

DETAILED PROJECT REPORT

WINE DATA ANALYSIS

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The industry of wine is a very marketing driven business. Wine is now produced all over the world and the products are shipped globally. It is a natural product and the outcome depends heavily on the often on purpose individualized production process. So as a result the products even from the same producer with the same name change every year. On the one hand the customer is gaining more choice but on the other hand he is losing the clear view and it is making the decision troublesome. So even sticking to one producer's product can not guarantee you a standard if this season the grape has low quality. That is why in this opaque jungle reviews are so important. Nearly all buyers more or less rely on reviews because these are the only information they can get beside the metadata of the wine like name, origin etc. So in the past decades wine review itself became an industry. It produced so much data which can be mined for deductions and predictions which will be done here to make better decision when buying wine.

Data Under Standing

country(origin of wine in text)

description(description of the characteristics of the wine in text)

designation(vineyard of the grapes in text)

points (rating in points from 80-100 ascending in quality as integer)

price(in US-Dollar as floating number)

province(province or state where wine is produced as text)

region_1(area in the province as text)

region_2(more specific area of the region_1 as text)

taster_name(name of the taster as text)

taster_twitter_handle(twitter handle of taster as text)

title(name of the wine as text)

variety(variety of the wine as text)

winery(name of the winery as text)

Checking the number of rows & column in your dataset

The number of rows = 29665 and the number of columns = 14

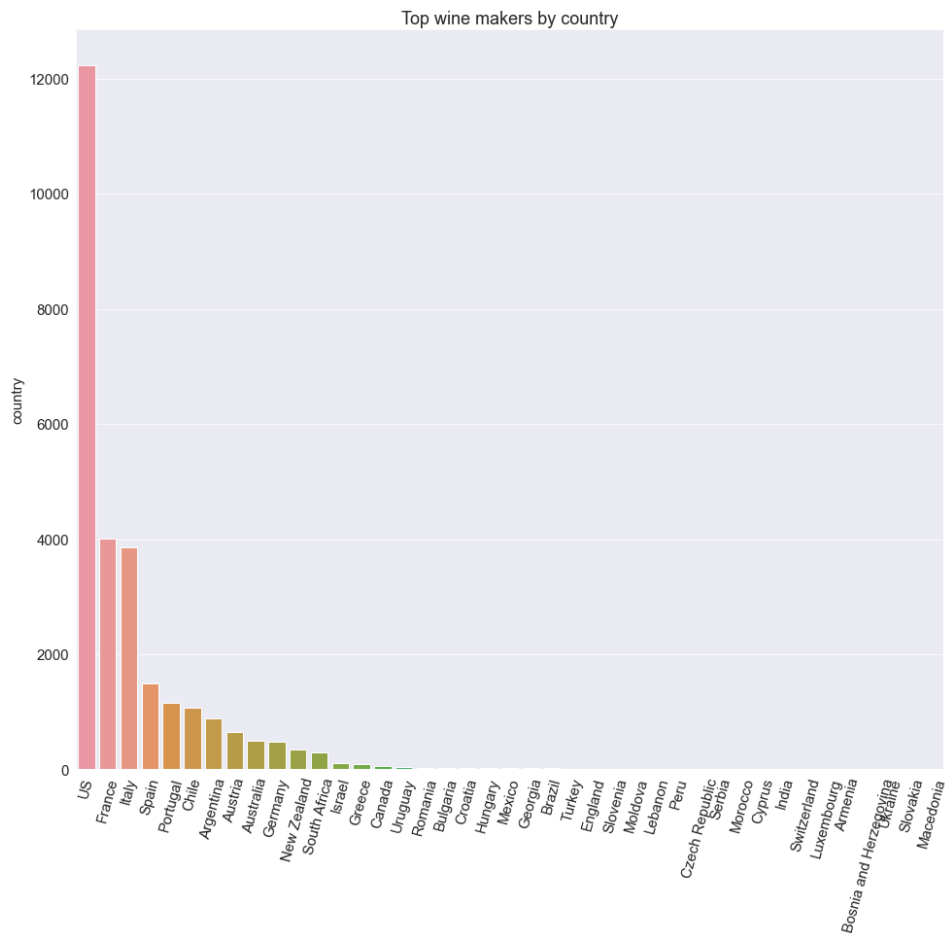
Exploration about the data.

Number Of Wine Makes By Countries

US	12234
France	4014

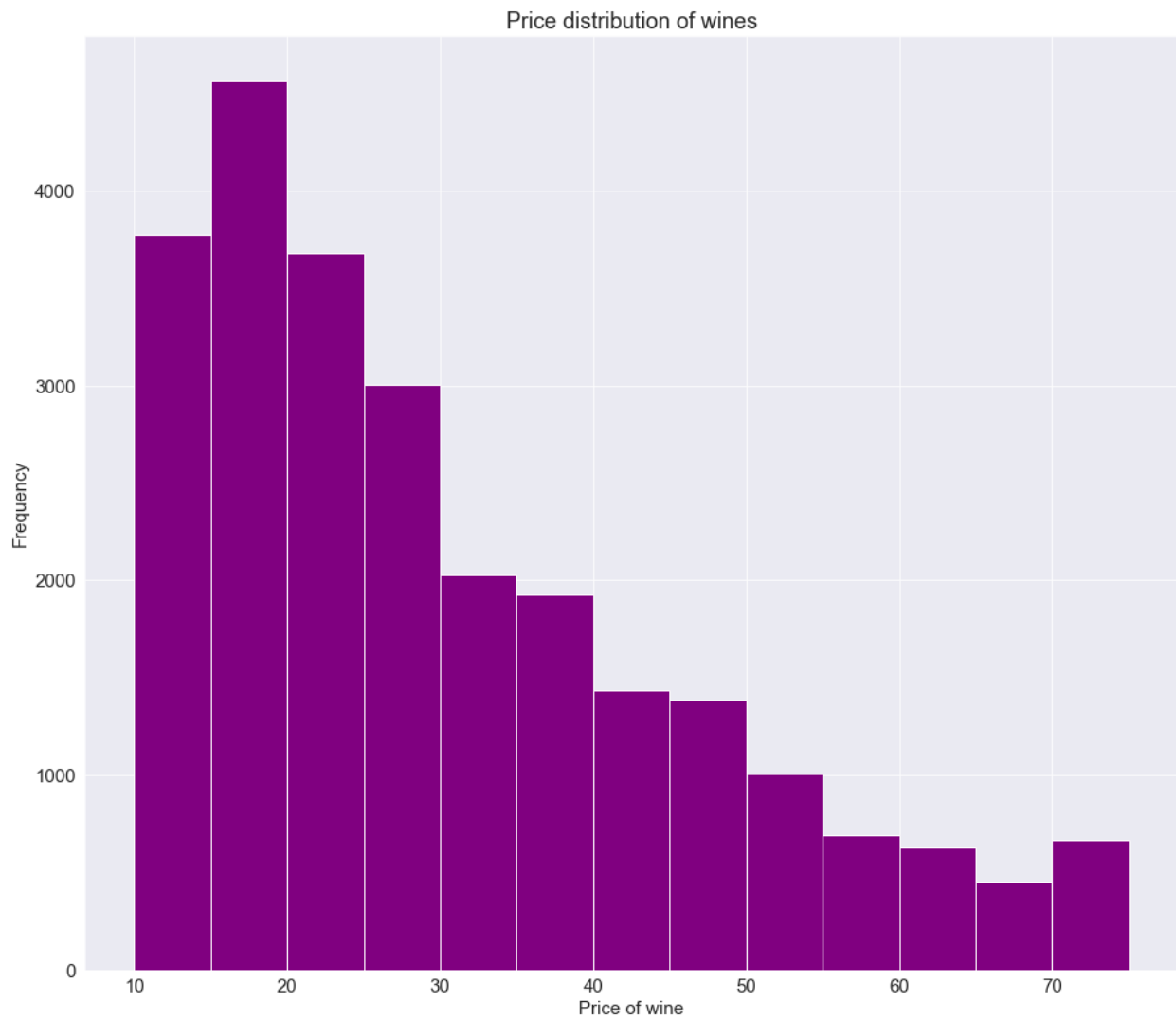
Italy	3863
Spain	1486
Portugal	1156
Chile	1071
Argentina	893
Austria	654
Australia	494
Germany	482
New Zealand	341
South Africa	301
Israel	108
Greece	92
Canada	63
Uruguay	34
Romania	30
Bulgaria	29
Croatia	26
Hungary	23
Mexico	18
Georgia	18
Brazil	17
Turkey	16
England	11
Slovenia	10
Moldova	9
Lebanon	7
Peru	5
Czech Republic	4
Serbia	3

Morocco	3
Cyprus	3
India	2
Switzerland	2
Luxembourg	1
Armenia	1
Bosnia and Herzegovina	1
Ukraine	1
Slovakia	1
Macedonia	1



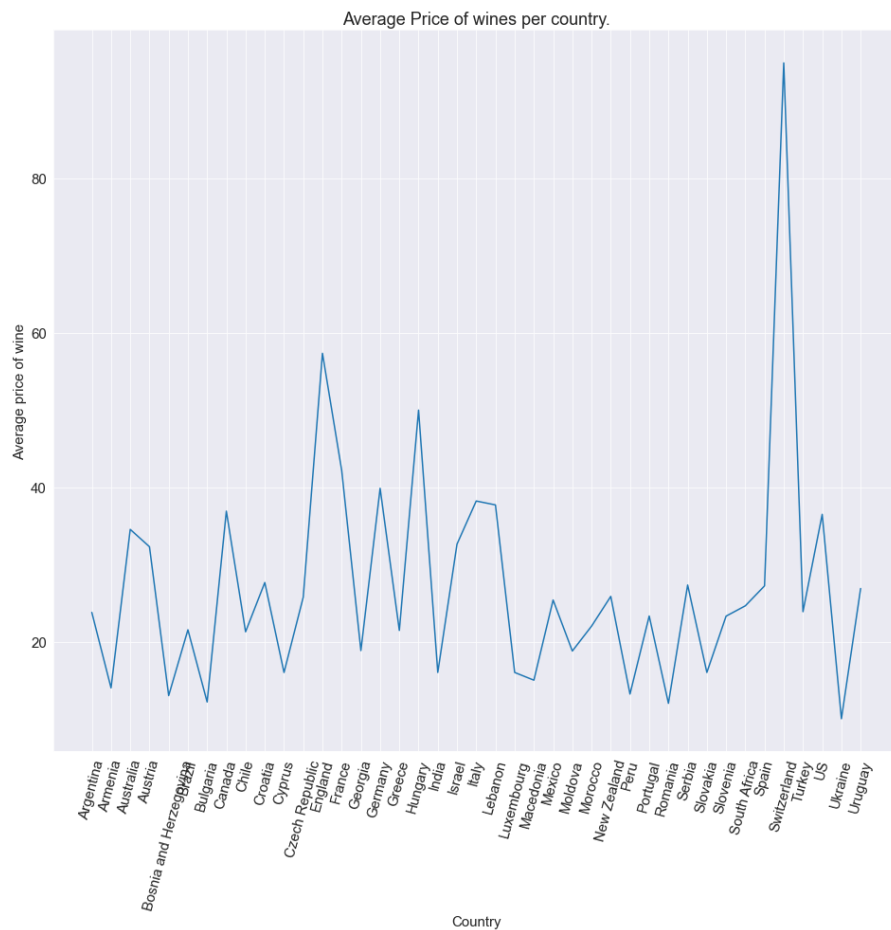
USA is top of the list among the wine making countries at over 12000 units, followed by ITALY & FRANCE slightly below 4000 by volume .

Wine Price Distribution



Most of the wines are on lowside of the price range

Average Price By Country



Switzerland has The highest wine price which is just below 100 per unit while Armenia ,Bosnia and Herzegovina , Bulgaria , Peru , Romania have the lower price as compare to others which is just above 10 per unit and Ukrain has the lowest wine price below 10 per unit . Ther is no other countires which have unit price more than 60 except US. Hungary & England has uint price just below 60.Maximum Number Of coutries have the have there unit price between 20 to 40 .

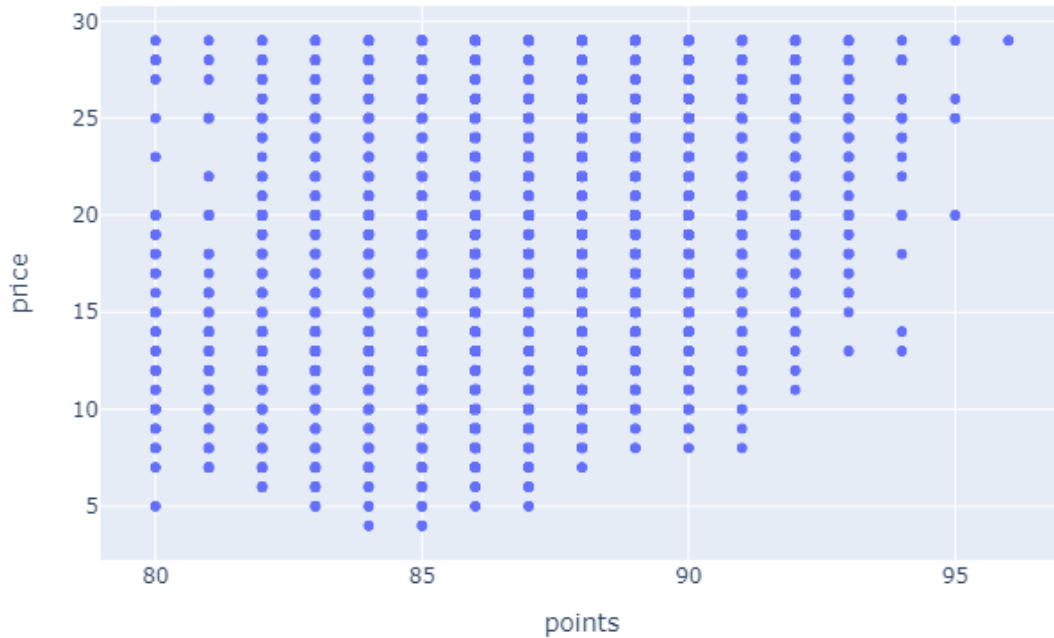
Price Distribution of top 5countries

All the wines unit despite their origins start around 5 ,only French wines have an actual unit of more than 2,000

The higher the ratings points of the wine, the higher the price seems to be .

Country	AVG PRICE
Switzerland	95
England	57.36
Hungary	50
France	42.21
Germany	39.87

Correlation between Price & Point



Consider paying max 30/unit for a bottle which is quite acceptable, so here we can see the points begin at 80.

You can find a bottle at any price but to have a bottle at min 94 pts, you have to pay at least 15\$

Q. Which countries have the top 5 highly rated wine?

<u>country</u>	<u>points</u>
<u>Australia</u>	<u>100</u>
<u>Italy</u>	<u>100</u>
<u>US</u>	<u>99</u>
<u>US</u>	<u>99</u>
<u>Australia</u>	<u>98</u>

Italy & Australia has the most rated wine in the world, followed closely by the USA .

Q.Which wine has the highest unit price per wine rating?

<u>Country</u>	<u>Price Per UNIT</u>
<u>US</u>	<u>21.25</u>
<u>Spain</u>	<u>21.25</u>
<u>Argentina</u>	<u>21</u>
<u>Chile</u>	<u>17.4</u>
<u>Italy</u>	<u>17.2</u>

First I have to add a new column to hold the unit price per wine rating

It's clear that the US wine is highly priced per unit rating. Spain,Argentina,Chile & Italyfollow in that order.

Q.Which 10 wine varieties are rated the least

<u>Country</u>	<u>Points</u>	<u>Variety</u>	<u>Price</u>
<u>France</u>	<u>80</u>	<u>Cabernet Sauvignon</u>	<u>8</u>
<u>Spain</u>	<u>80</u>	<u>Sparkling Blend</u>	<u>14</u>
<u>Italy</u>	<u>80</u>	<u>Merlot</u>	<u>12</u>
<u>Argentina</u>	<u>80</u>	<u>Sémillon</u>	<u>17</u>
<u>Argentina</u>	<u>80</u>	<u>Malbec</u>	<u>20</u>
<u>Argentina</u>	<u>80</u>	<u>Sémillon</u>	<u>15</u>
<u>Argentina</u>	<u>80</u>	<u>Torrontés</u>	<u>12</u>
<u>Argentina</u>	<u>80</u>	<u>Cabernet Sauvignon-Malbec</u>	<u>12</u>
<u>France</u>	<u>80</u>	<u>Red Blend</u>	<u>11</u>
<u>Chile</u>	<u>80</u>	<u>Chardonnay</u>	<u>15</u>

The least rated wines all have a tie of 80 points each. Most of them are from Argentina.

Q. How many varities of wine are there in production all over the world ?

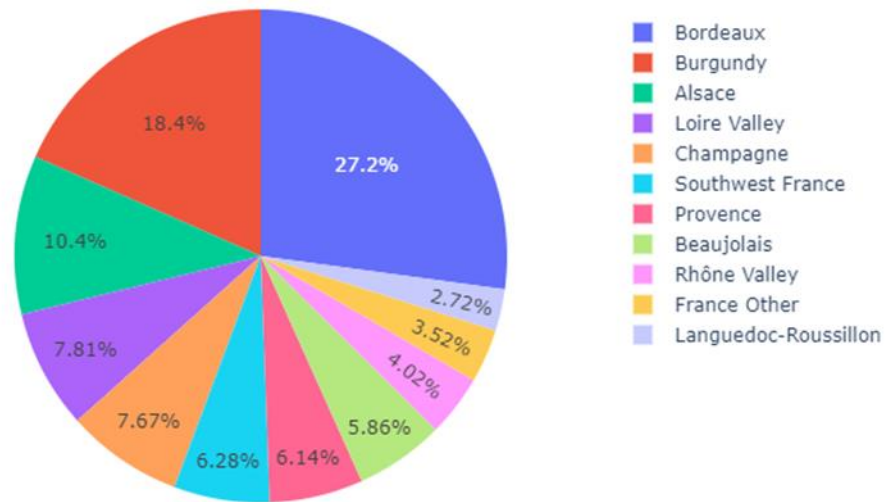
There are 481 different varieties of wines in the world.

Q.Which wines are rated the highest in the world?

<u>country</u>	<u>points</u>
<u>Australia</u>	<u>100</u>
<u>Italy</u>	<u>100</u>
<u>US</u>	<u>99</u>
<u>US</u>	<u>99</u>
<u>Australia</u>	<u>98</u>

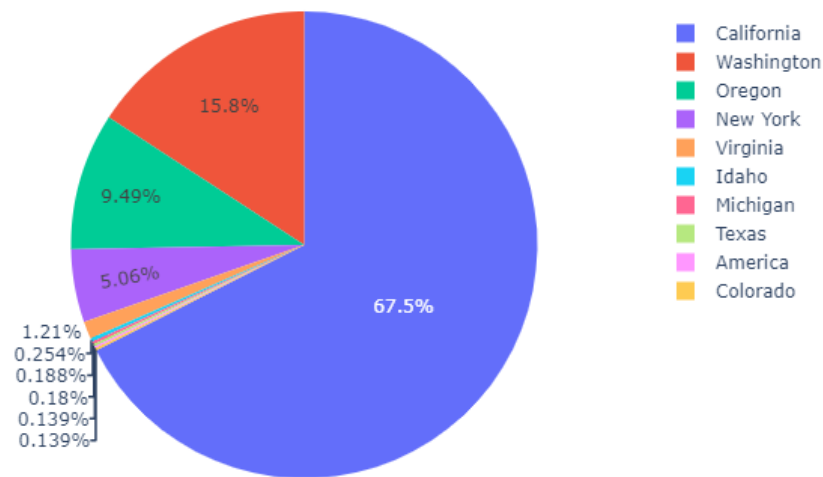
Italy's Prugnolo Gentile & Australia's Muscat are the top rated wine in the world.

Zoom in to French province



Although Bordeaux is the most popular province for wine, France has quite a list of good wines through the country.

US provinces



California is the place-to-be if you want to produce wine in US with over 67.5%, following with Washington and Oregon who cover already over 90% of the market.

Q. Which Variety of wine is mentioned here the most

The variety Pinor Noir Wine Is Mentioned Here The most followed by Chardonnay wine .

INFERENCES & CONCLUSIONS

I've drawn many inferences from the data. Here's a summary of them .

About the dataset

The number of rows are 29665 and the number of columns are 14 .

Top wine making countries

USA is top of the list among the wine making countries at over 12000 units, followed by ITALY & FRANCE slightly below 4000 by volume .

Wine Price Distribution

Most of the wines are on the lower side of the price range .

Switzerland has the highest wine price which is just below 100 per unit while Armenia, Bosnia and Herzegovina, Bulgaria, Peru, Romania have the lower price as compared to others which is just above 10 per unit and Ukraine has the lowest wine price below 10 per unit. There are no other countries which have unit price more than 60 except US. Hungary & England have unit price just below 60. Maximum Number Of countries have their unit price between 20 to 40 .

Top 10 countries as per wine price distribution

As you can see while all the wines unit despite their origins start around 5 ,only French wines have an actual unit of more than 2,000. The higher the ratings points of the wine, the higher the price seems to be .

Relation between the price & rating of a wine

After analyzing the dat we have consider paying max 30/unit for a bottle which is quite acceptable, so here we can see the points begin at 80. You can find a bottle at any price but to have a bottle at min 94 pts, you have to pay at least 15 unit .

Countries with top 5 highly rated wines

We can clearly see that Italy has the most rated wine in the world, followed closely by the USA and Australia .

Countries with highest unit price per wine rating

It's clear that the US wine is highly priced per unit rating. Spain,Argentina,Chile & Italy follow in that order.

About the 10 least rated wines

The least rated wines all have a tie of 80 points each. Most of them are from Argentina

total number of wines varities in the world

There are 465 different varieties of wines in the world.

About the world's highest rated wines

Italy's Prugnolo Gentile & Australia's Muscat are the top rated wine in the world.

Top Variety Wine mentioned in the most in the dataset

Italy's Prugnolo Gentile & Australia's Muscat are the top rated wine in the world.

About the French Province

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About The US Province

California is the place-to-be if you want to produce wine in US with over 67.5%, following with Washington and Oregon who cover already over 90% of the market.