

# **Customer segmentation for perk allocation in TravelTide upcoming loyalty program**

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# Outlines

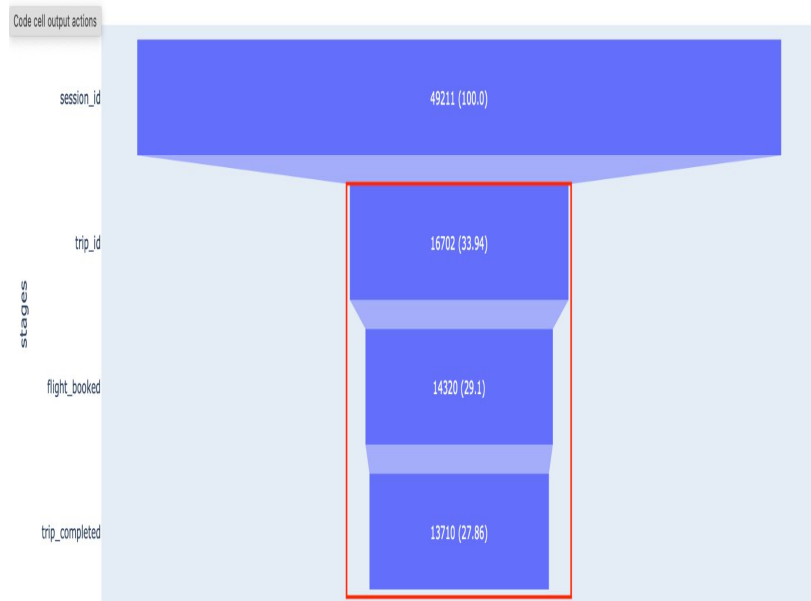
- Define the objectives
- Describe the methodology
- Show segmentation result
- Describe unique features of segments for perk
- Conclusion and Recommendation

# Project Overview

## Objectives:

- To segment customers based on the personal and trip purchase behaviours.
- To allocate an appropriate perk for each segment to ensure their loyalty to TravelTide

## Trip-based funnel



# Methodology

Selected a data cohort

Clean data

Develop metrics for segmenting

Scale data , reduce dimensions

Clustering by Gaussian Mixture

Describe segments based on rules

Assign perk

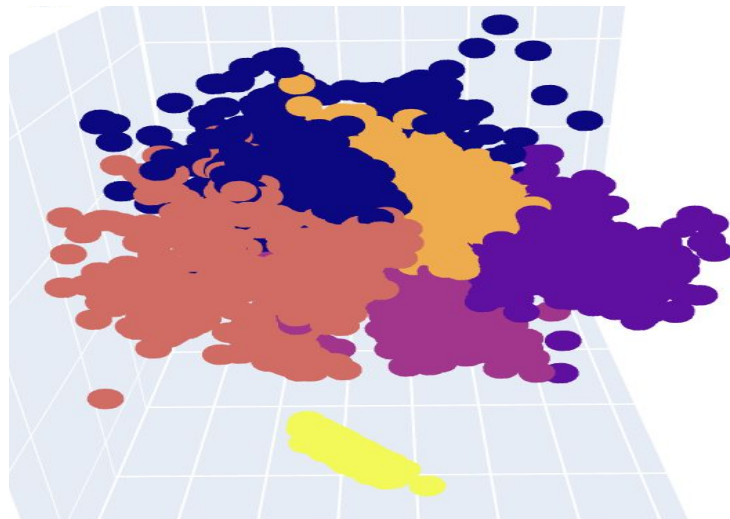
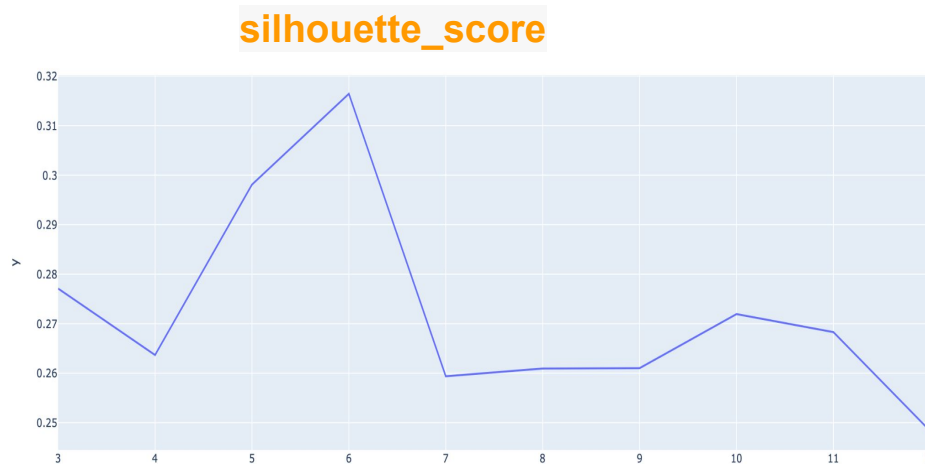
## Customers-level funnel



# Segmentation Results

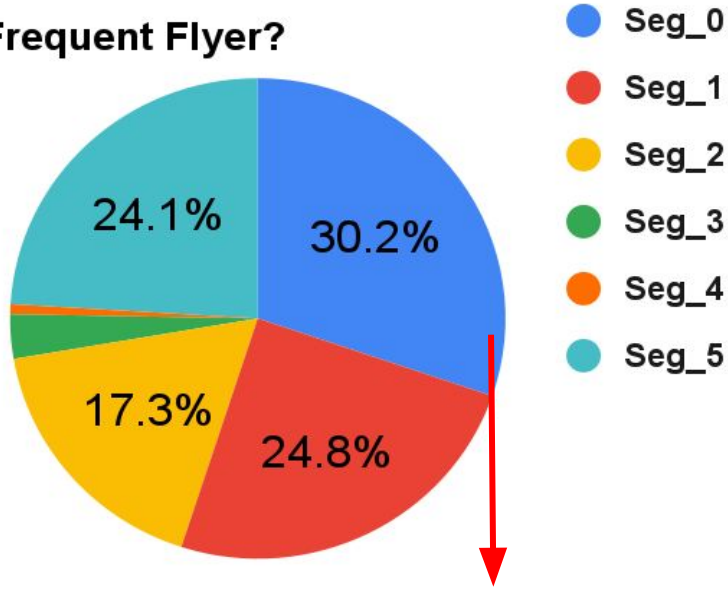
- Silhouette score gave the maximum similarity with 6 clusters

	segment	PC1
0	0	1139
1	1	1286
2	2	758
3	3	661
4	4	351
5	5	1347



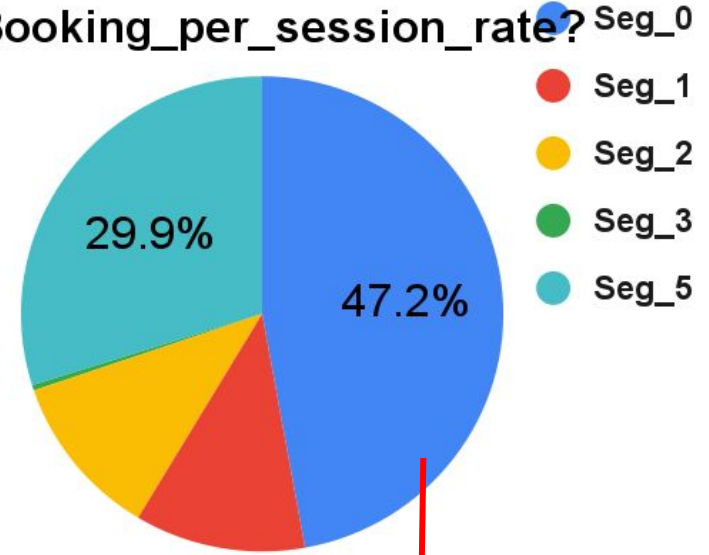
# Segment\_0

Frequent Flyer?



Frequently flying users

Booking\_per\_session\_rate?

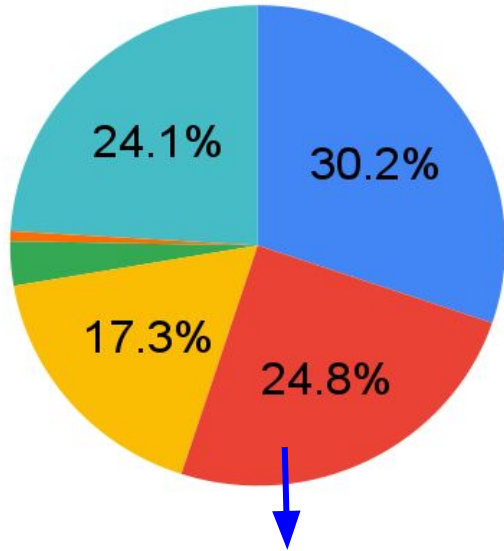


Highest booking/session rate

**Perk: Free access to airline lounge**

# Segment\_1

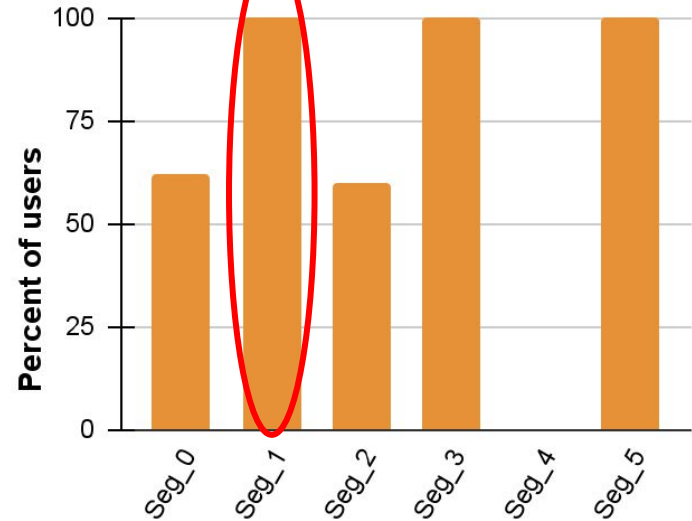
Frequent Flyer?



Frequent flyer

- Seg\_0
- Seg\_1
- Seg\_2
- Seg\_3
- Seg\_4
- Seg\_5

Hotel\_user?

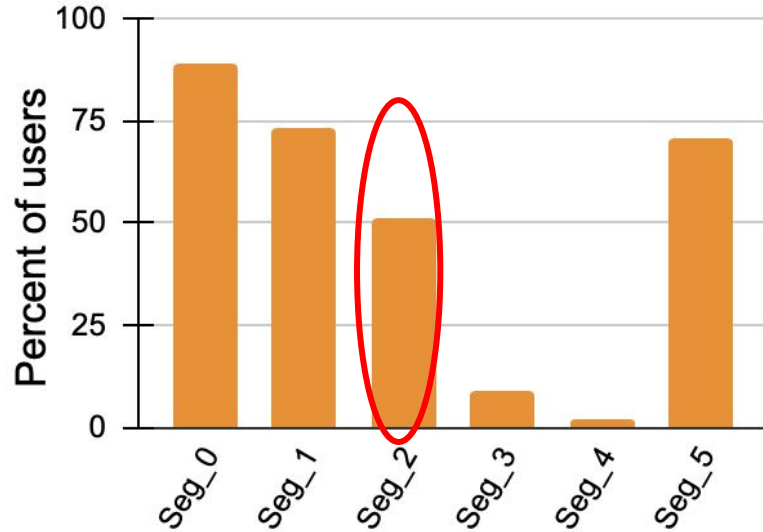


100% hotel users

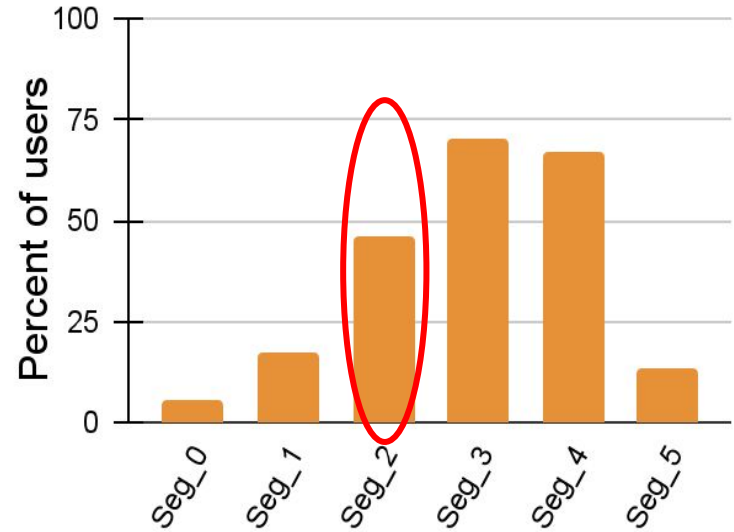
Perk: Free hotel night

## Segment\_2

**Frequent flyer?**



**Discount buyer?**

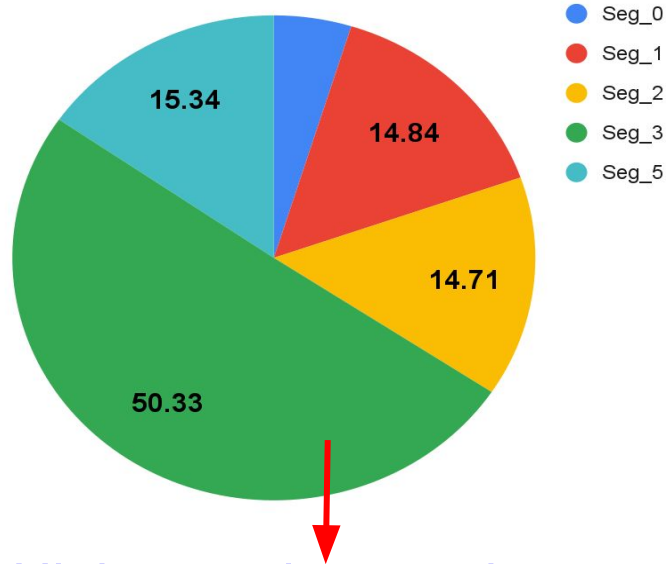


**Perk: 10% flight discount**



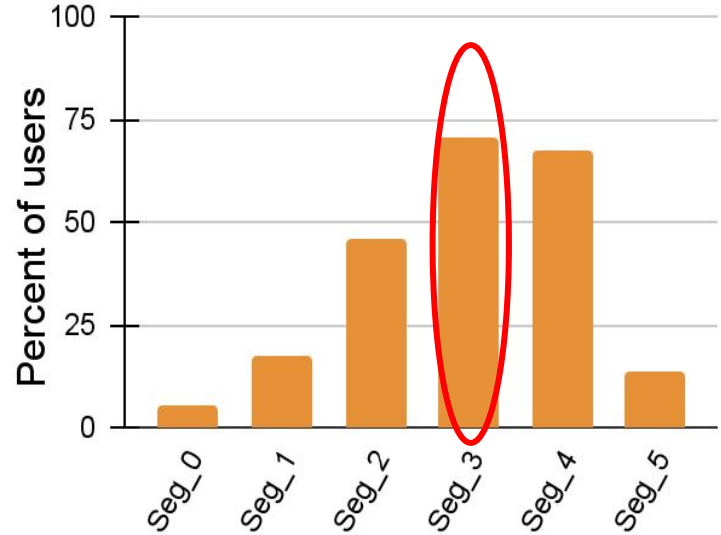
# Segment\_3

High spender\_per\_km?



High spenders per km.

Discount buyer?

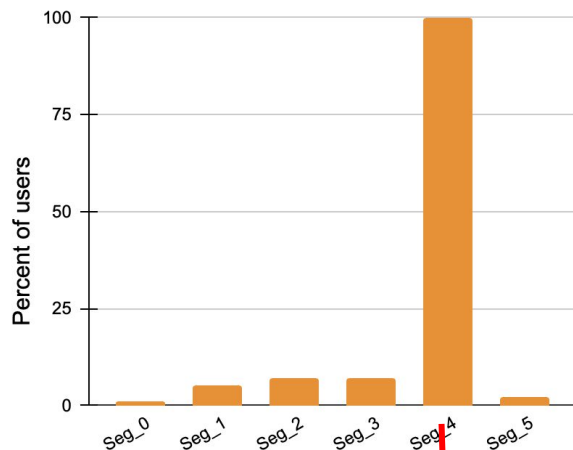


Respond to discounts

**Perk: 10% Hotel discount**

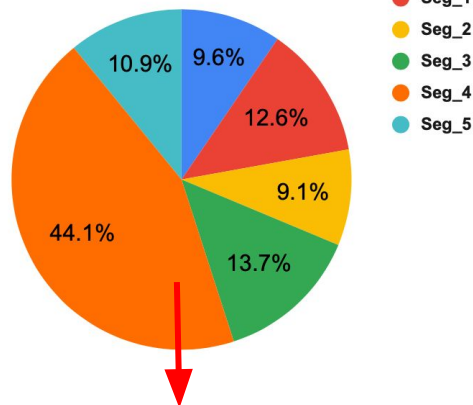
# Segment\_4

last\_minute\_booker?



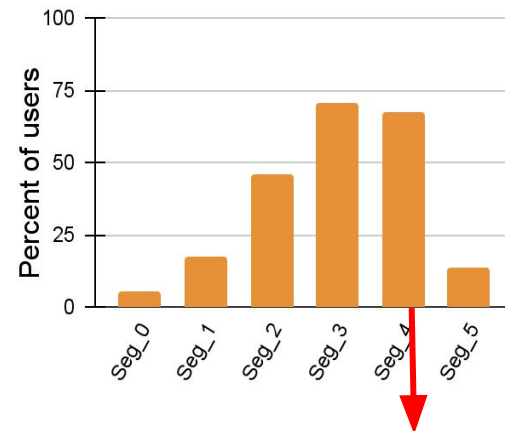
Last-minute booker

Short haul traveler?



Short haul travelers

Discount buyer?

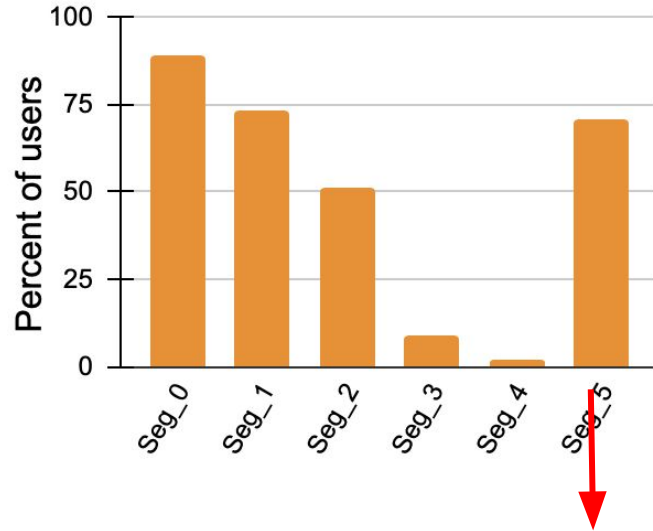


Respond to discount

Perk: 5% flight discount

## Segment\_5

Frequent flyer?



More older customers in this segment.

Frequent flyer

Perk: Free ride and hotel meal

# Conclusion and Recommendation

- The GM algorithm successfully segmented users
- Users were nicely splitted into six segments
- Three of the 5 Elena's perk suggestions could be verified by the data.
- Reducing the stringency of the cohort selection in terms of session numbers and timeframe may help to identify more customer behaviours and perk allocation.