NAME: HARPREET KAUR
STUDENT ID: 100357359
SUBMITTED TO: MISS NASIM

Transformation of Dataset:

For transformation in **Customer.csv** file merged the first and last name in a new column and labeled as a full name by transforming data and using merge in additional columns. And used Date in Add column to extract the option year from the birthdate column and labeled as birth_year. For has_children used conditional statement options where I labeled that if total children are equal to 0 then has_children is equal to 'N' else 'Y'. For current age used age in date options from add columns and then formatted by duration to total years and using whole number. For Priority of customers inserted column and used **formula IF(Customers[homeowner]== "Y" && Customers[member_card] == "Golden", "High", "Standard").**

For the **Product.csv** file to calculate discount_price added the custom column to multiply 0.90 to product retail price and then chooses the option to fixed decimal number then applied rounding tool to round to 2 digits.

For **store.csv** file merged the three-column store_city, store_country, and store_state as full addresses using transforming the data and using merge in add columns by setting up custom and using comma and dash in options. And to extract the area code use add column again and by choosing character before the dash ('-') in the extract option.

For **Calendar.csv** file in transforming the data and using add column and also by choosing date options extracted Name of Day, Start of Month, Name of Month, Quarter of year, End of Month and Year from options. And for the Start of the week inserted a new column to add a DAX formula where the start week is Monday so inserted Weekday ('calendar'[Name of Day],2) and for Weekend used DAX formula **IF('Calendar'[Name of Day]== "Sunday" || 'Calendar'[Name of Day]== "Saturday", "Yes", "No").** If weekend return Yes else No.

To combine the **transactions.csv** file of 1997 and 1998 used append method in transform.

Measures:

Total of 22 measures was added to data tables (result attached in the pbix file as all measures)

Visualization Summary

By using **Map** the bigger the bubble shows the highest revenue, profit margin, more transactions, and return in the district Tacoma, Salem, of region North West followed Mexico central, and South West whereas the smaller the bubble shows the less revenue in the other regions. If we see 60 days revenue by **Funnel chart** in the sales it shows North West has more 60-Days revenue of $89405 followed by Mexico Central and lesser is seen in the central west region (districts San Francisco) with revenue of $1106. Last Month's revenue, transactions, profit, and return are also high in North West followed by South West, Mexico Central, Canada West, Mexico South, Mexico West, and Central West. Whereas **Pie chart** elaborates that Weekend transaction is more in Mexico South (33.79%) and South West (32.09%) region and lesser in Central West (23.14%)

Based on Brand and Product the Hermanos brand has more transactions where products Potato, Green Pepper are sold most and also the brand has the highest revenue of $56,659. Whereas king brand has lesser total transactions but the product king rosy sunglasses is sold most and has total revenue of $446. **KPI Chart** shows that Total Revenue goes to +5.6% from Last Month Revenue. Stacked Column Chart shows that in 1997 weekend transactions are more in December which is 2.9k and in 1998 transactions are more in November which is 5.6k. **TreeMap** explains YTD Revenue is more in USA country followed by Mexico and Canada. The **donut Chart** shows that the Revenue target was 49.46% in two years but achieved revenue was 50.54%.