STC TV Customer Experience Enhancement

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Project Overview

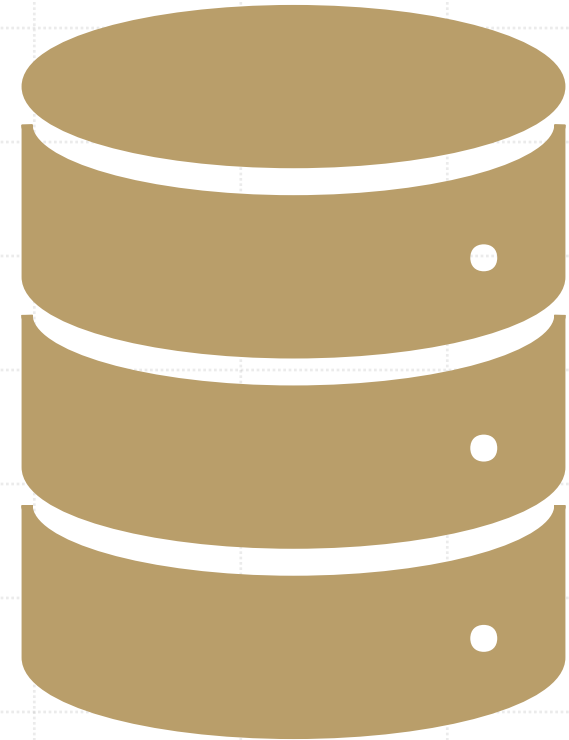Datasets

Analyzing customer behavior

Building a prediction model for user behavior

Recommendation System

Datasets

- Three datasets were provided to complete the tasks:

1. **First Dataset:** Used for analyzing customer behavior.

2. **Second Dataset:** Used for building a prediction model for user behavior.

3. **Third Dataset:** Used for building a recommendation system.

Analyzing customer behavior

- **Insight:**
  After conducting statistical analysis on the first dataset to uncover key insights from user data, the Top 10 most-watched programs on STC TV were identified based on the total watch time.

top 10 programs in total watch time in houres

- The Boss Baby
- The Amazing pider-Man
- The Expendables
- Moana
- Trolls
- Bean
- The murfs
- Hotel Transylvania
- Cloudy With a Chance of Meatballs
- The Man With The Iron Fists

18.7%
12.4%
12.4%
10.8%
10.1%
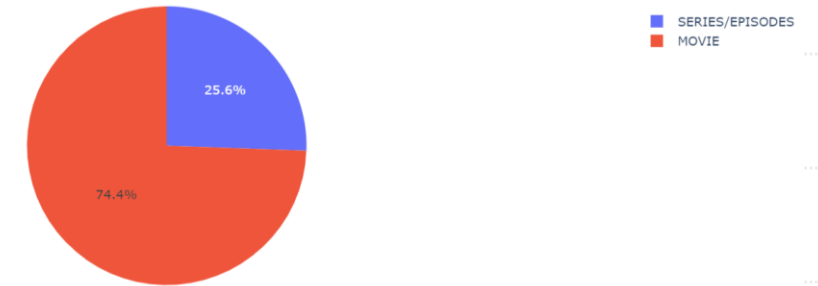8.97%
8.46%
6.91%
5.98%
5.42%

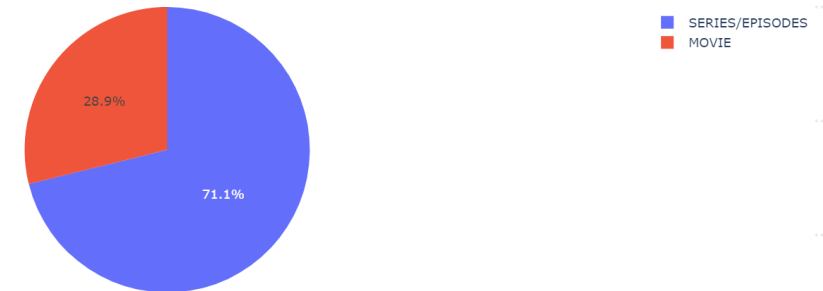# Analyzing customer behavior

- **Insight:**
  Although series contribute the most to total viewing time due to their longer duration, movies are the most frequently watched type overall.

Total Users watching by program_class

SERIES/EPISODES
MOVIE

25.6%
74.4%

Total duration spent by program_class

SERIES/EPISODES
MOVIE

28.9%
71.1%

Analyzing customer behavior

- **Insight:**

  The most-watched program category is HD Movies, accounting for 47.6% of total viewing. In contrast, HD Series/Episodes are the least-watched category, contributing only 11.5% of total viewing.

Total Users watching in HD/SD and Program Class

- SD SERIES/EPISODES
- HD MOVIE
- SD MOVIE
- HD SERIES/EPISODES

14.3%

11.5%

47.6%

26.6%
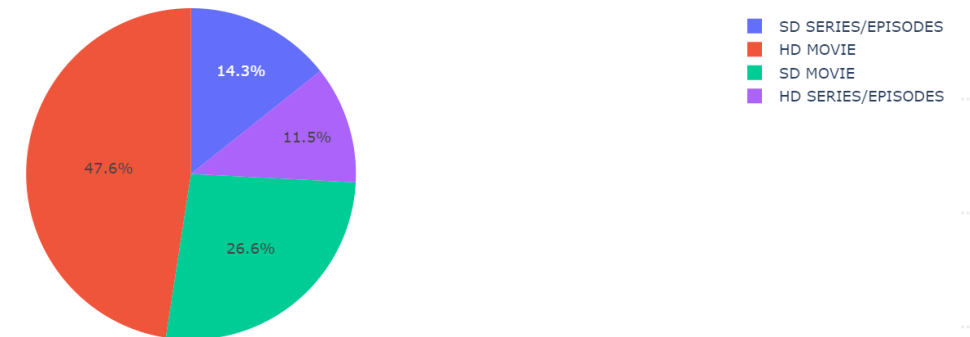
# Building a prediction model for user behavior

By building a prediction model, we aim to forecast the expected watch time for the next two months based on historical data of users' behavior, specifically their **Total Watch Time in Hours**.

Building a prediction model for user behavior

- **Insight:**

  The prediction model forecasts a stable watch time trend for the next two months, as indicated by the red line. While the actual test data (green line) shows fluctuations, the model predicts a consistent watch time close to the average of the recent trend.

Forecast vs Actuals
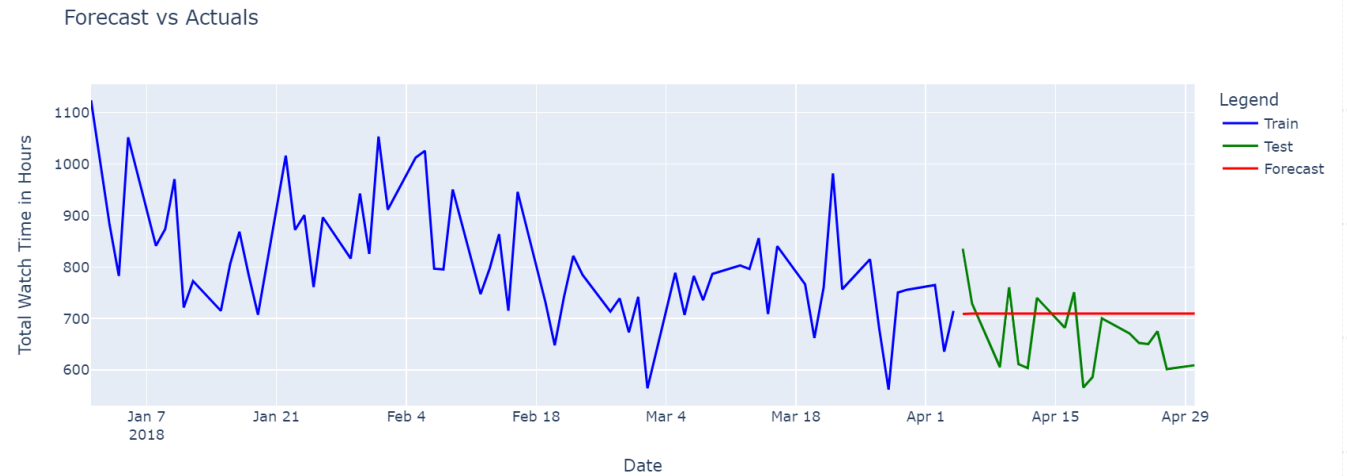
Recommendation System

Developing a recommendation system is a crucial step to enhance customer satisfaction, making it the final and most impactful task.

Recommendation System

Understanding Preferences:
We compare programs based on user ratings.

Finding Similarity:
Using **cosine similarity** ew , ralimis woh erusaem hcae ot era smargorp gnitar fo sseldrager ,rehto .elacs

Making Recommendations:
Programs with the highest similarity scores are recommended to users who watched or liked similar ones.

Thank you