Fleetcor Project - Account Management Impact and Visualization

EXECUTIVE SUMMARY

1) Write-off saving analysis: Summarize write-off in different views by line of business, portfolio, treatments, etc. Some of them are fuel customers, universal customers, and company card. Practically, we are looking at segmentation analysis to realize customer behavior We are looking for cost reduction, revenue, retention-attrition.

Solution:

a. The top factors for customer performance include WO_AMOUNT, days_past_due, Segment_Score, NSF_AMT, CREDIT_LIMIT
b. The best customers are those with days_past_due = 0 (lowest), NSF_AMT = 5, WO_AMOUNT = 60, CREDIT_LIMIT > 5K.
c. We used the Multi-Variable Linear Regression model with R to arrive at the conclusions for this question.

2) Attrition analysis: Summarize change in spend, gallon pumped and revenue in different views by line of business, portfolio, treatments, etc.

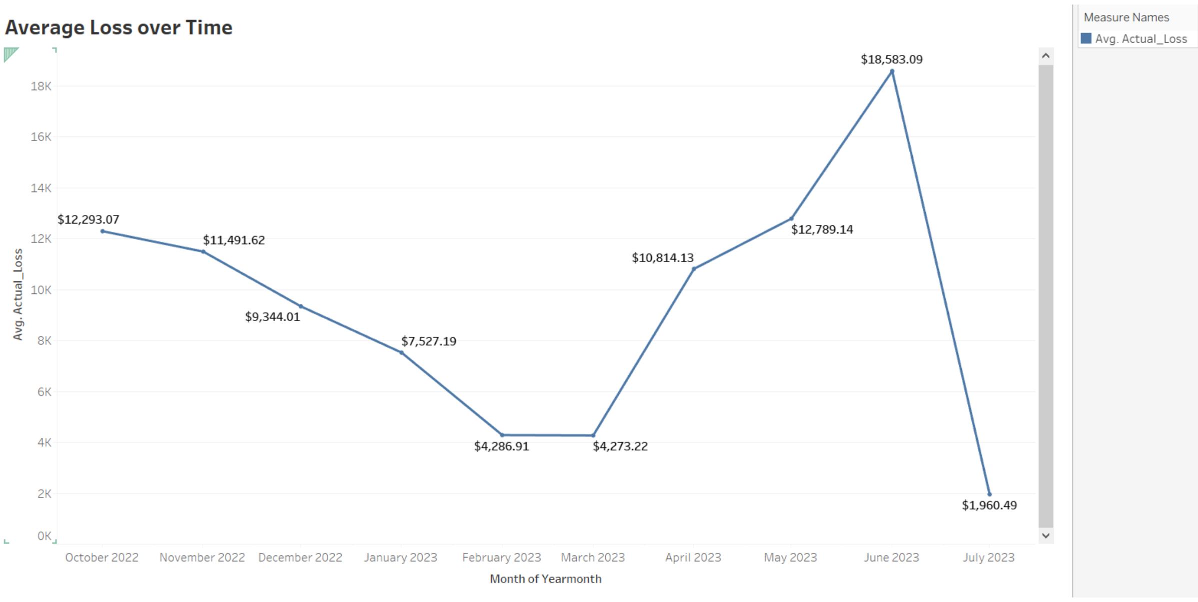
Solution:

a. The top factors for customer performance include GALLONS, FUEL_SPEND, NONFUEL_SPEND, TOT_SPEND
b. We are still working on this.
c. We are still working on this.

3) A tableau dashboard which contains the content above

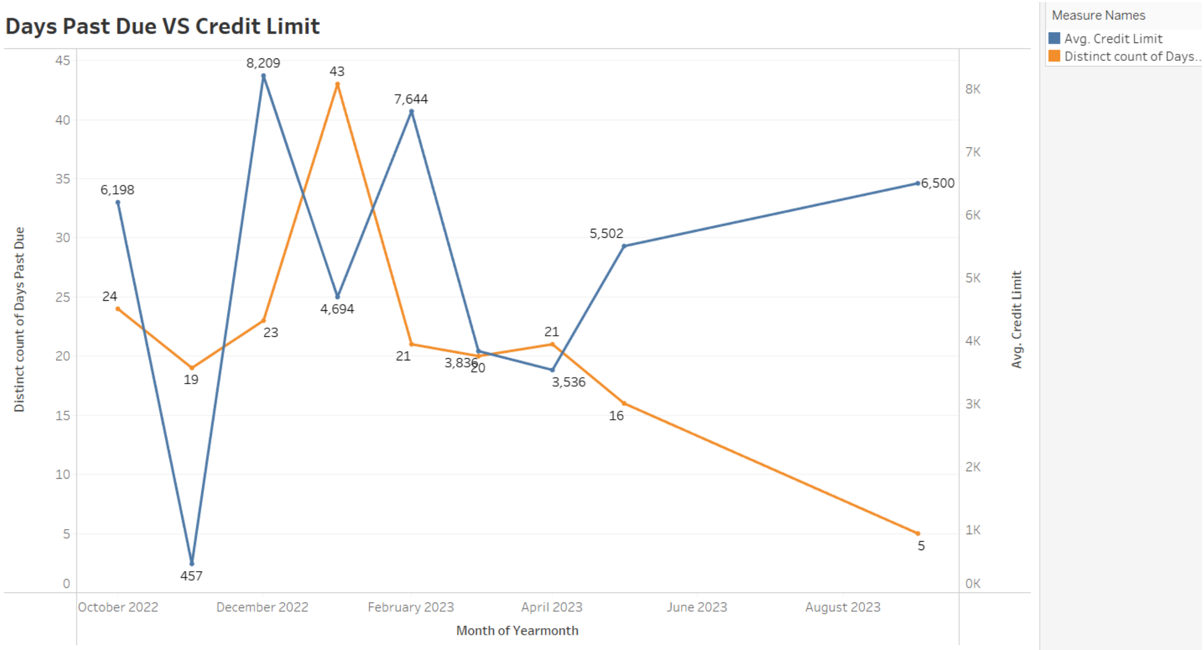
Solution:

1.



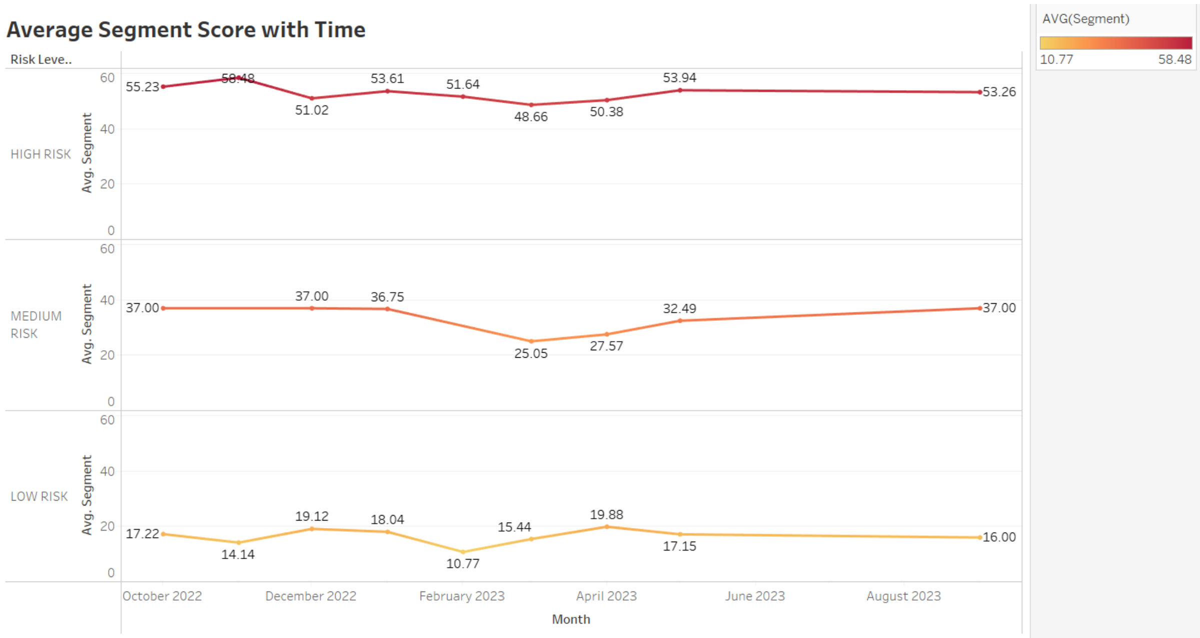
The line graph titled “Average Loss over Time” depicts the average write-off amounts plus average residual current balance from October 2022 to August 2023. Notably, the graph shows significant fluctuations in average loss during this period. In October 2022, the average write-off amount was at peak at approximately $12,293.07, and gradually decreased to $4286.91 by February 2022. It inflated after March 2023 upto $18583.09 in June 2023. Which reflects their highest loss till date. After treatment, it dropped sharply to $1960.49 by June 2023. This graph shows the effectives of the strategies used by Fleetcor to reduce their actual loss amount, while the company was performing really well till March 2023.

2.



The line graph titled "Days Past Due VS Credit Limit" depicts the relationship between the average credit limit and the distinct count of days past due. Notably, the orange line represents the distinct count of days past due, which exhibits fluctuations over time. In October 2022, there was a significant increase in days past due (around 24 days), and January 2023 also had a high count of days past due (approximately 43 days). Conversely, the blue line represents the average credit limit, which started around 6,198 in October 2022, peaked at approximately 8,209 in December 2022, and experienced fluctuations throughout the period. It can be said that the relationship between DAYS_PAST_DUE and CREDIT_LIMIT is inversely proportional. The customers with a smaller number of DAYS_PAST_DUE are likely to have a high credit limit and are really good customers, as for the customers with a larger number of DAYS_PAST_DUE they will have a relatively lower credit limit and are more risky customers (many of them may have to be written-off in the future).

3.



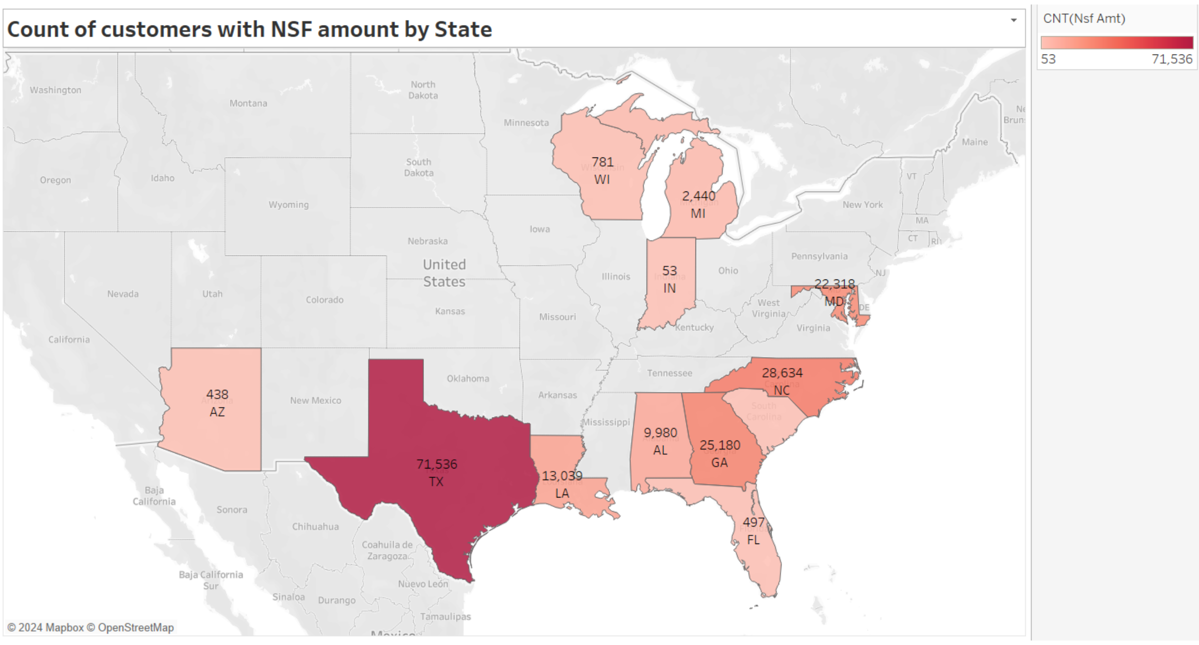
Examining "Average Segment Score with Time" reveals risk-based customer distribution from October 2022 to August 2023. High Risk Stability: The high-risk segment remains relatively stable around a score of 50, with slight fluctuations.

Medium Risk Fluctuation: The medium-risk segment shows a decrease and then an increase, returning to approximately the starting point by August.

Low Risk Decline: The low-risk segment consistently decreases over time, indicating a reduction in the number of low-risk customers or a shift in their risk level.

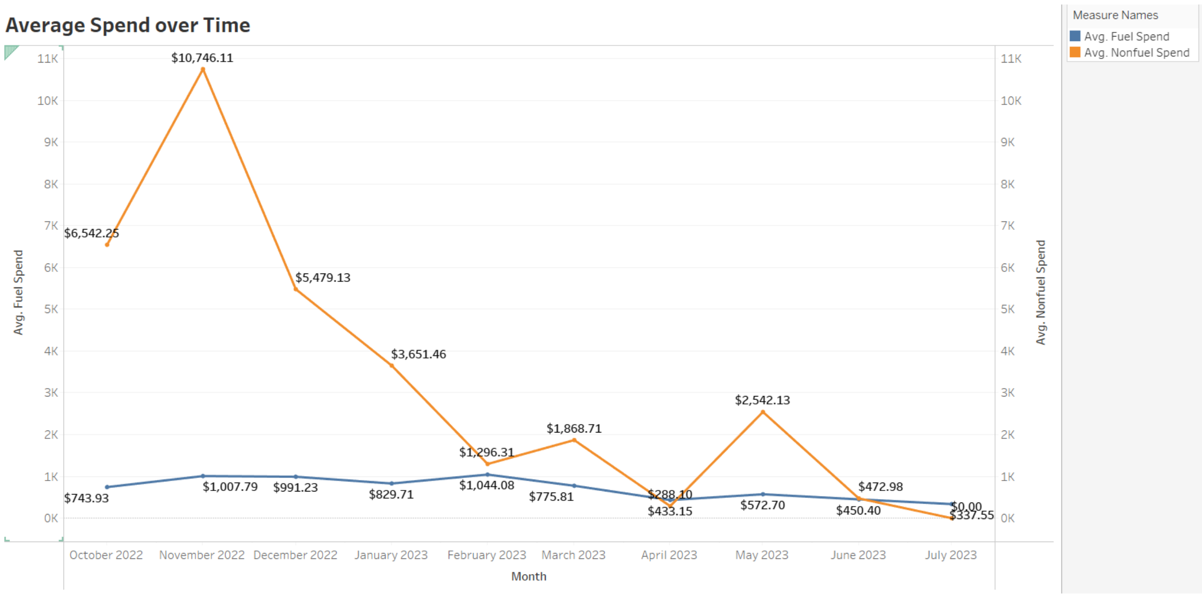
These trends suggest that while high-risk customers maintain their risk level, there is a notable change in the medium and low-risk segments, which could be indicative of shifting customer profiles or the effectiveness of risk management strategies. This indicates that the customers with MEDIUM RISK are more likely to improve their risk assessment with proper risk management strategies(perhaps the company can provide such customers with some perks if they pay their credit card bill on time like rewards points which can be redeemed later), and as for the customers with HIGH RISK they should be written-off as they are unlikely to improve their risk assessment(the company will only incur more losses while trying to preserve these group of customers). The customers with LOW RISK are the best customers as they have a great credit score due to them being timely with their credit card bill payments.

4.



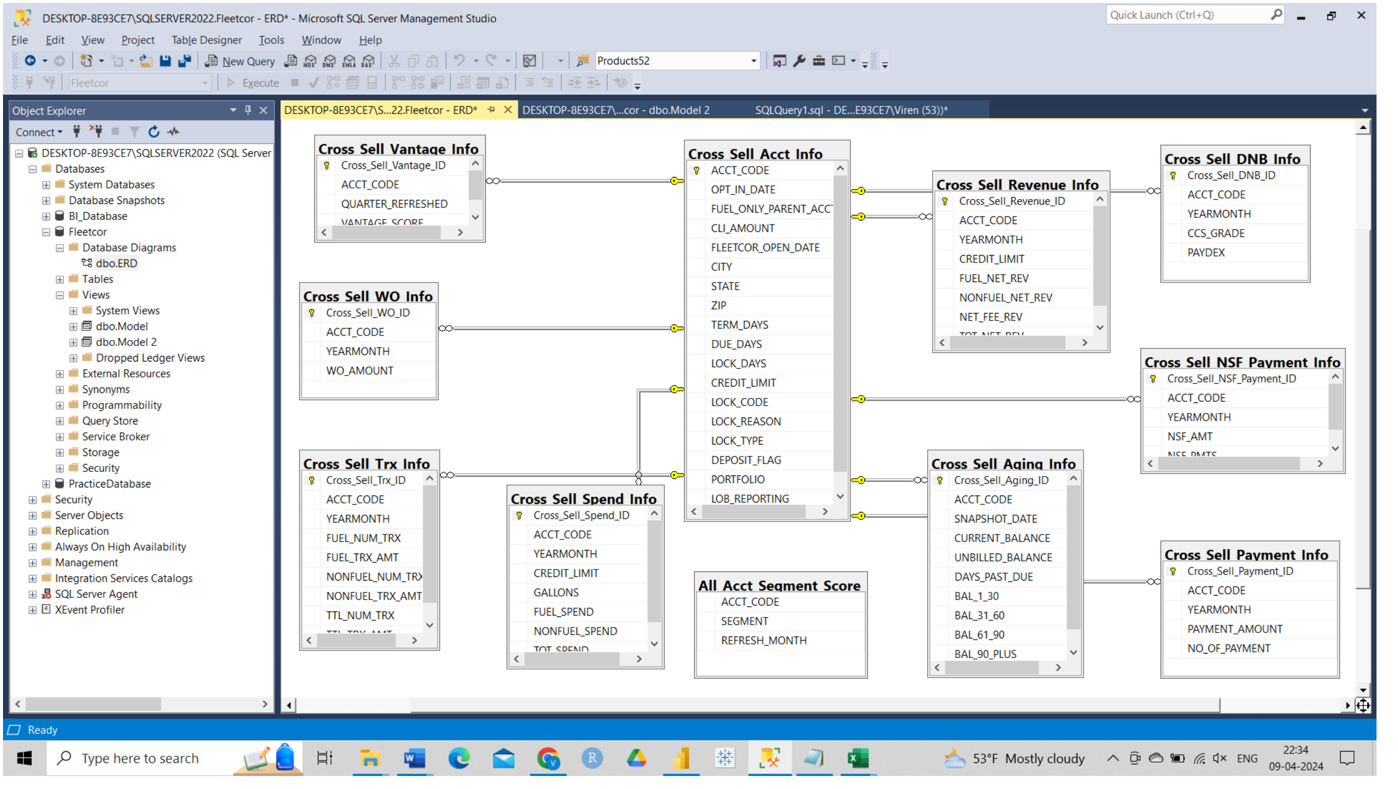
The map displays the count of customers with Non-Sufficient Funds (NSF) amounts by state in the United States. This color-coded map represents the number of customers with NSF amounts in each state. Texas (TX) has the highest count at 71,536, shown in dark red. Other states like Georgia (GA), North Carolina (NC), and Maryland (MD) also have significant counts. Many states have lower or no data available and are coloured in light grey. This indicates that customers from the above regions have a high possibility of being written-off and the company needs to rethink their strategies for tackling such areas.

5.



By looking at the above visual, avg fuel spend rarely crosses the threshold of $1000 while, avg non fuel spend reaches upto $10,000 and then sharply drops off indicating a significant amount of people whose account have been locked mainly due to non payment of their credit card balance. The company needs to focus on their group of customers who cannot keep up with their payments even with high credit limits.

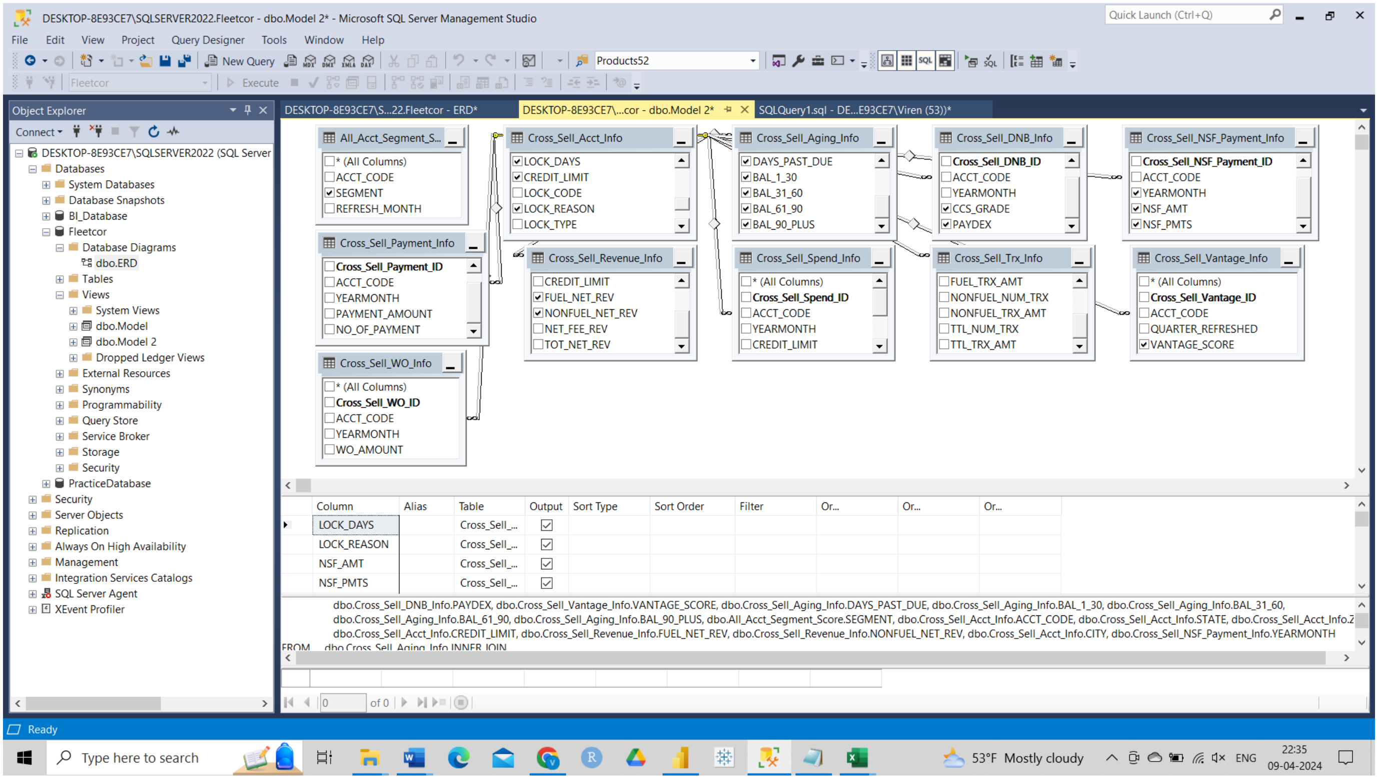
<u>MAIN SECTION</u>



Steps:

1. Clean and modify the data.
2. Add in SQL Server database.
3. Create ERD.

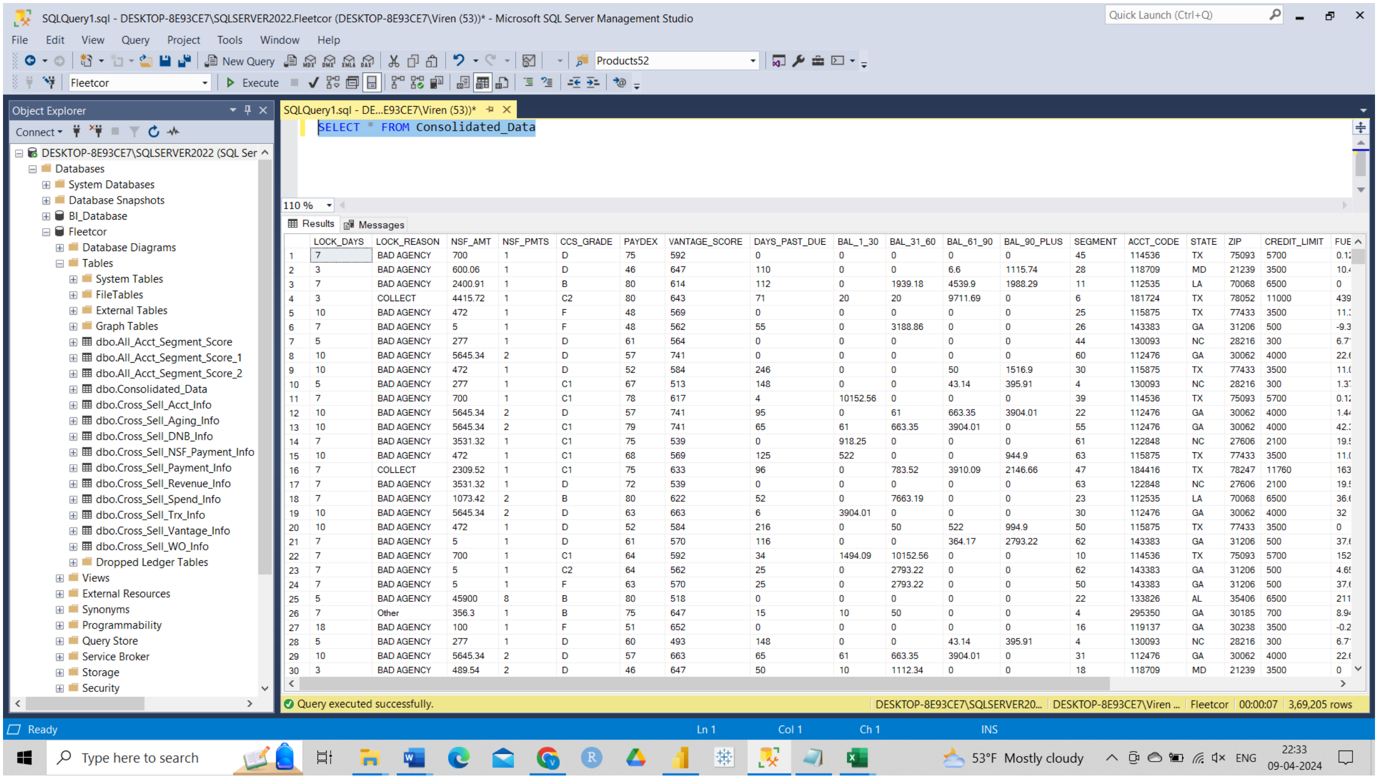
❖ MODEL VIEW OF DATA:



Steps:

1. Create View
2. Run the query.

❖ CONSOLIDATED DATA:



Steps:
1. Select random data (because in this project, data is huge to execute)
2. Remove null records by executing the query
3. Save the data in CSV format.

Group 2 Members:

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