

# Wine Recommendation Engine



By: Zachary Greenberg

# Overview

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- Business Problem
- Data Collection
- Exploratory Data Analysis
- Modeling
- Results
- Next Steps

# Business Problem / Proposal

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- Tons of wines from around the world
- Find similar wines
- Educate consumers to make informed selections



# Data Collection

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- Scraped from Vivino.com
- 1200 wines

\*winery\*: str, the winery that makes that specific wine

\*wine\_name\*: str, the name of the wine

\*wine\_type\*: str, the classification of the wine (ie red, white..)

\*wine\_country\*: str, the country in which the wine was made

\*average\_rating\*: float, the average rating of the wine on Vivino

\*num\_of\_ratings\*: int, the number of ratings for that wine on Vivino

\*wine\_price\*: float, the price per bottle

\*grapes\*: str, the grapes utilized in the wine (ie Chardonnay, Malbec..)

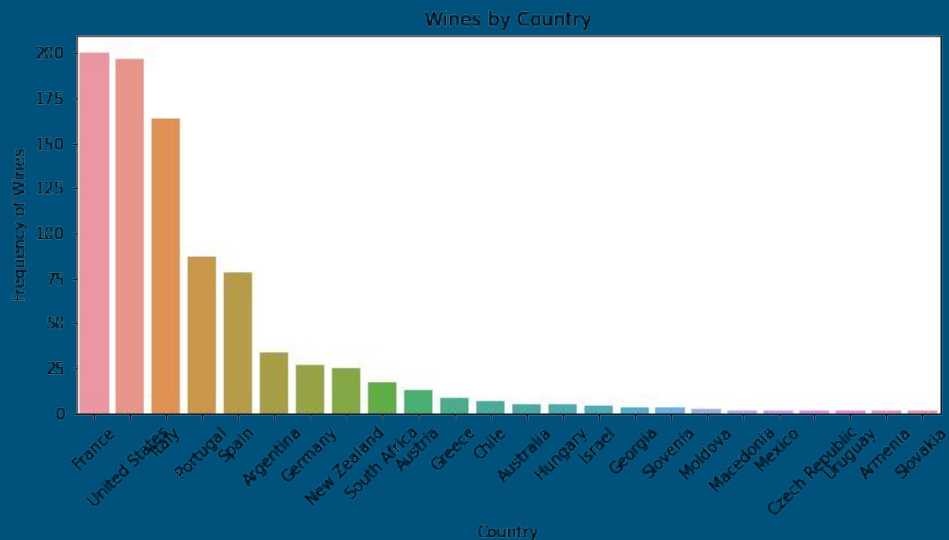
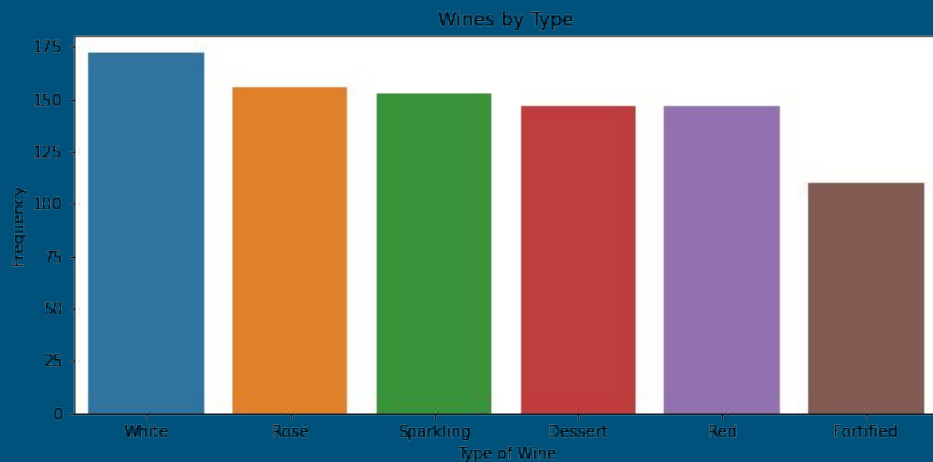
\*alcohol\_content\*: the percent alcohol in the wines

\*reviews\*: str, descriptive text reviews of the wine



# Exploratory Data Analysis

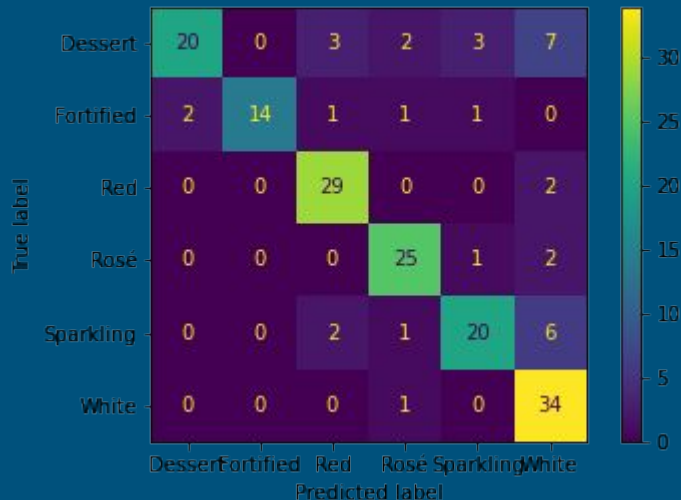
- Wines by Type:





# Modeling

- MultiNomial NB Classification Algorithm



80% Accuracy

- Recommender System

Cosine Similarity & Euclidean Distance

# Results

## - Recommender System using Euclidean Distancing



Domaine du  
Salvard  
Cheverny Rosé  
2016



wine_name	wine_type	wine_country	wine_price	similarity_scores
	Euclidean Distance			
Jean-Luc Colombo Cape Bleue Rosé 2019	Rosé wine	France	13.24	4.054896
Château d'Esclans The Palm Whispering Angel Rosé 2019	Rosé wine	France	15.99	4.465038
Domaine de la Mordorée La Reine des Bois Tavel Rosé 2018	Rosé wine	France	29.99	4.785315
Commanderie de la Bargemone Rosé 2019	Rosé wine	France	16.99	5.013078
Château de Berne Château de Berne Rosé 2018	Rosé wine	France	18.99	5.090035
Domaines Bunan Mas de la Rouvière Rosé 2019	Rosé wine	France	27.99	5.111510
Domaine Le Galantin Bandol Rosé 2019	Rosé wine	France	21.95	5.121920
Âme du Vin Côtes de Provence Rosé 2019	Rosé wine	France	15.98	5.143479
Château Castel des Maures Cuvée Jeanne Côtes de Provence Rosé 2019	Rosé wine	France	24.99	5.282931
Château d'Esclans The Palm Whispering Angel Rosé 2018	Rosé wine	France	18.99	5.289101



# Next Steps

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- Retrieve more wine data
- Use LDA for Topic Modeling
- Create interface for user interaction



DRINK  
MORE  
WINE

# Thank You!

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Email: [zach.a.greenberg@gmail.com](mailto:zach.a.greenberg@gmail.com)

Github: @zachagreenberg

LinkedIn: <https://www.linkedin.com/in/zachary-greenberg-496291208/>