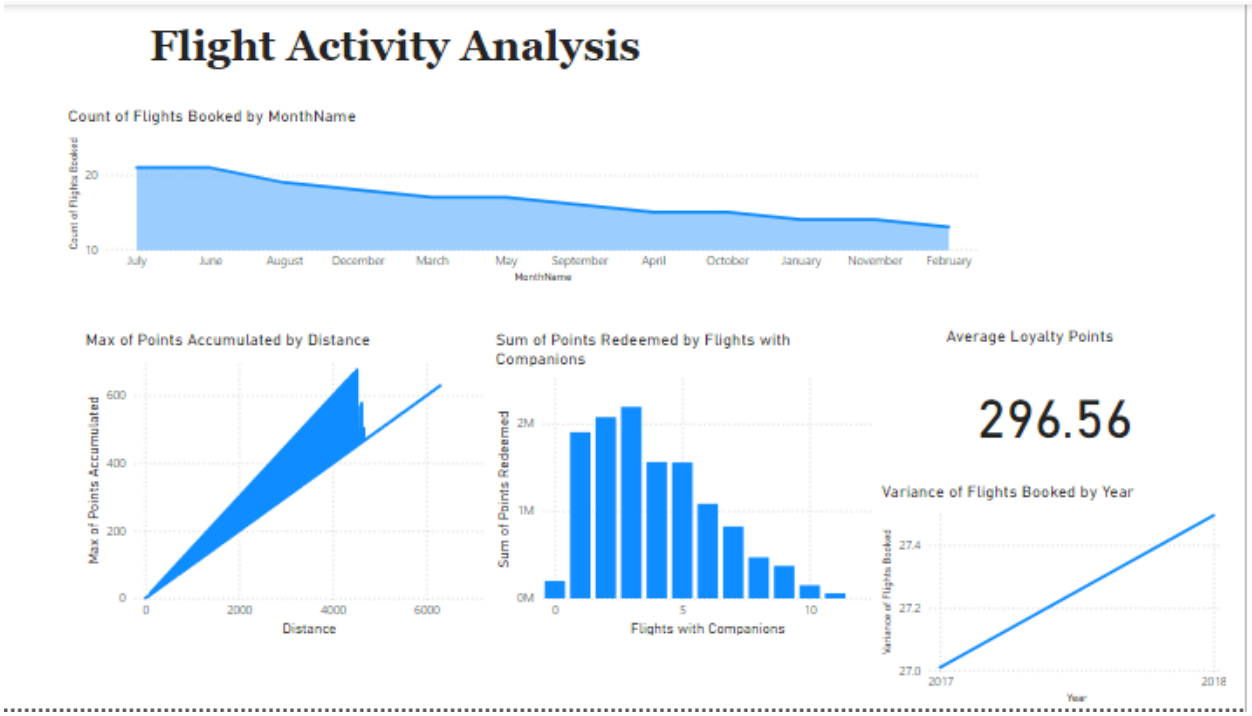
FlyingWhale Airline wanted to better understand its customers and improve its services. So, I analyzed customer flight records and loyalty program data. This study aimed to find out how customers travel, what they like, and how to keep them loyal, helping the airline make informed decisions. Data analysis of FlyingWhale Airline's customer flight and loyalty data revealed travel patterns and customer behavior. The insights gained will help improve customer experience, retention, and loyalty programs.

Flight Activity Analysis

Key Insights

- Flight bookings were highest in July and June.
- People like to travel in Summer.
- People are happy travelling with three companions were redeeming the most points.
- Positive Correlation between Flight bookings and Distance covered.
- It means fewer companions but at least three, most the joy.

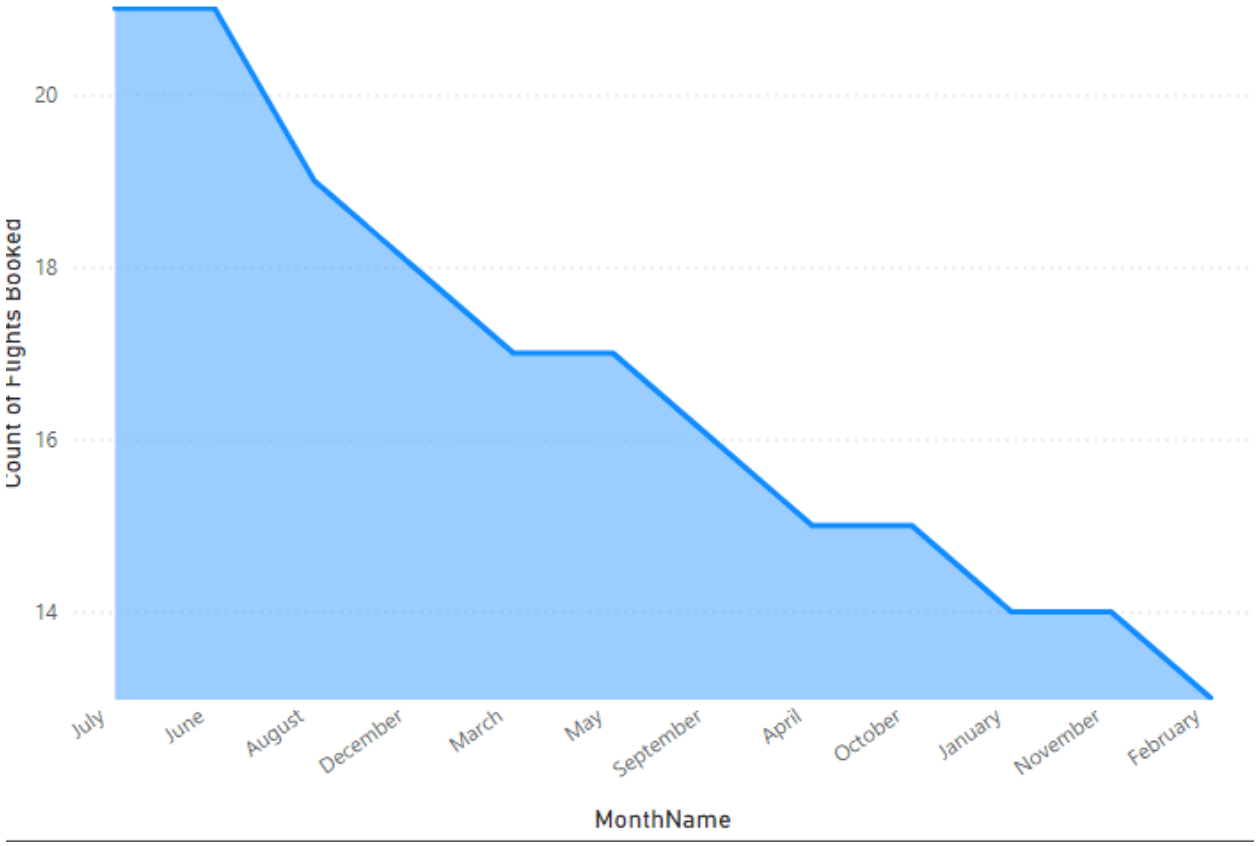
Dashboard 1



I made another column with MonthName to show the proper name format for months instead of count. I used this query

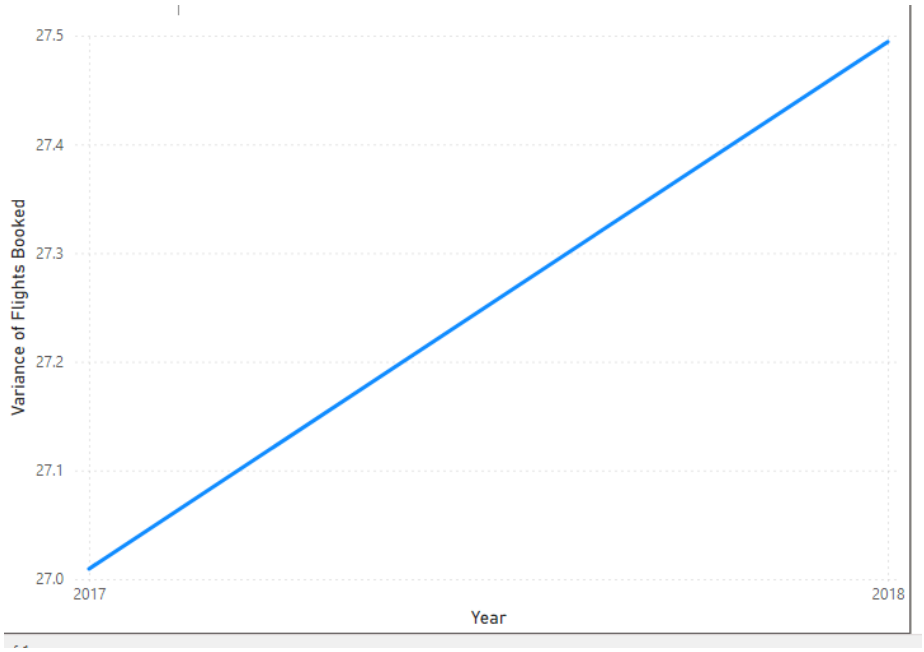
```
MonthName =
SWITCH(
    'Customer Flight Activity - Customer Flight Activity'[Month],
    1, "January",
    2, "February",
    3, "March",
    4, "April",
    5, "May",
    6, "June",
    7, "July",
    8, "August",
    9, "September",
    10, "October",
    11, "November",
    12, "December",
    BLANK()
)
```

I made a stacked area chart to show the monthly flight booking patterns.

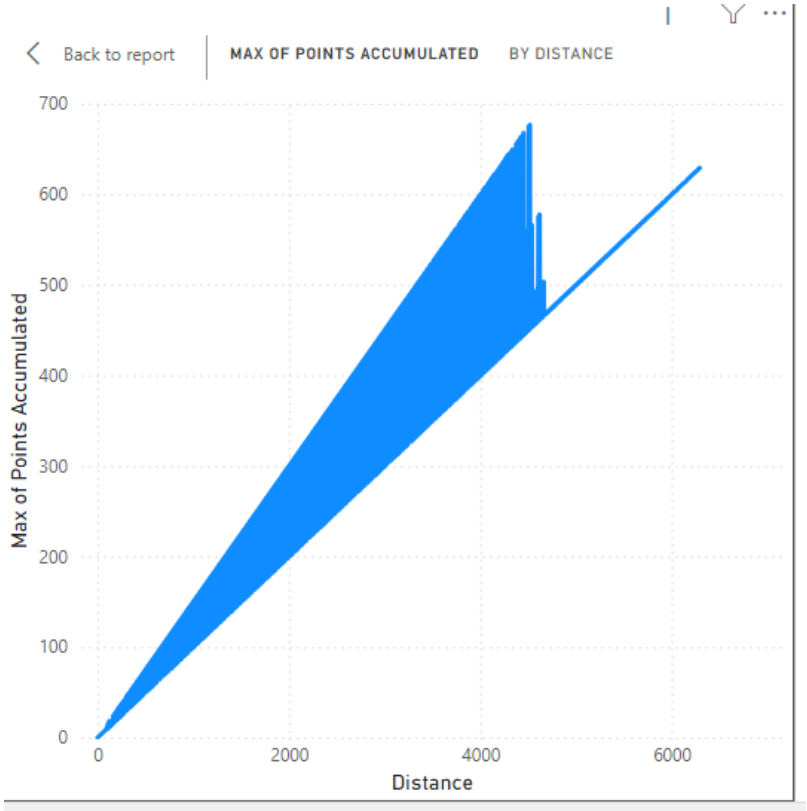


It was highest in July and June and lowest in the Feburary. This shows people were traveling more in the summer breaks.

When I calculated the variance(deviation from average) of flights booked in year 2017 to 2018, I got a little increase in the pattern in 2018.

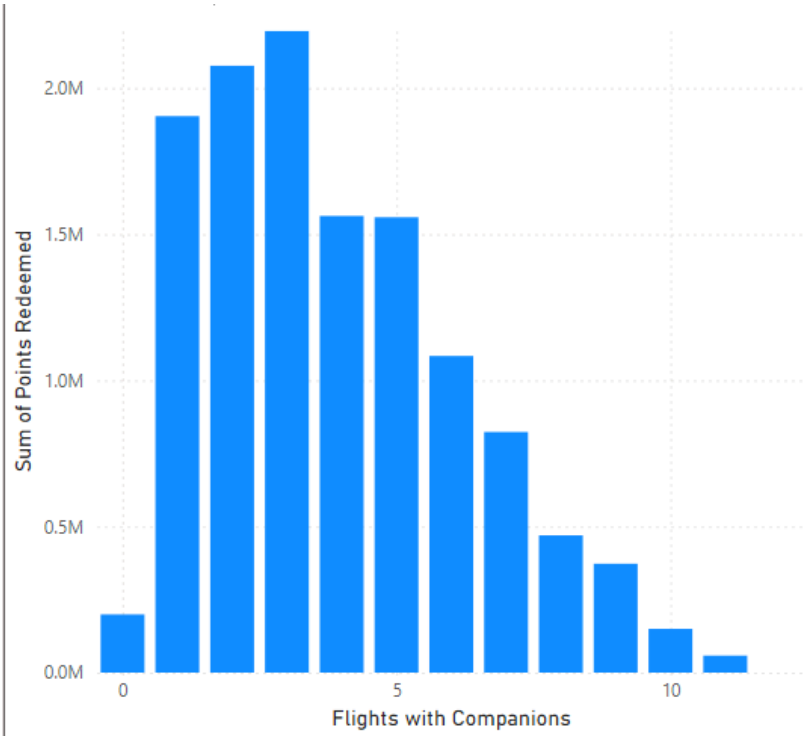


I drawed a line chart to Explore the correlation between flight distances and loyalty points accumulated.
It Showed a positive correlation between the flight distance covered and loyalty points accumulated by customers.



I created a measure for Average Points Accumulated.
The result was

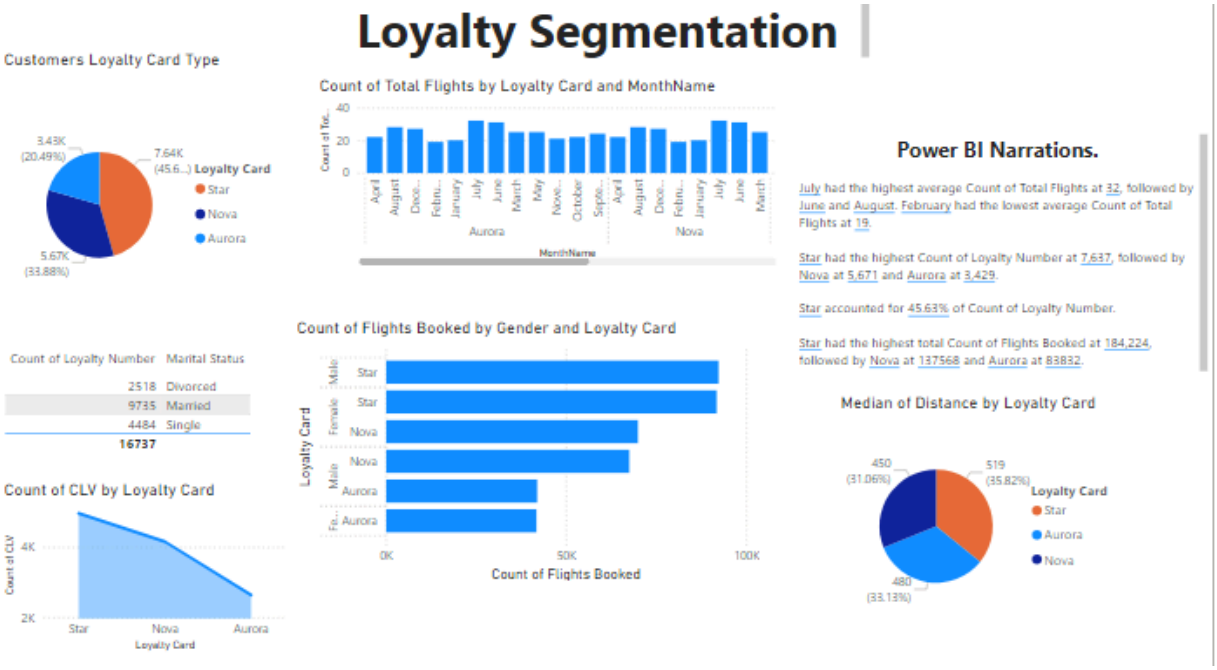
I assessed the impact of companion bookings on loyalty points redeemed. With a Line and stacked column chart, I came to the conclusion that Flights booked with three companions were redeeming the most points. It gradually decreased when the number of companions was reduced. So with the Maximum companions, i.e., 11 I saw the lesser impact.



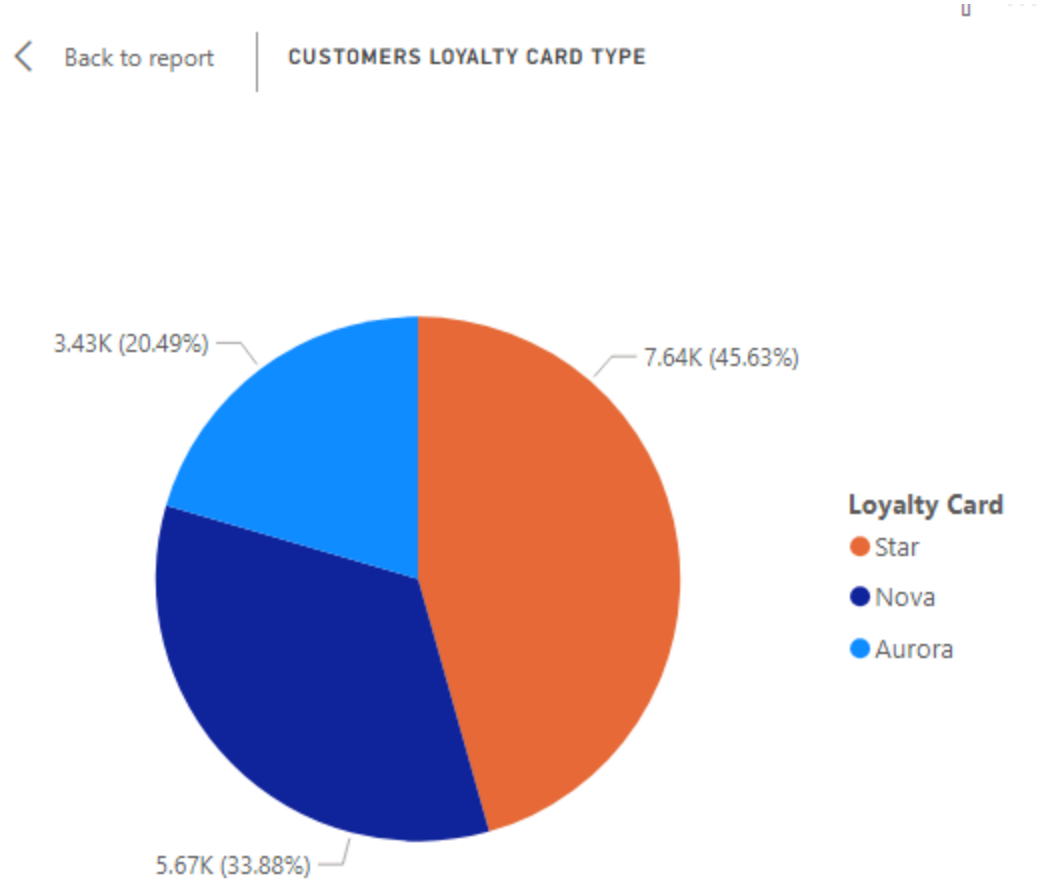
Dashboard 2: Loyalty Segmentation

Key Insights

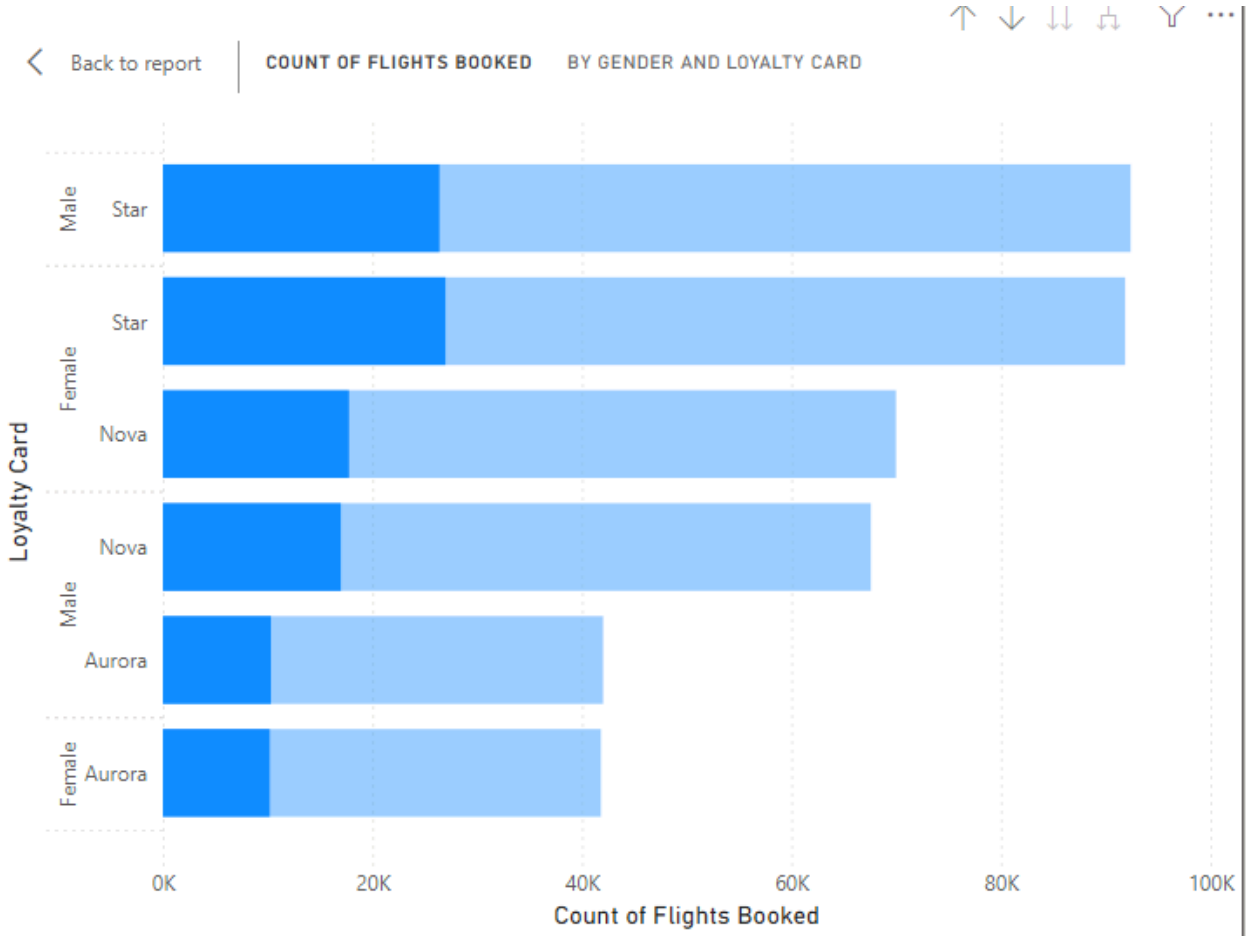
- Most people had Star tier Credit Card to book Flights.
- However, people having the “Nova” tier had traveled the most distance.
- Married people traveled the most, which concludes the previous analysis, i.e., people with three companions.



I segment customers based on loyalty card status.
It showed majority of the customers had Star status on their loyalty card.



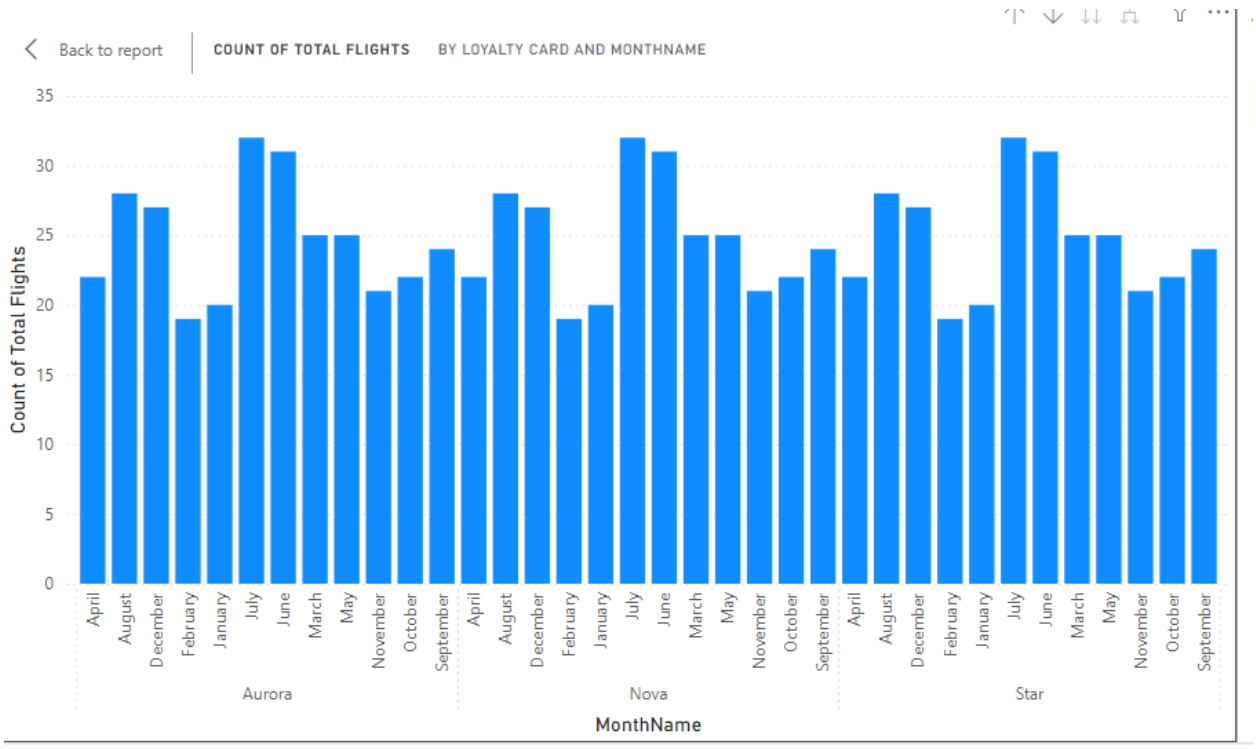
I showed a Total number of flights by Loyalty Card across months. It depicted members having Aurora as loyalty card status traveled most in July. However, people having any card status traveled in the Month of July majorly.



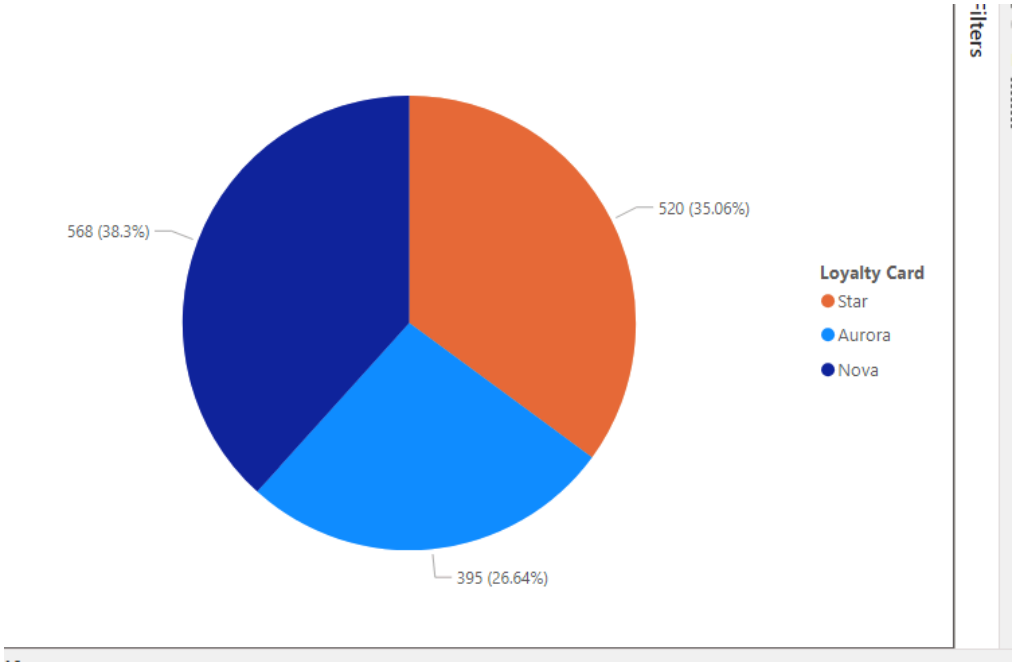
Demographics and behaviors of customers
I depicted Number of loyalty members by marital status

Count of Loyalty Number	Marital Status
2518	Divorced
9735	Married
4484	Single
16737	

Show flights booked by loyalty card and broken up by gender.
It visualized that the number of males and females was almost the same. However, males were slightly more common in the Star and Aurora categories. In the Nova category, Females succeeded. However, persons with the star category Loyalty card were higher than those with other qualities.



Here is the representation of the median distance traveled by different loyalty card tiers. Here people with the Nova card tier had travelled the highest distance. And people having the Aurora card tier had the lowest traveled median distance.



These are the insights generated with the PowerBI Narrations

Power BI Narrations.

July had the highest average Count of Total Flights at 32, followed by June and August. February had the lowest average Count of Total Flights at 19.

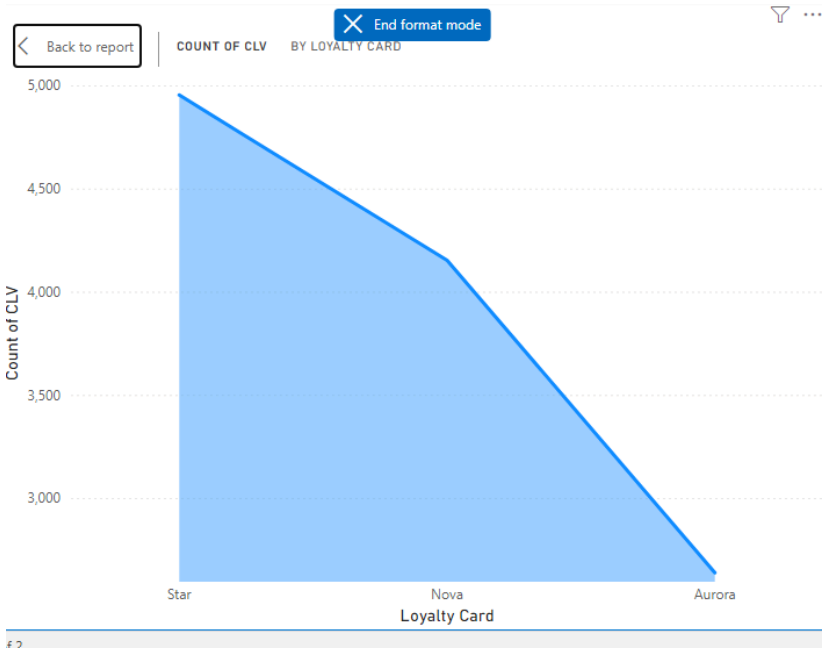
[]

Star had the highest Count of Loyalty Number at 2,208, followed by Nova at 1,431 and Aurora at 845.

Star accounted for 49.24% of the Count of Loyalty Number.

Star had the highest total Count of Flights Booked at 53,376, followed by Nova at 34752 and Aurora at 20520.

Which credit card tier on average has customers with the highest Customer Lifetime Value?
I identified trends in Customer Lifetime Value (CLV) across loyalty segments. People having star credit card tier have most CLV.

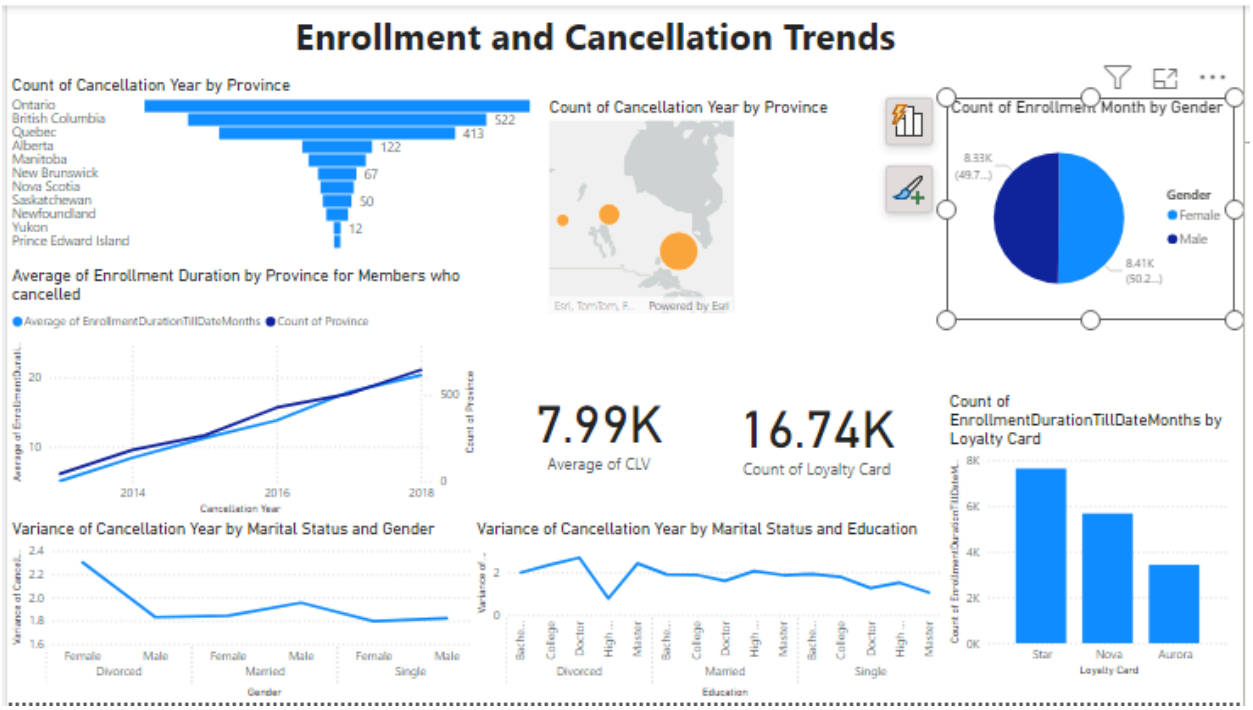


Enrollment and Cancellation Trends:

Dashboard 3:

Key Insights

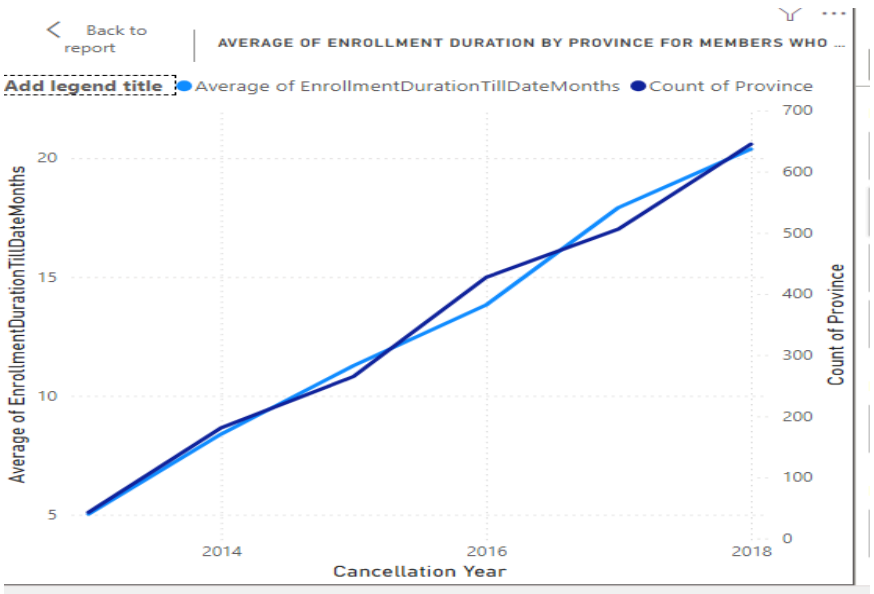
- Ontario had the most cancellations.
- Loyalty Card Members having the Star category had the most enrollment duration.
- Divorced People of any Education are most likely to cancel their bookings.



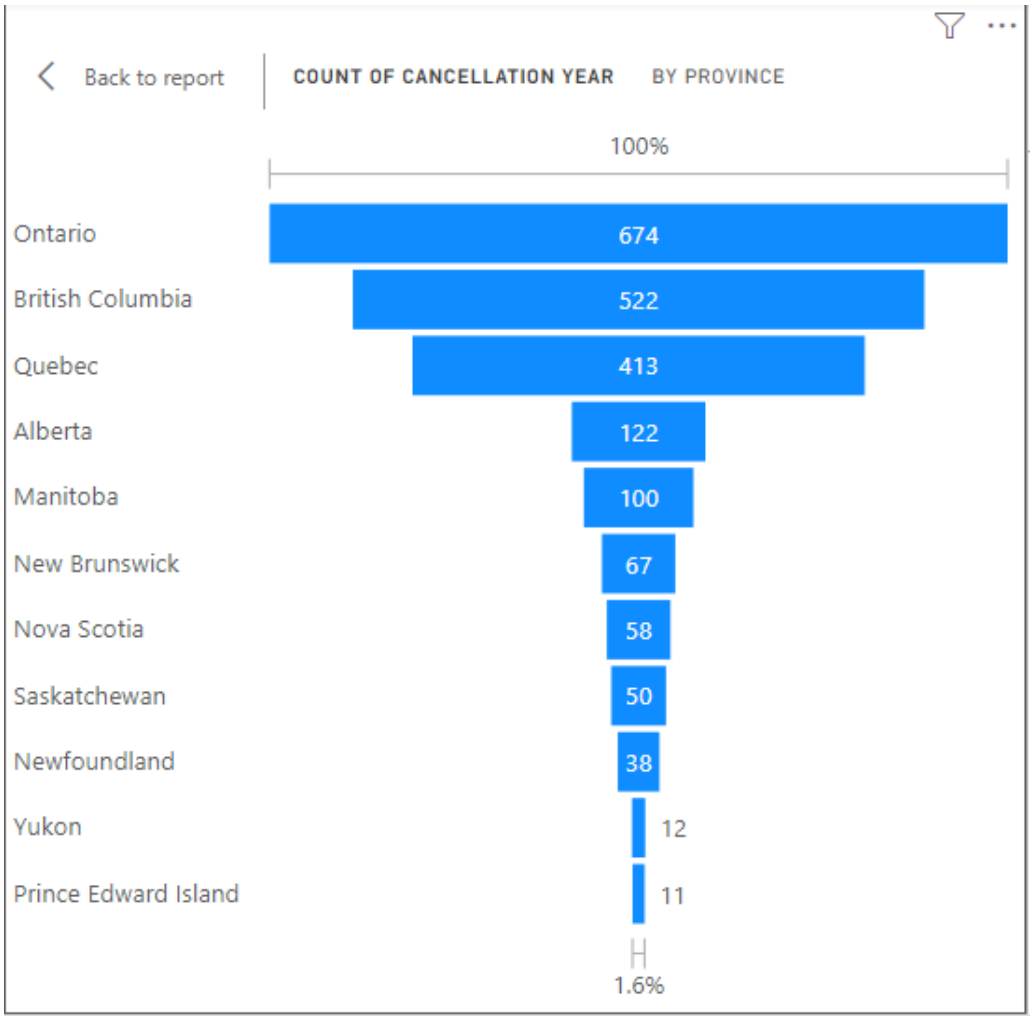
I analyzed the average duration of enrollment among cancelled members by province.

I divided it into the parts

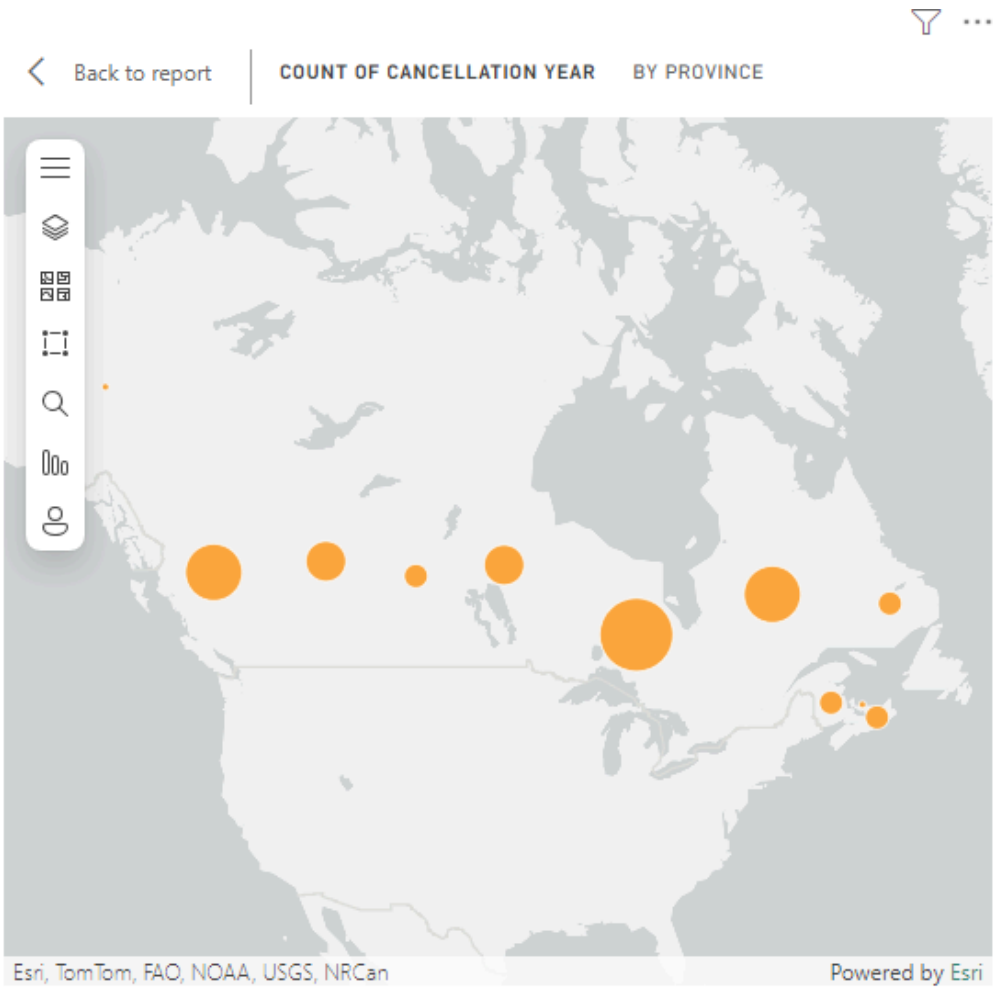
A trend of Average Enrollment duration of members who canceled their booking by province showed it increasing over the span of years from 2012 to 2018.



A comprehensive view of the count of cancellations by province. Ontario had the most flight cancellations.

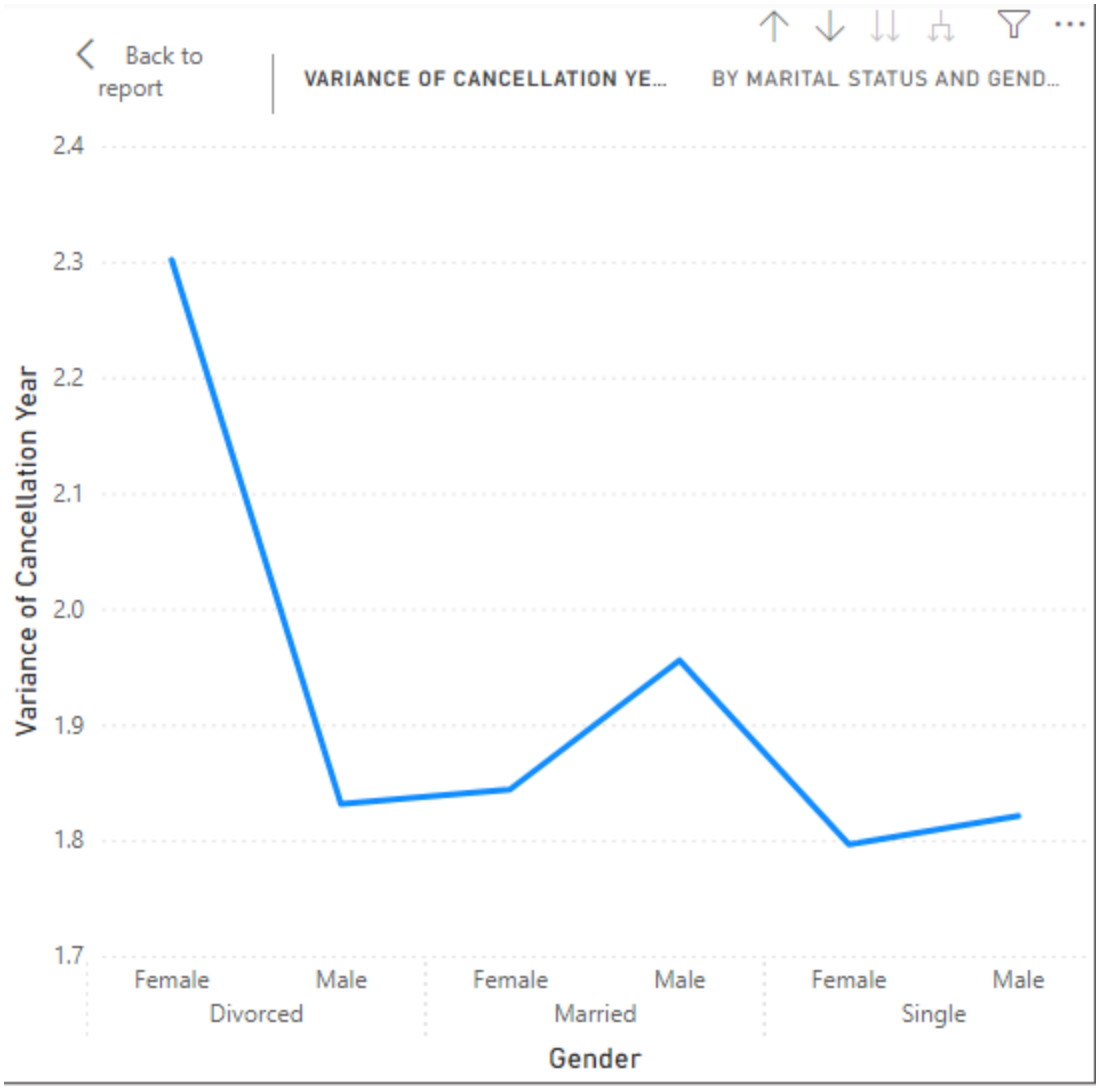


Furthermore the depiction on the map shows that

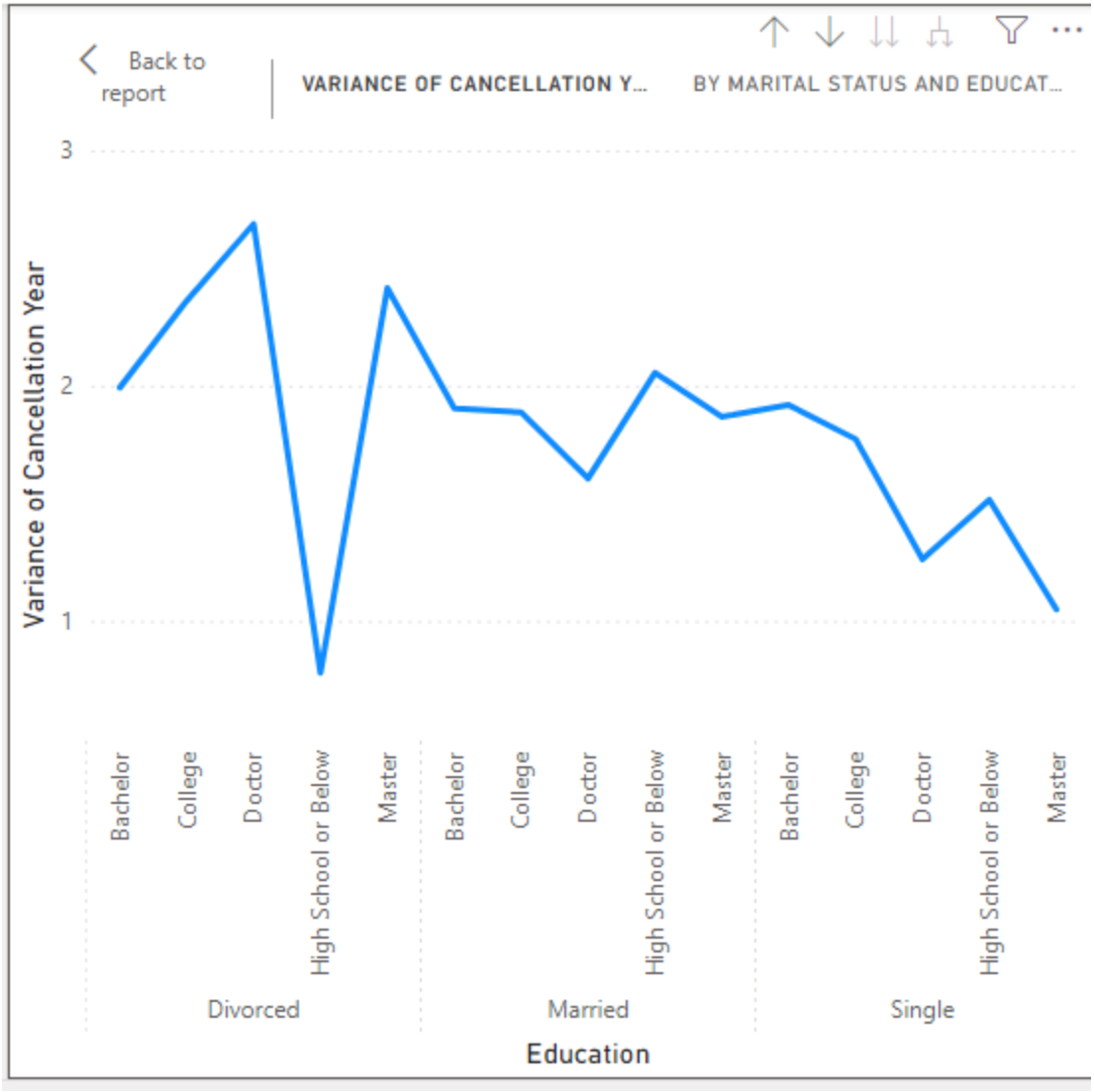


Cancellations by Gender and Marital Status

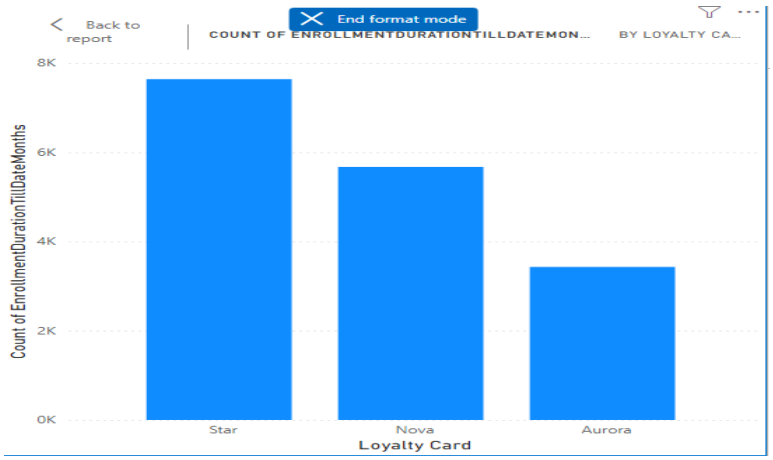
The variance of this trend showed that divorced females had the most cancellations while single males had the least cancellations.



The variance of cancellation trend by Education and Marital Status showed that Divorced persons were more likely to cancel their booking and single persons were less likely. The highest in profession were divorced doctors to cancel their bookings.



Members having Aurora Loyalty Card Tier have the lowest Enrollment Duration.



Recommendations

- Frequent rewards/offers based on the Marital status
- Exclusive benefits like Premium membership: Provide exclusive benefits for loyal members.
- Collect/act on member feedback like encourage members to provide loyalty program insights.