Wine Ratings 2019

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today

Introduction

Our group decided to analyze wine data from 2019 to search for the most quality wines available at that time. In particular, we wanted to find out the most valuable wine with context based on price and score. Data was compiled from the tidytuesday github, who provided a large amount of wine related data from 2019.

Simple data exploration

The first critera we examined was the top 25 best winerys. The best critera was examined based on points.

```
import pandas as pd
# Load the dataset
data = pd.read_csv("winemag-data-130k-v2.csv")

# Create a filtered DataFrame with only specific columns
data_winerys = data[['title', 'winery', 'country','points']]
top_10_wines = data_winerys.nlargest(25, 'points').reset_index(drop=True)

# Make index start from 1 instead of 0
top_10_wines.index = range(1, 26)
top_10_wines
```

	title	winery	country	po
1	Chambers Rosewood Vineyards NV Rare Muscat (Ru...	Chambers Rosewood Vineyards	Australia	10
2	Avignonesi 1995 Occhio di Pernice (Vin Santo ...	Avignonesi	Italy	10
3	Krug 2002 Brut (Champagne)	Krug	France	10

	title	winery	country	po
4	Tenuta dell'Ornellaia 2007 Masseto Merlot (Tos...	Tenuta dell'Ornellaia	Italy	10
5	Casa Ferreirinha 2008 Barca-Velha Red (Douro)	Casa Ferreirinha	Portugal	10
6	Biondi Santi 2010 Riserva (Brunello di Montal...	Biondi Santi	Italy	10
7	Cardinale 2006 Cabernet Sauvignon (Napa Valley)	Cardinale	US	10
8	Château Léoville Barton 2010 Saint-Julien	Château Léoville Barton	France	10
9	Louis Roederer 2008 Cristal Vintage Brut (Cha...	Louis Roederer	France	10
10	Salon 2006 Le Mesnil Blanc de Blancs Brut Char...	Salon	France	10
11	Château Lafite Rothschild 2010 Pauillac	Château Lafite Rothschild	France	10
12	Casanova di Neri 2007 Cerretalto (Brunello di...	Casanova di Neri	Italy	10
13	Château Cheval Blanc 2010 Saint-Émilion	Château Cheval Blanc	France	10
14	Château Léoville Las Cases 2010 Saint-Julien	Château Léoville Las Cases	France	10
15	Charles Smith 2006 Royal City Syrah (Columbia ...	Charles Smith	US	10
16	Quinta do Noval 2011 Nacional Vintage (Port)	Quinta do Noval	Portugal	10
17	Verité 2007 La Muse Red (Sonoma County)	Verité	US	10
18	Château Haut-Brion 2014 Pessac-Léognan	Château Haut-Brion	France	10
19	Cayuse 2008 Bionic Frog Syrah (Walla Walla Val...	Cayuse	US	10
20	Quilceda Creek 2008 Cabernet Sauvignon (Columb...	Quilceda Creek	US	99
21	Williams Selyem 2009 Precious Mountain Vineyar...	Williams Selyem	US	99
22	Tenuta San Guido 2012 Sassicaia (Bolgheri Sas...	Tenuta San Guido	Italy	99
23	Krug 2002 Clos du Mesnil Brut Blanc de Blancs ...	Krug	France	99
24	Le Macchiole 2007 Messorio Merlot (Toscana)	Le Macchiole	Italy	99
25	Domaine Huët 2009 Cuvée Constance 500ml (Vouv...	Domaine Huët	France	99

Your new shiny data visualization

Using a simple bar chart that displays the best winerys by country, we have concluded that based on this dataset, France scored in first for the top winerys, followed by a tie between the US and Italy.

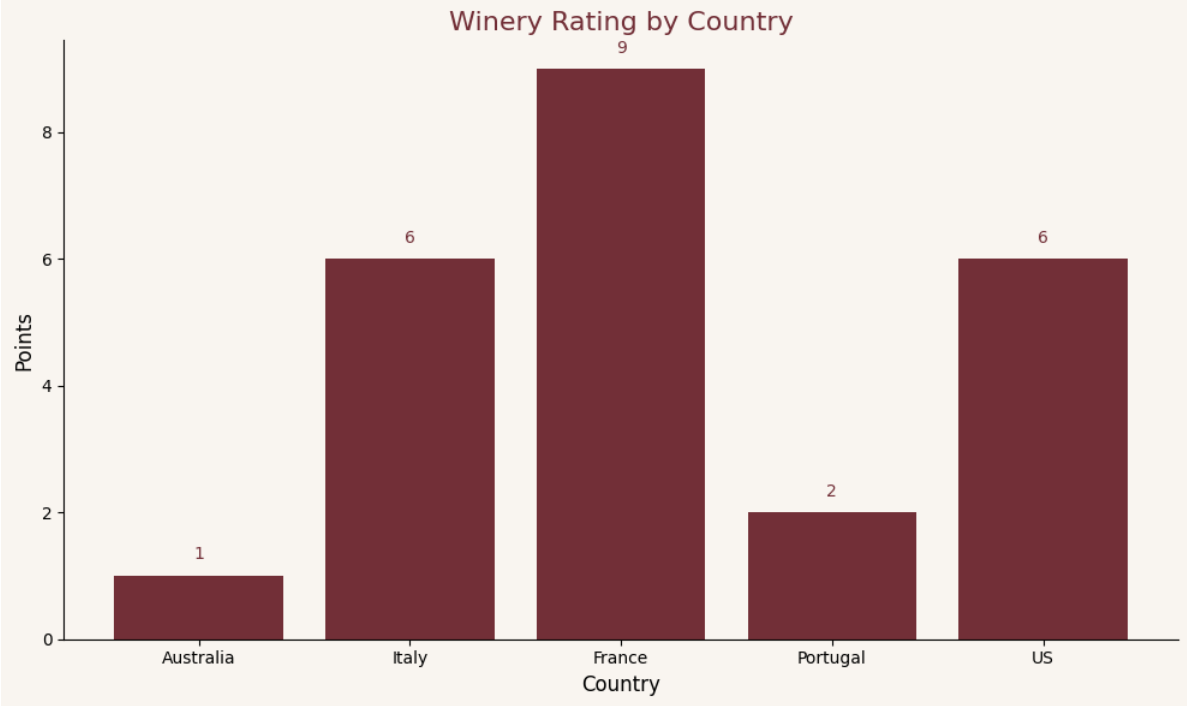
```
# Install matplotlib if not already installed
import sys
!{sys.executable} -m pip install matplotlib
```

```
Requirement already satisfied: matplotlib in c:\users\kylet\appdata\local\programs\python\pyt
packages (3.10.6)
Requirement already satisfied: contourpy>=1.0.1 in c:\users\kylet\appdata\local\programs\pytl
packages (from matplotlib) (1.3.3)
Requirement already satisfied: cycler>=0.10 in c:\users\kylet\appdata\local\programs\python\p
packages (from matplotlib) (0.12.1)
```

```
Requirement already satisfied: fonttools>=4.22.0 in c:\users\kylet\appdata\local\programs\pyt
packages (from matplotlib) (4.60.0)
Requirement already satisfied: kiwisolver>=1.3.1 in c:\users\kylet\appdata\local\programs\pyt
packages (from matplotlib) (1.4.9)
Requirement already satisfied: numpy>=1.23 in c:\users\kylet\appdata\roaming\python\python313
packages (from matplotlib) (2.3.3)
Requirement already satisfied: packaging>=20.0 in c:\users\kylet\appdata\roaming\python\pytho
packages (from matplotlib) (25.0)
Requirement already satisfied: pillow>=8 in c:\users\kylet\appdata\local\programs\python\pyth
packages (from matplotlib) (11.3.0)
Requirement already satisfied: pyparsing>=2.3.1 in c:\users\kylet\appdata\local\programs\pyth
packages (from matplotlib) (3.2.5)
Requirement already satisfied: python-dateutil>=2.7 in c:\users\kylet\appdata\roaming\python\
packages (from matplotlib) (2.9.0.post0)
Requirement already satisfied: six>=1.5 in c:\users\kylet\appdata\roaming\python\python313\si
packages (from python-dateutil>=2.7->matplotlib) (1.17.0)
```

```python
import matplotlib.pyplot as plt

# Data
countries = ['Australia', 'Italy', 'France', 'Portugal', 'US']
wine_counts = [1, 6, 9, 2, 6]

# Wine-themed colors
wine_color = '#722F37'  # a rich red wine color
bg_color = '#F9F5F0'    # off-white, like a wine label

# Create bar chart
plt.figure(figsize=(10, 6), facecolor=bg_color)
bars = plt.bar(countries, wine_counts, color=wine_color)

# Add title and labels
plt.title('Winery Rating by Country', fontsize=16, color=wine_color)
plt.xlabel('Country', fontsize=12)
plt.ylabel('Points', fontsize=12)

# Annotate bars with values
for bar in bars:
    yval = bar.get_height()
    plt.text(bar.get_x() + bar.get_width()/2, yval + 0.2, yval,
             ha='center', va='bottom', fontsize=10, color=wine_color)
```

```
# Set background color for plot area
plt.gca().set_facecolor(bg_color)

# Remove top and right borders
plt.gca().spines['top'].set_visible(False)
plt.gca().spines['right'].set_visible(False)

plt.tight_layout()
plt.show()
```



Conclusion

We hope to show that the data given in 2019 will identify the most valuable wine selections.