Business Intelligence Case Study: FlyingWhale Airline

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Flight Activity Analysis:

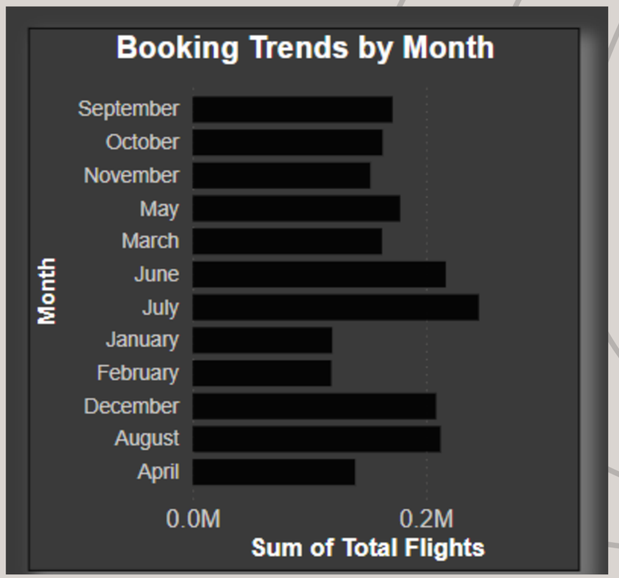
BOOKING TRENDS:

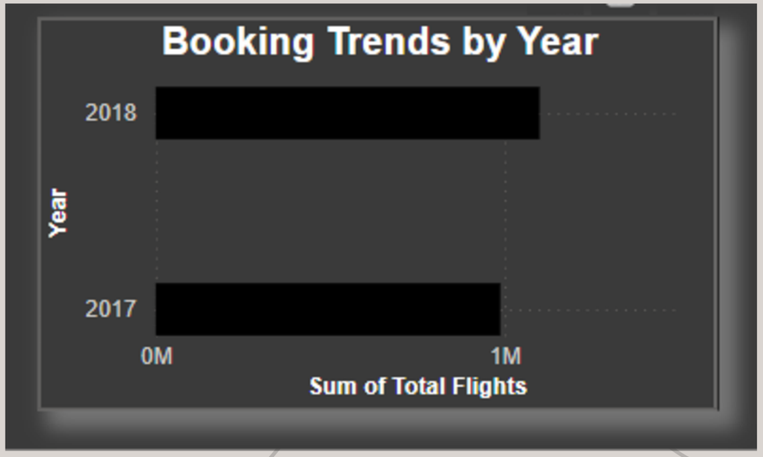
Key Findings:

- July shows the highest number of flights booked.
- February experiences the least number of flights.

Recommendations:

- Increase Capacity in July: To meet high demand and maximize revenue.
- Promotional Strategies for February: Develop targeted marketing campaigns to stimulate travel during low-demand months.





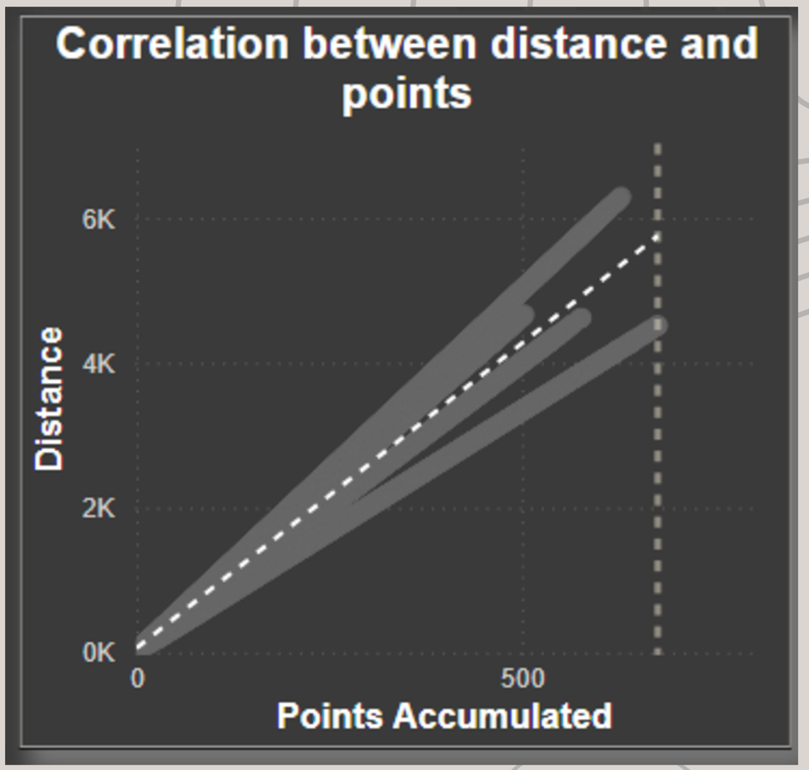
Correlation between Distance and Points accumulated:

Key Findings:

- There is a positive correlation between distance and points accumulated

Recommendations:

- More points for frequent customers.



Impact of companion bookings on loyalty points:

Key Findings:

- Most loyalty points are redeemed when passengers book three flights with companions.
- least loyalty points are redeemed when passengers booked 10 flights with companions.

Recommendations:

- customized packages: More Companions, Bigger Discounts.

Impact of Companion Bookings on Loyalty Points

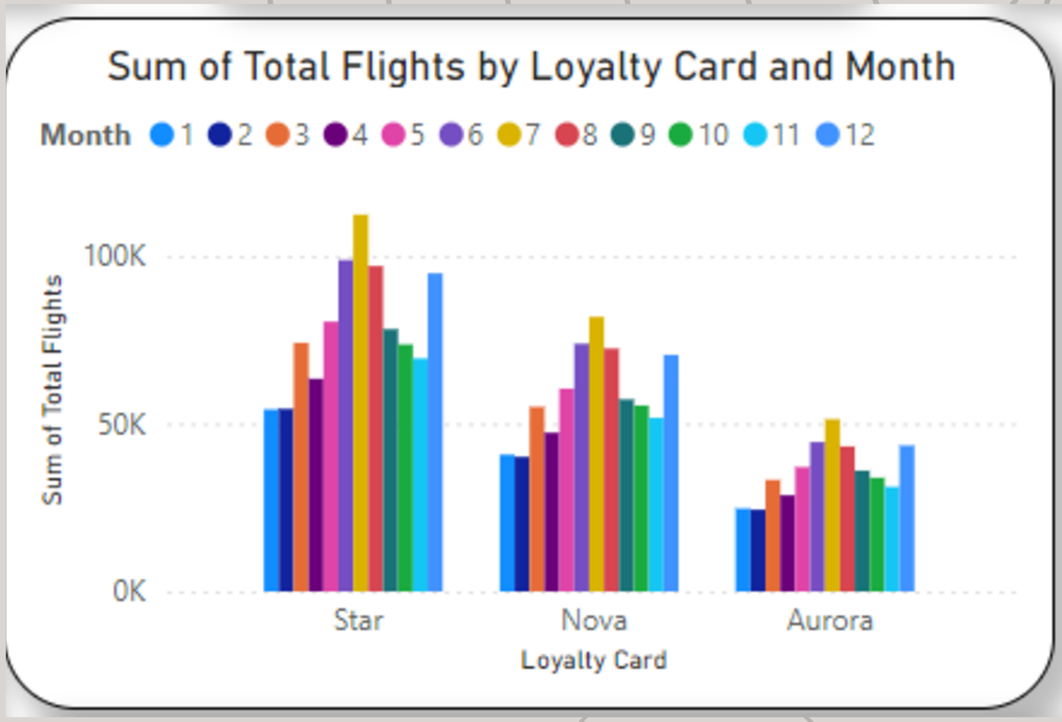
Flights with Companions	Sum of Points Redeemed
3	2195087
2	2076362
1	1903942
4	1562536
5	1558007
6	1083407
7	823340
8	469626
9	372375
0	198967
10	149655
Total	12451388

Customer Loyalty Segmentation

Maximum Number of flights with loyalty Card

Key Findings:

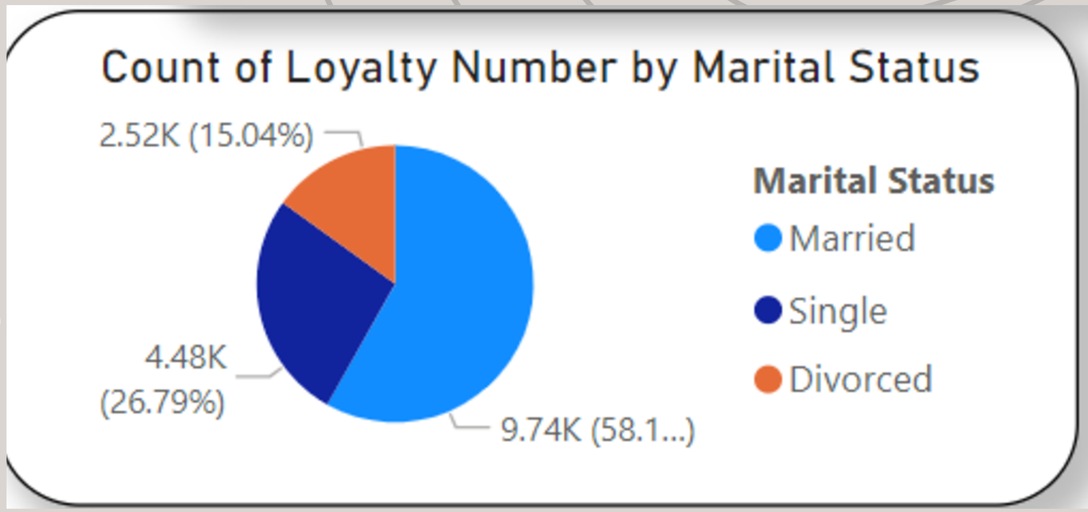
- It has been analyzed that maximum number of flights had been done in 4 month (June, July, August and December) throughout the year across all types of loyalty cards (Star, Nova, Aurora).
- Star is the Card Tier through which highest number of customers have taken flights in the month of July.



Division of Loyalty Members along Martial Status

Key Findings:

- As shown in the visuals, more than half of the loyalty members are Married, while a quarter of them are Single and the rest are Divorced.
- There can be multiple reason of this trend but one can be that people with more companions redeemed more points as given in the slide 5. Further, the Family-oriented incentives encourage married couples to choose the same airline for their family trips.



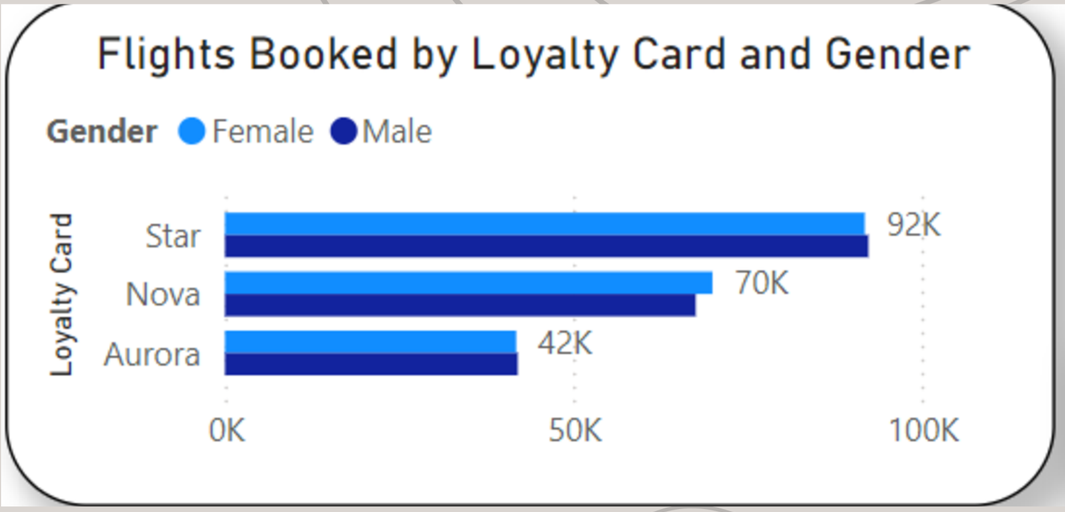
Recommendation:

- Create travel offers specifically designed for singles and solo travelers. This could include discounted single tickets, exclusive deals on solo vacations, or bundled offers for individual bookings.

Maximum Number of flights with loyalty Card

Key Findings:

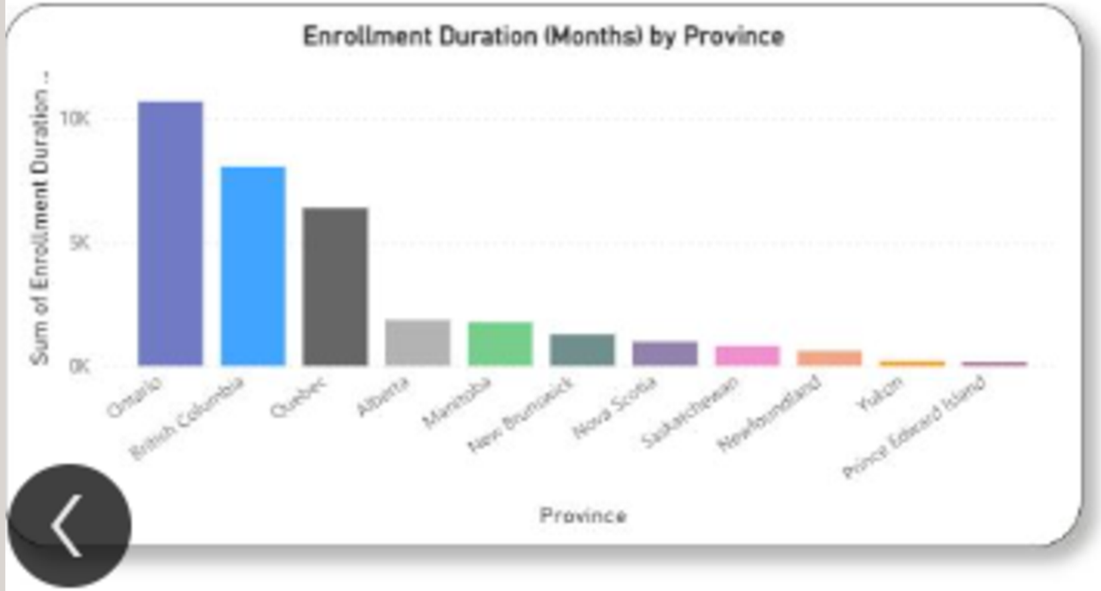
- It has been analysed the along with three tiers of loyalty cards (Star, Nova and Aurora), Star bagged more of the flights booked than others. Dividing the stats on the gender of customers, it is observed that there is a close similarity of both genders in terms of the flights. In Star, the difference is 528. In Nova's case, there are 2400 female passengers than males. Lastly, the difference in Aurora's case is the least of all: there are 216 more male passengers than females.

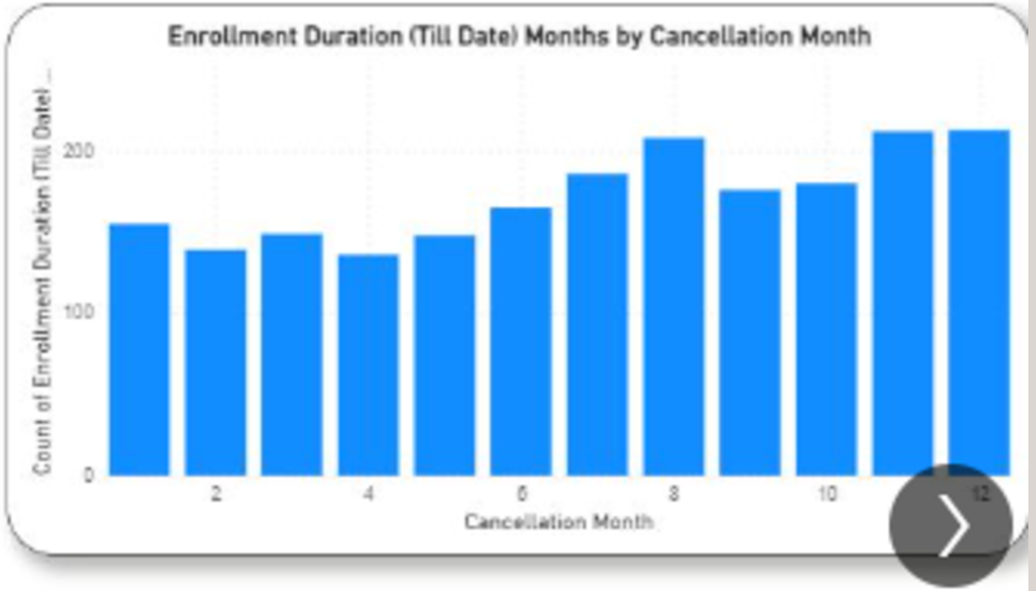


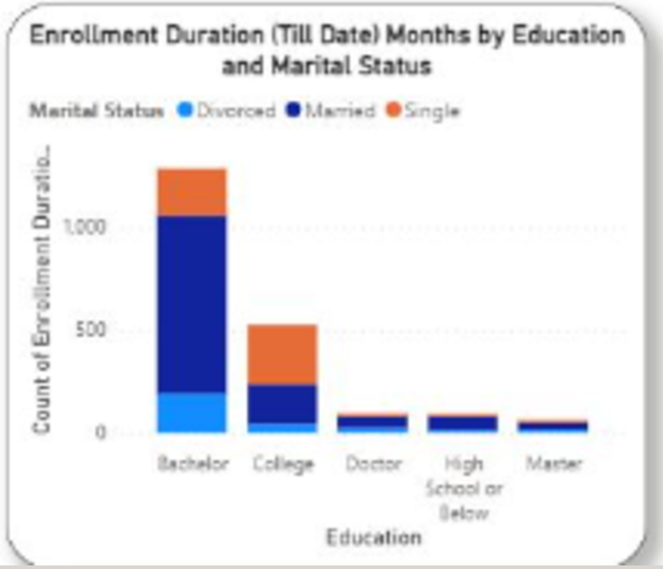
Recommendations

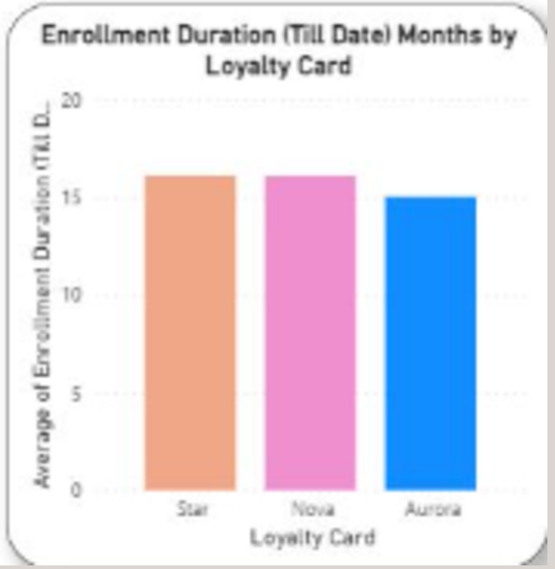
- Nova and Aurora should enhance their reward structure by offering more immediate and tangible benefits. For example, both Nova and Aurora can introduce faster point accumulation, instant upgrades, or exclusive early access to discounts.

Enrollment and Cancellation Trends





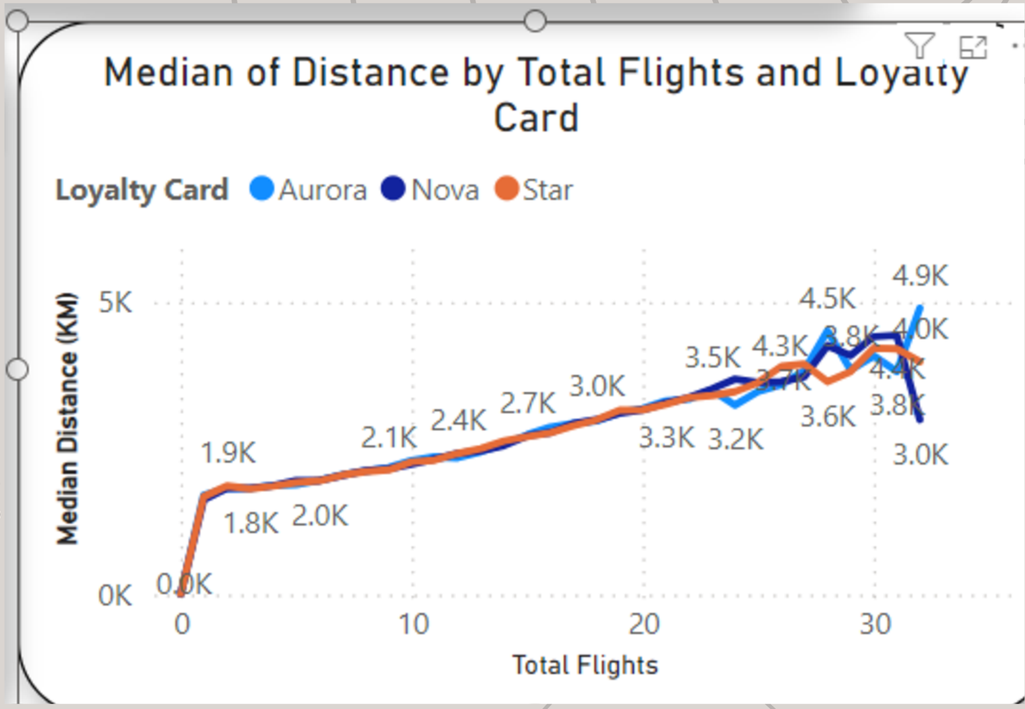




Median Distance travelled by Each Loyalty Card

Key Findings:

- For 32 total flights, the median distance traveled by Aurora cardholders is 4.9K kilometers, which is the highest among the three tiers.
- The Aurora card is more attractive to frequent long-distance travelers. The airline could build on this by offering additional rewards or exclusive benefits (e.g., extra baggage allowance or international lounge access) to further encourage long-distance travel.



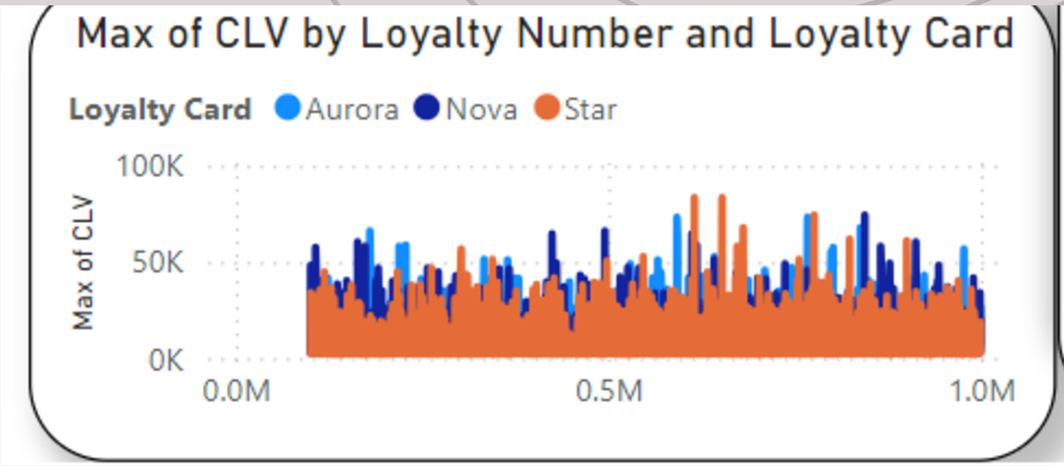
Recommendations

- Promote Aurora with extra miles for long-distance flights, while Nova can offer short-haul discounts and incentives for longer trips. Star should provide versatile rewards to appeal to both regional and international travelers.

Maximum CLV by Loyalty Number and Loyalty Card

Key Findings:

- Customers in the Star tier have sporadic but notable spikes in CLV, indicating a subset of highly valuable, elite customers who generate significant lifetime revenue.
- In Aurora CLV is consistent but remains in the lower ranges, with a broad customer base that is less valuable overall.
- Lastly Nova Like Star has some high-value customers, but the peaks are less frequent and significant, with a lower base CLV than Aurora.



Recommendations

- Nova should implement a premium tier with exclusive rewards to attract high-value customers, similar to Star, while Aurora can introduce tiered rewards that incentivize mid-range spenders to increase engagement. Both programs should use data-driven personalization; Nova targeting elite customers with exclusive offers, and Aurora focusing on broad-based engagement to gradually elevate customer value.

Thank You