
IE6600 - Computation and Visualization - Project 2

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Submitted By -

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8th December 2023

The data set is an open source from MavenAnalytics

Reference DataSet:

<https://mavenanalytics.io/data-playground?page=1&pageSize=5&tags=20BiJ97LqXh92nR4jQGg9W>

Tableau Link:

https://public.tableau.com/shared/4YYRT77K8?:display_count=n&:origin=viz_share_link

The data set contains information about a pretend airline called Northern Lights Air in Canada. They have a loyalty program, and they did a special offer from February to April 2018 to get more people to join the program. The data includes details about people signing up, joining the program, canceling, and some extra information about the customers.

The four storyboard shows different things about people flying and being loyal customers. They give us useful information about the Canadian market. Each board looks at things in its own way, helping us understand everything better.

Story 1: Shows information about the average points people earn and use, favorite airlines and destinations, and differences between cities. This helps airlines see how loyalty varies by location, giving them useful insights like:

- The average points in each city is **5.93**
- There are **201,984** flights scheduled in Canada.
- The average points per flight is **6.94**

Story 2: Shows the loyalty history of airline customers in Canada. It displays trends in earned and used points over time, highlighting growth and possible shifts in customer behavior. Insights are:

- The city with the highest number of points redeemed in Canada is **Kelowna**, with an average of **28.36%** with the average of approximately **24%**
- There was a steep decline in 2018 with the number of flights booked after 2017 and hence the overall points accumulated also sees a drop in the behavior.

Story 3: Story 3 analyzes trends by day of the month, offering valuable insights for travelers planning flights on this route and how customers tend to redeem the points at dollar cost. Insights:

- **July** experiences the highest amount of points accumulated.
- During the 2018 promotion, **Quebec** participated the most and had the highest points accumulated, however **Ontario** has the overall highest score for the same.

Story 4: Story 4 reflects the top 10 customers which have the highest Customer Lifetime Value points categorized with their Loyalty card type. This also gives us the background of the customers and their average cancellation rate, average flights booked and average points redeemed.

Insights:

- The top percent of occurrences when the points were redeemed lies between **520-371%**.
- The top customer with the total CLV earned ranges from **20,05,819 - 16,29,774**