Name
Normal	44.19	Trend
Outlier	46.65	Trend
Normal	44.19	Tops
Outlier	45.62	Tops
Normal	44.10	Jackets
Outlier	42.76	Jackets
Normal	41.71	Intimates
Outlier	40.84	Intimates
Normal	42.18	Dresses
Outlier	42.28	Dresses
Normal	43.28	Bottoms
Outlier	42.13	Bottoms
Total	43.25	



# Data visualization and Analysis Using Dax (Sentiment)



# Column Chart (Sentiment Distribution)



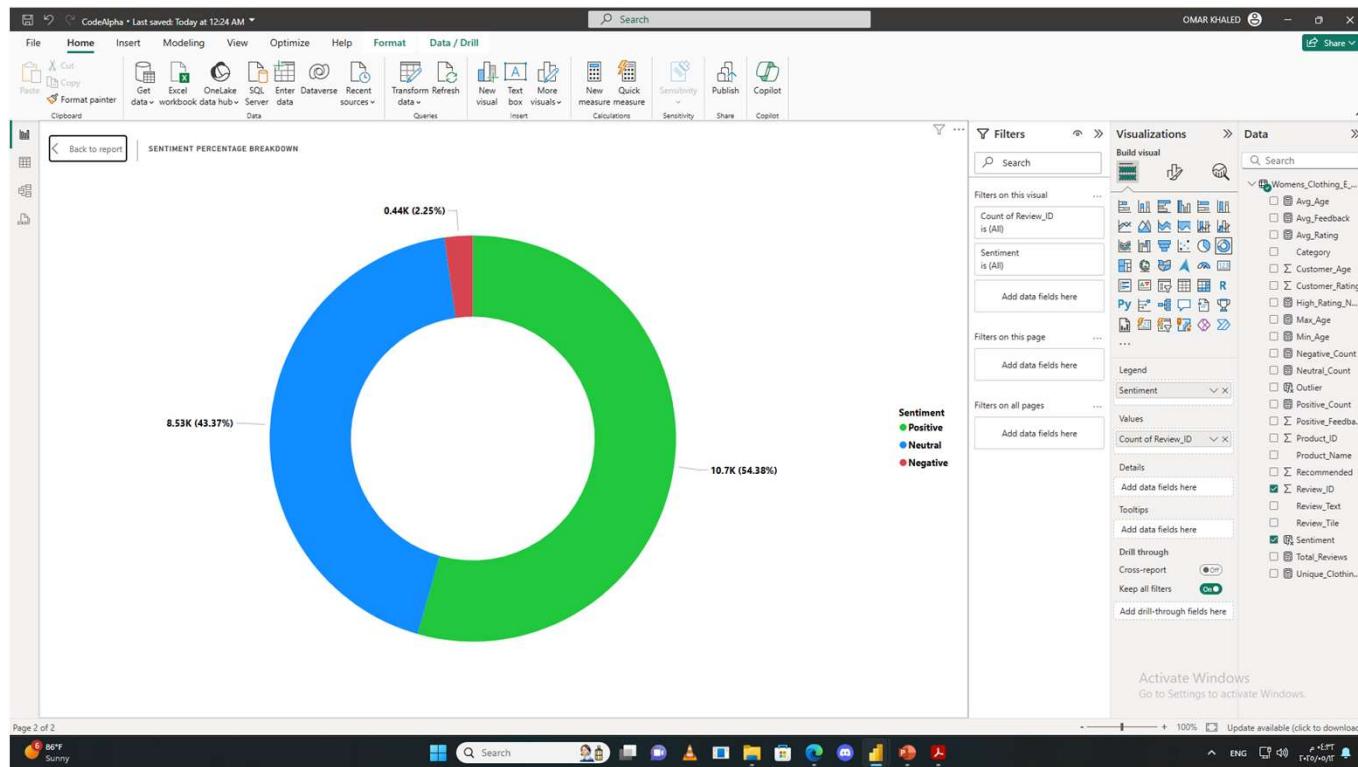
- This column chart displays the count of reviews for each sentiment  
(Neutral, Positive and Negative)

(Dax Query):

Sentiment =

```
IF(
    OR(
        CONTAINSSTRING('Womens_Clothing_E_Commerce_Reviews'[Review_Text], "love"),
        CONTAINSSTRING('Womens_Clothing_E_Commerce_Reviews'[Review_Text], "great")
    ),
    "Positive",
    IF(
        OR(
            CONTAINSSTRING('Womens_Clothing_E_Commerce_Reviews'[Review_Text], "disappointed"),
            CONTAINSSTRING('Womens_Clothing_E_Commerce_Reviews'[Review_Text], "bad")
        ),
        "Negative",
        "Neutral"
    )
)
```

# Donut Chart (Sentiment Percentage Breakdown)



- **This donut chart shows the percentage breakdown of sentiments**

- (Dax Query)

- Sentiment =

```
IF(  
    OR(  
        CONTAINSSTRING('Womens_Clothing_E_Commerce_Reviews'[Review_Text], "love"),  
        CONTAINSSTRING('Womens_Clothing_E_Commerce_Reviews'[Review_Text], "great")  
    ),  
    "Positive",  
    IF(  
        OR(  
            CONTAINSSTRING('Womens_Clothing_E_Commerce_Reviews'[Review_Text], "disappointed"),  
            CONTAINSSTRING('Womens_Clothing_E_Commerce_Reviews'[Review_Text], "bad")  
        ),  
        "Negative",  
        "Neutral"  
    )  
)
```

- )

# Table (Sentiment Analysis Results)

CodeAlpha • Last saved: Today at 12:24 AM

OMAR KHALED

File Home Insert Modeling View Optimize Help Format Data / Drill

Clipboard

Get data • Excel OneLake SQL Server Data Warehouse Recent sources

Transform data • Refresh data • Queries

New visual Text box More visuals • Insert

New Quick measure measure Calculations

Sensitivity Publish Copilot

Back to report

SENTIMENT ANALYSIS RESULTS

Sentiment	Product_Name
Positive	Bottoms
Positive	Dresses
Positive	Intimate
Positive	Jackets
Positive	Tops
Positive	Trend
Neutral	Bottoms
Neutral	Dresses
Neutral	Intimate
Neutral	Jackets
Neutral	Tops
Neutral	Trend
Negative	Bottoms
Negative	Dresses
Negative	Intimate
Negative	Jackets
Negative	Tops
Negative	Trend
Total	

Filters

Search

Filters on this visual

Excluded (2)

Neutral (Sentiment) = (Pr...

Product\_Name

is (All)

Sentiment

is (All)

Add data fields here

Filters on this page

Add data fields here

Filters on all pages

Add data fields here

Visualizations

Build visual

Search

Columns

Sentiment

Product\_Name

Drill through

Cross-report

Keep all filters

Add drill-through fields here

Activate Windows

Go to Settings to activate Windows.

Page 2 of 2

86°F Sunny

Search

ENG

Update available (click to download)

## This table lists products with their sentiment classification (Positive - Green, Neutral - Blue and Negative - Red)

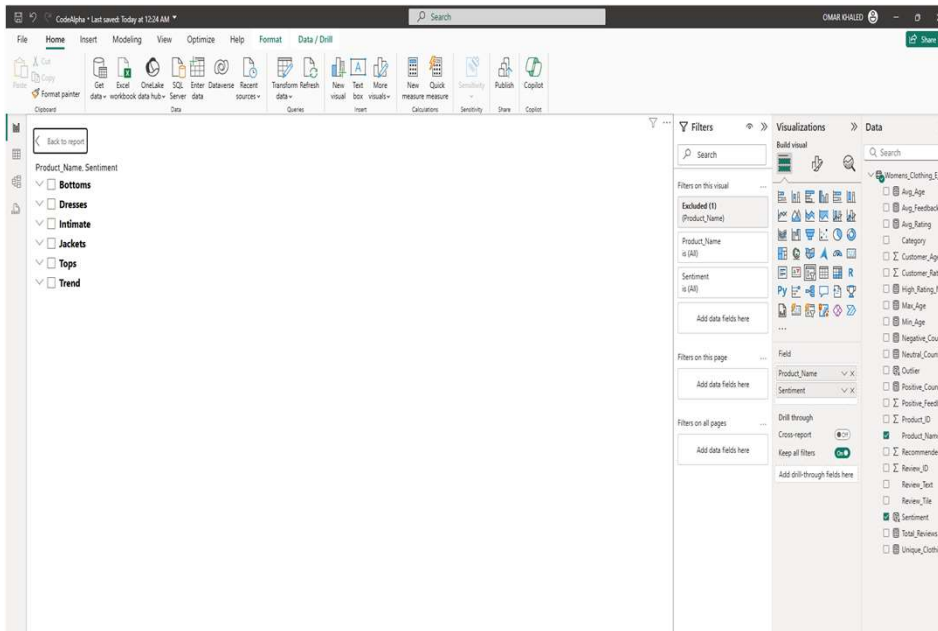
- (Dax Query)

- Sentiment =

```
IF(  
    OR(  
        CONTAINSSTRING('Womens_Clothing_E_Commerce_Reviews'[Review_Text], "love"),  
        CONTAINSSTRING('Womens_Clothing_E_Commerce_Reviews'[Review_Text], "great")  
    ),  
    "Positive",  
    IF(  
        OR(  
            CONTAINSSTRING('Womens_Clothing_E_Commerce_Reviews'[Review_Text], "disappointed"),  
            CONTAINSSTRING('Womens_Clothing_E_Commerce_Reviews'[Review_Text], "bad")  
        ),  
        "Negative",  
        "Neutral"  
    )  
)
```

- )

# Slicer (Product Name & Sentiment)



- **This Slicer allows filtering the dashboard by Product Name to focus on specific product.**



# Conclusion

**I am honored to present this project, CodeAlpha Ecommerce Analysis, to CodeAlpha as part of my internship. I hope I have successfully met all the requirements for the tasks (EDA, Visualization, Sentiment Analysis). Thank you for the opportunity**