TravelTide - Customer Categories and Assigned Perks

Introduction:

TravelTrade is a leading travel booking platform that offers a seamless experience for booking flights, hotels, and vacation packages. Our mission is to enhance customer satisfaction through personalized services.

Objective: Identify behavioral markers for 8 hypothesized rewards program perks and assign customers to each perk.

Methodology: Analyzed user demographics and session data from 2023 to find trends and patterns in customer behavior.

Outcome: Segmented customers into eight distinct groups based on identified behavioral markers.

Customer Categories Overview

- **Solo Traveler**

  2207 customers

  - **Criteria:** One seat, flight count >= 1
  - Solo Travelers are individuals who travel alone and book a single seat.
  - **Criteria for Solo Travelers**: Users who book **one seat per flight** and have taken **at least one flight**. This definition is supported by the median value of max seats (1), indicating the most common behavior among users.
  - **Perk**: **100 loyalty points**. This perk is well-suited for solo travelers, offering them a reward that is flexible and can enhance their travel experience without the need for group-specific benefits. It acknowledges their loyalty and encourages further use of the service.
- **Family Traveler**

  288 customers

  - **Criteria:** Married or has children, max_seats >= 2 AND max_rooms >= 1
  - **Married = TRUE**:
    - The user must be married, which generally suggests a family-oriented lifestyle.
  - **Has_children = TRUE**:

- ■ The user must have children, further indicating that they are likely to travel with family members.
  - ○ **Maximum Seats > 2**:
    - ■ This criterion means that the user has booked flights with more than 2 seats on at least one trip. Booking more than 2 seats typically suggests that the user is traveling with others (e.g., a spouse and/or children), which is characteristic of family travel.
    - ■ For **family travelers**, the mean number of seats is **2.84**, and the median is **2**. This indicates that many family travelers book 2 or more seats.
  - ○ **Maximum Rooms ≥ 1**:
    - ■ This means that the user has booked at least one room on a trip. This is a basic requirement for identifying travelers who stay in hotels or accommodations.

  Perk: Family discount

  - ○ A family discount helps offset the higher costs associated with booking multiple seats and rooms, making travel more affordable for families.
  - ○ Families value perks that directly impact their travel experience, such as discounts that allow them to allocate their budget to other aspects of the trip, like activities or dining.
  - ○ By offering a family discount, TravelTide enhances the overall experience for family travelers, leading to higher satisfaction and potential for repeat bookings.

- ● **Budget Traveler**

  846 customers

  - ○ **Criteria:** Flight and hotel discounts > 1
  - ○ Budget Travelers prioritize affordability and seek out discounts on both flights and hotels.
  - ○ **Perk:** Extra discount on flights/hotels
  - ○ Users who use more than the mean number of discounts (greater than 0.421 for flight discounts or 0.369 for hotel discounts) can be classified as "Budget Travelers."
  - ○ This criterion identifies users who are more price-sensitive and more likely to seek out discounts to minimize costs.
  - ● The chosen criteria to classify budget travelers focus on users who exhibit discount usage patterns higher than the average, identifying a group that is particularly cost-conscious. This approach helps in understanding and targeting a segment that prioritizes affordability, potentially leading to better-tailored marketing strategies and offerings.

- **Business Traveler**

  866 customers

  - **Criteria:** max_seats >= 1 AND max_rooms >= 1 AND flight_count > 3
  - Business Travelers often travel for work and value efficiency and comfort.

  Perk: Free business lounge access

  - The chosen criteria for identifying business travelers—more than 3 flights and at least one hotel room booking—are strongly supported by the statistical analysis. The data shows that business travelers typically book at least 4 flights, and their spending per trip tends to be around $567.48 to $600.027. These insights confirm that the criteria effectively capture users who are frequent and high-value travelers, making them suitable candidates for premium services like business lounge access.

- **Luxury Traveler**
  - **381** customers
  - **Criteria:** Average flight fare > $800 or hotel fare > $500
  - Luxury Travelers are willing to spend more on premium services, with higher average spending on flights and hotels.
  - The criteria of an **average flight fare above $800** or an **average hotel fare above $500** effectively distinguishes luxury travelers from the general customer base. These thresholds are justified by the statistical analysis, as they focus on customers who are consistently spending well above the median and mean, aligning with the expectations of luxury services and experiences.
  - **Perk**: Access to VIP lounges
  - **Perk Justification:** Offering perks like VIP lounge access to customers who meet these criteria is a strategic decision to cater to high-value clients, ensuring their loyalty and satisfaction by providing services that match their spending habits and expectations.
  - The criteria for identifying Luxury Travelers center around customers who consistently spend significantly more on flights and hotels. By focusing on high average spending, we can pinpoint those who prioritize premium experiences. The perk of VIP lounge access is well-suited to these travelers, reflecting their preference for exclusive services. Our data-driven approach, which involves analyzing high-value spending patterns and comparing expenditure across segments, ensures that these criteria accurately capture luxury customer behavior. This approach supports targeted marketing efforts and enhances customer retention strategies.

- **The Explorers**

  404 Customers

  ○ **Criteria:** max_seats >= 2
  ○ The Explorers are adventurous travelers who book multiple seats.
  ○ **2+ Seats:** Setting the criteria to include users who book at least 2 trips with multiple seats is a reasonable threshold. This criterion is chosen because it ensures that the users identified are more engaged in booking multiple seats than the majority, thus targeting those who are likely to be adventurous or group travelers. This criterion is higher than the mean and closer to the higher end of the distribution, which helps in identifying users who consistently book multiple seats rather than those who do so occasionally.
  ○ **Perk:** Free coupons
  - Free coupons are suitable for Explorers, encouraging their adventurous travel behavior and rewarding their frequent bookings with multiple seats.
  - The criteria of booking **2+ trips with multiple seats** effectively targets users who are more actively engaged in group or adventurous travel compared to the general user base. This segmentation helps to identify those who are likely to value the perk of **free coupons**, aligning with their behavior patterns and incentivizing further engagement. The use of median and mean values for multiple seat trips supports this choice, ensuring that the criteria are both inclusive enough to capture relevant users and exclusive enough to target those who are genuinely engaged in this travel behavior.

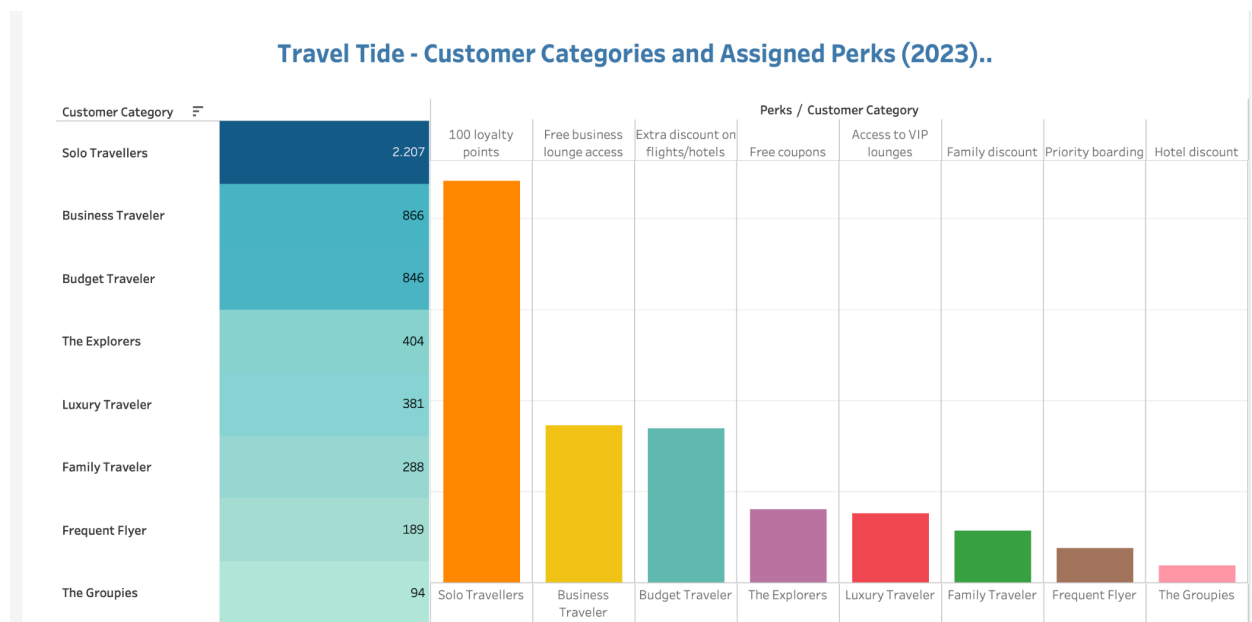- **Frequent Flyer**

  189 customers

  ○ **Criteria:** Flight count > 3, flight discounts > 2
  ○ The AVG of `flight_count= 3` and `flight_discounts= 1` and uses these values as the thresholds for classifying frequent flyers and discount users.
  ○ If a user's flight count exceeds the median flight count which is 3, they are classified as a **Frequent Flyer**.
  ○ If their flight discount count exceeds the median discount count which is 1, they are classified as a **Frequent Discount User**.
  ○ **Perk**: Priority boarding
  ○ Assigning priority boarding to frequent flyers with more than three flights and more than two flight discounts is a strategic decision based on data-driven insights. This perk aligns with the needs and preferences of frequent travelers,

enhancing their overall experience and fostering loyalty to the TravelTide platform.

● **The Groupies**

94 Customers

○ **Criteria:** max_seats >= 3 AND max_rooms >= 2
○ The Groupies travel in large groups, booking multiple seats and rooms.
○ The chosen criteria of **3+ seats and 2+ rooms** are justified based on the statistical measures. These criteria capture users who book significantly more than the typical user, as indicated by the median values.
○ **Perk:** Hotel discount
○ Offering a **hotel discount** as a perk aligns well with the identified behaviors and provides a tangible benefit that can enhance user satisfaction and engagement.

Travel Tide - Customer Categories and Assigned Perks (2023)..

Customer Category		100 loyalty points	Free business lounge access	Extra discount on flights/hotels	Free coupons	Access to VIP lounges	Family discount	Priority boarding	Hotel discount
Solo Travellers	2.207								
Business Traveler	866								
Budget Traveler	846								
The Explorers	404								
Luxury Traveler	381								
Family Traveler	288								
Frequent Flyer	189								
The Groupies	94								

Key Findings

- **Increased Engagement**: Identified segments show distinct behaviors that can be targeted for higher engagement.
- **Personalized Offers**: Each segment responds differently to perks, allowing for more personalized and effective reward offers.
- **Optimized Marketing**: Insights will help refine marketing campaigns, making them more efficient and customer-focused.

Next Steps / Recommendations

- **Develop Targeted Campaigns**: Create marketing campaigns tailored to each identified segment.
- **Monitor Engagement**: Track engagement and conversion rates to measure the effectiveness of tailored offers.
- **Refine Segments**: Continuously refine customer segments based on ongoing data analysis.
- **Feedback Loop**: Implement a feedback mechanism to gather customer insights and personalize rewards.

Embedded Links:

- **EDA & perk Assign**
- **SQL Code**
- **CSV**
- **Presentation Slides**