Travel Tide: Customer Analytics & Segmentation

Driving Loyalty & Growth through Data

By: Shraddha Ingle

Contents:

What We're Working On

Introduction: **TravelTide: A Fast-Growing E-Booking Startup**

- Founded **April 2021**, post-pandemic recovery boom

- Provides **largest travel inventory** in the e-booking industry

- Powered by **best-in-class data aggregation & search technology**

Objectives: **Aim of This Analysis**

- **Segment customers** based on behavior to enhance loyalty & performance

- **Identify customer personas** through behavioral traits

- **Develop targeted perks & offers** for each segment

- Enable **personalized marketing & retention strategies**

Methodology

- ## Data Collection & Cleaning
  - Combined users, sessions, flights, hotels data
  - Removed duplicates, handled missing values

- ## Exploratory Data Analysis (EDA)
  - Assessed demographics, user engagement, booking behavior
  - Identified loyalty patterns, travel preferences, seasonality & trends

- ## Feature Engineering
  - Created behavioral & financial metrics (RFM, LTV, session duration, cancellations, etc.)

- ## Clustering Analysis
  - Applied **KMeans (unsupervised learning)** for segmentation
  - Used **scaling & PCA** for dimensionality reduction and visualization

Customer Clusters (PCA Projection) / Average Total Spending per Cluster