MAXIMIZING REVENUE OF MOVIE THEATRE OWNERS

Arun Mani Varughese

AI Tech Lead

arun.mani.varughese@gmail.com

Problem Statement

How can movie theatre owners significantly increase revenue in a rapidly evolving entertainment landscape.

System Description

The system is composed of multiple elements working to improve the revenue of theatre owners. Each element, its purpose and working are described below.

1) Customized Ticket Pricing

Ticket is the primary source of income for a theatre. Model is designed to predict the price of a movie ticket based on a set of input features. It utilizes a regression model/algorithm to establish a relationship between features and the ticket price. This model aims to provide accurate and reliable price predictions for movie showings, enabling customized pricing based on input.

The primary advantages in introducing this element will be:

- By charging higher prices during peak demand and lower prices during off-peak times, theatres can optimize their revenue stream.
- Offering discounts to specific demographics (Students, Seniors etc) can attract customer segments.

The dataset used will have the following features in it:

- movie_genre: Categorical value saying about the genre of movie – Action, Comedy, Sci-Fi etc.
- movie_cast_popularity: Numerical value saying about the average box office revenue of previous films.
- movie_release_day: Categorical value saying about the day of release.
- movie_days_since_release: Numerical value saying about the number of days since movie has been released.
- movie_trailer_views: Numerical value saying about the views that the trailer got.

- theatre_showtime: Categorical value whether its morning, afternoon, evening etc.
- theatre_festival_season: Categorical value saying if there is any festival or season.
- theatre_seat_type: Categorical value about the class of seat.
- customer_segment: Categorical value saying about customer demographics like Student, Senior etc.
- customer_age: Numerical value saying about the age of customer.

2) Movie Popularity Prediction

Movie popularity prediction can be very beneficial for movie theatre owners. Predicting the success of upcoming movies can be helpful in making informal decisions about scheduling, marketing and resource allocation. Machine learning model can analyze various features associated with a film and predict its future popularity. Model can classify a movie into one of these classes – high, medium or low.

The primary advantages in introducing this element will be:

- Theatres can allocate prime showtimes and screen sizes to films with higher predicted popularity, maximizing attendance and revenue.
- Theatres can optimize staffing and concession inventory based on predicted popularity.

The dataset used will have following features in it:

- social_media_sentiment: Categorical value saying about the sentiment of mentions or comments of the movie in social media. It can be positive, negative or neutral.
- movie_trailer_views: Numerical value saying about the views that the trailer got.
- early_critic_ratings: Numerical value saying about the early ratings given by film critics.
- movie_cast_popularity: Numerical value saying about the average box office revenue of previous films.
- movie_competing_release: Categorical value saying if there are any parallel competing releases.