SAFARI HUB

Tour Recommendation System

BUSINESS UNDERSTANDING

Tourism is a thriving industry in Kenya, and travelers often face the challenge of choosing the right destinations for their trips. This project aims to address this problem by creating a recommendation system that assists users in discovering personalized tourist destinations in the country.

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PROBLEM STATEMENT

Travelers often struggle to choose the most suitable tourist destinations for their trips. Our project aims to address this challenge by creating a recommendation system that suggests relevant destinations in Kenya based on user preferences and historical interactions.

OBJECTIVES

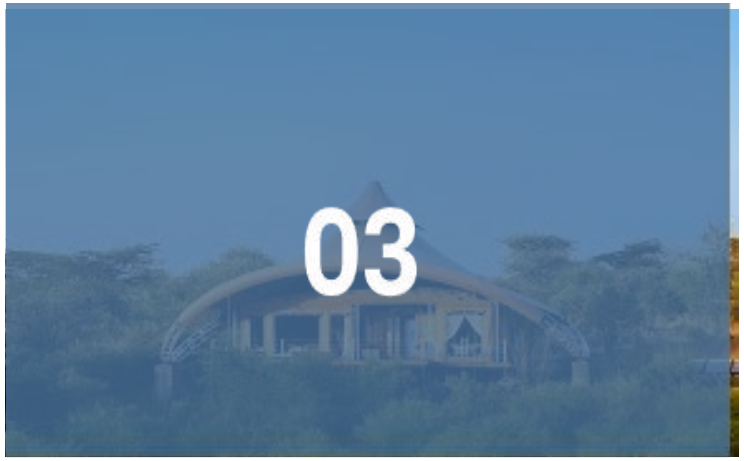
01 Build a collaborative filtering model to recommend destinations.

02 Reduce cold-start problem by incorporating content-based features.

03 Model Recall score ≥ 80%

04 Model Accuracy ≥ 80%

DATA UNDERSTANDING



Data Source

The dataset was scraped using the APIFY Tripadvisor Scraper.

Dataset Overview

5544 entries
10 columns
Missing Values: ratings, images, or price information.

Data Limitations

Missing Values are in ratings, images, or price columns

Limited Price Data: Only 2713 entries have price-related details.

VISUALIZATIONS

Summary of Key Themes

- Safari and Wildlife
- Accommodation and Service
- Location
- Positive Sentiment: Words like "amazing," "great," "beautiful," and "enjoyable" are dominant

Results

Distribution Of Category

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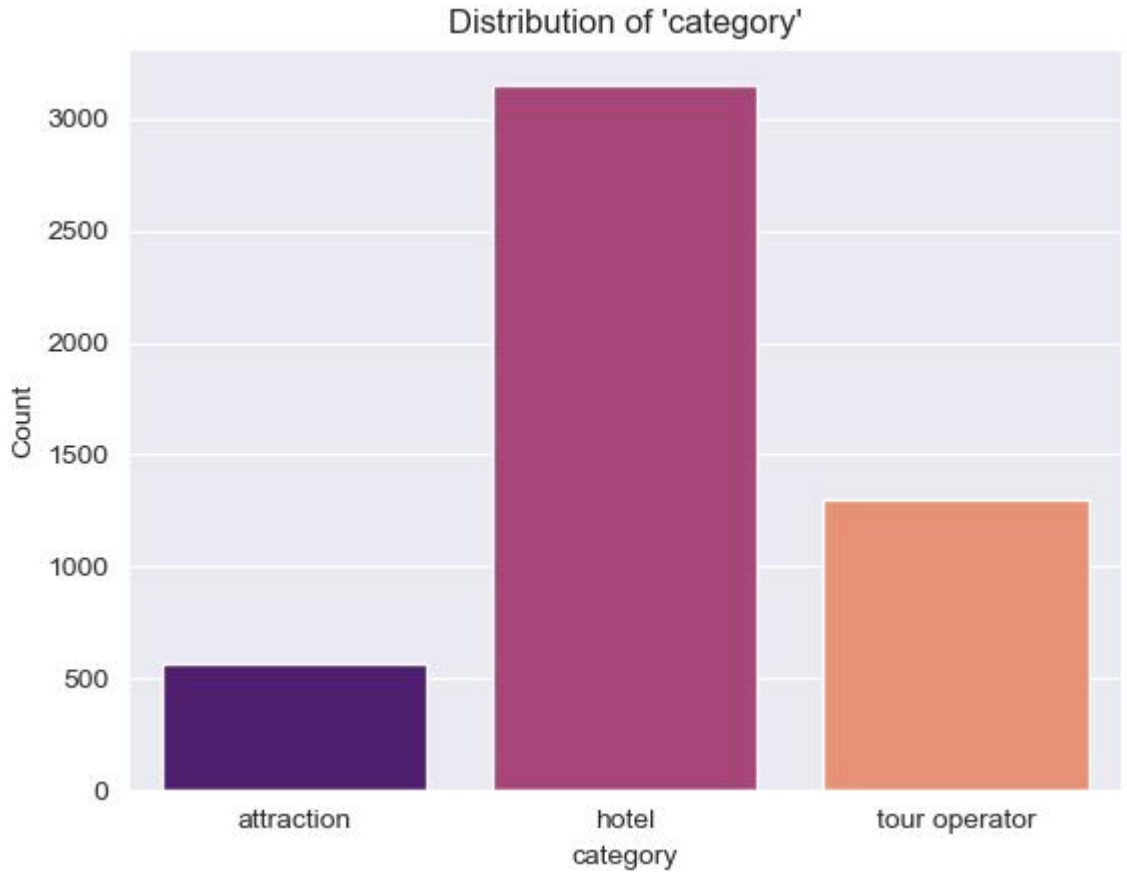
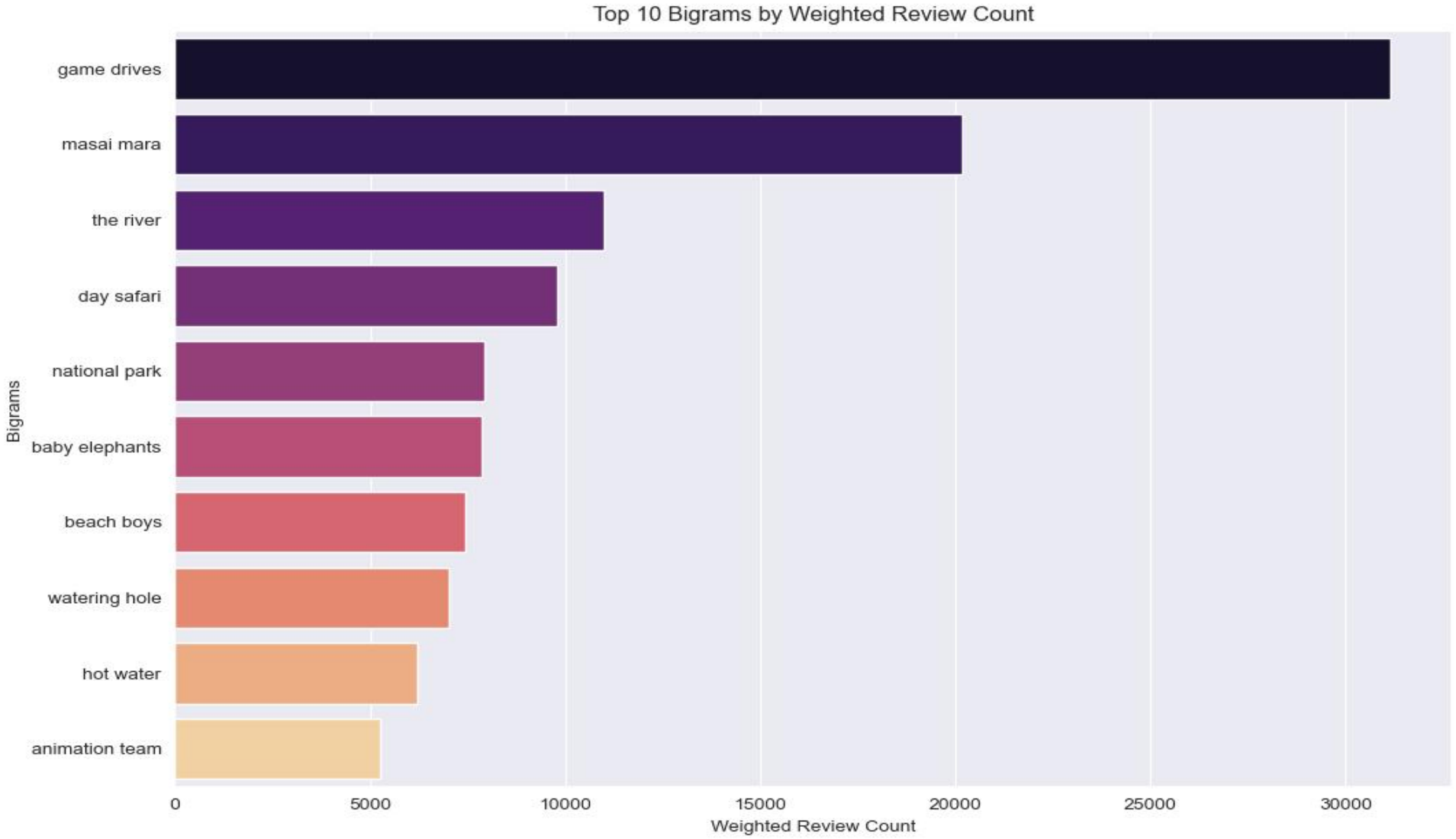


Review Bigrams Visual



most common bigrams in the reviews are the **game drives, masai mara, the river, day safari**

CONCLUSION

The KNN model stands out as the most reliable option for providing recommendations, especially in terms of consistency and lower error metrics.

KNN excels at recommending similar tour operators, offering consistent and relevant options based on proximity to the target operator's location.

RECOMMENDATIONS

Model Tuning: Continue fine-tuning the KNN model to further reduce errors and improve classification metrics

Collaboration with local tour operators and businesses

Provide real-time updates on local events, weather conditions, and special offers relevant to the traveler's current or upcoming location

NEXT STEPS

1

Integrate additional data sources, such as weather data or local events

2

Explore deep learning techniques like neural collaborative filtering (NCF)

3

Combine collaborative filtering and content-based methods to create a hybrid recommendation system for improved accuracy.

THANK YOU