Fragrance Recommender

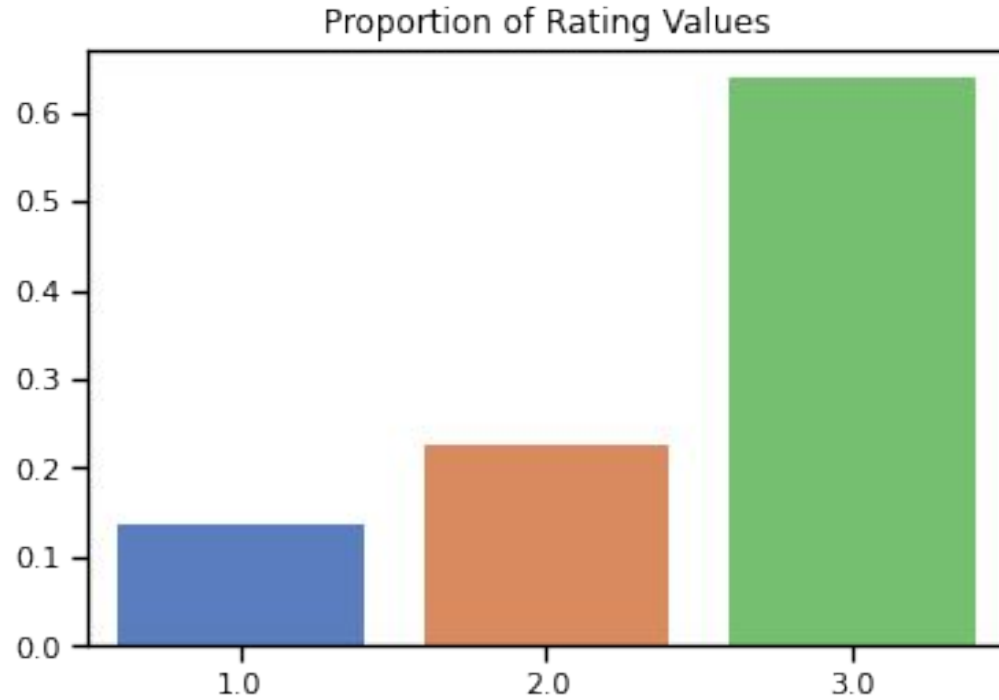## Milestone Report 1
Lucas Reynolds

Overview

- Fragrance websites can be complicated due to the number of brands, scents, and products
- Targeted product recommendations improve customer experience and increase the effectiveness and ROI of marketing campaigns
- Use customer reviews and ratings to build a recommender system
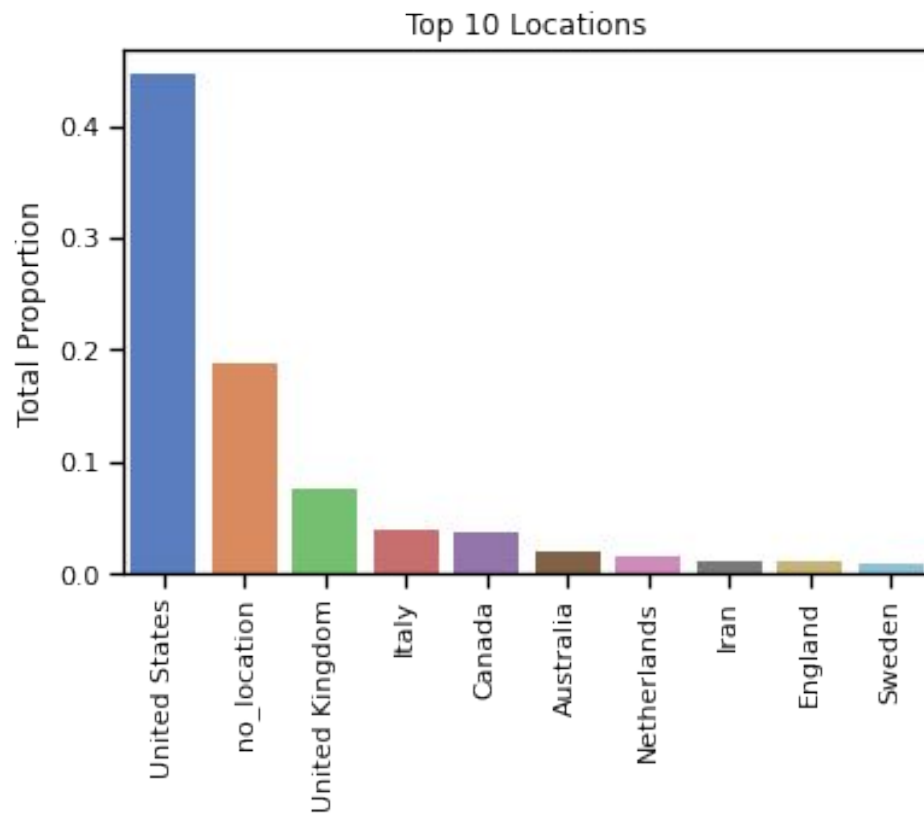
Dataset

- Close to 160,000 fragrance reviews scraped from basenotes.net
- Fields:
    - Rating value: rating of 1, 2, or 3
    - Review ID: unique review identifier
    - User ID: unique identifier of the user who submitted the review
    - Username: name of the user who submitted the review
    - User location: country of the user
    - Scent ID: unique identifier of the scent reviewed
    - Scent name: name of the scent reviewed
    - Scent brand: brand name of the scent reviewed
    - Review text: text included with the review

Distribution of Ratings

Top 10 Countries

Countries

Top 5 Countries by Significant Increase in Avg. Rating		
	Country	**Avg. Difference (Rating)**
1	Guyana	0.3099
2	China	0.2736
3	Denmark	0.2165
4	Slovakia	0.2051
5	Nigeria	0.1908

Top 5 Countries by Significant Decrease in Avg. Rating		
	Drug Name	**Avg. Difference (Rating)**
1	Jordan	-0.3746
2	Kuwait	-0.3360
3	Cuba	-0.3194
4	Morocco	-0.2612
5	Saudi Arabia	-0.2527

Scents

	Top 5 Scents by Significant Increase in Avg. Rating	
	Country	**Avg. Difference (Rating)**
1	Agua Lavanda	0.4975
2	Moschino pour Homme	0.4975
3	Bois des iles Parfum	0.4271
4	Polo Crest	0.4117
5	Italian Cypress	0.4023

	Top 5 Scents by Significant Decrease in Avg. Rating	
	Drug Name	**Avg. Difference (Rating)**
1	cK Free	-1.0786
2	Hot Water	-0.8695
3	Exceptional Because You Are for Men	-0.8498
4	I am King	-0.7572
5	Secretions Magnifique	-0.7274

Brands

	Top 5 Brands by Significant Increase in Avg. Rating	
	Country	**Avg. Difference (Rating)**
1	Sultan Pash	0.3996
2	Fort and Manle	0.3922
3	Revillon	0.3812
4	Fragrances of France	0.3724
5	Sospiro	0.3406

	Top 5 Brands by Significant Decrease in Avg. Rating	
	Drug Name	**Avg. Difference (Rating)**
1	Exceptional	-0.7601
2	Porsche	-0.6092
3	Illuminum	-0.5399
4	Pierre Guillaume	-0.4806
5	People of Labyrinths	-0.4742

Next Steps

- Modeling:
  - Determine best recommendation model for use case
  - Evaluate results
- Outcomes and Recommendations
  - Present final results and outcomes
  - Provide recommendations for possible additional projects or steps