Keeping a High Wine Rating

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Goals

- Reach a wider customer base (price driven)
- Maintain reputation of being a high quality produce
- Determine factors that are most significant in a wine's rating.



Exploratory Data Analysis

Factors to consider:

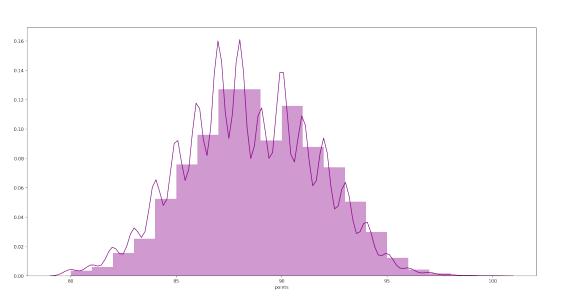
- Price
 - Are prices affected considering different CPI of various locations?
- Variety
 - How many different types of wine should be considered?
- Location
 - Does one location have more influence than others?

Data Source: Wine Enthusiast

WE 100 Point Scale



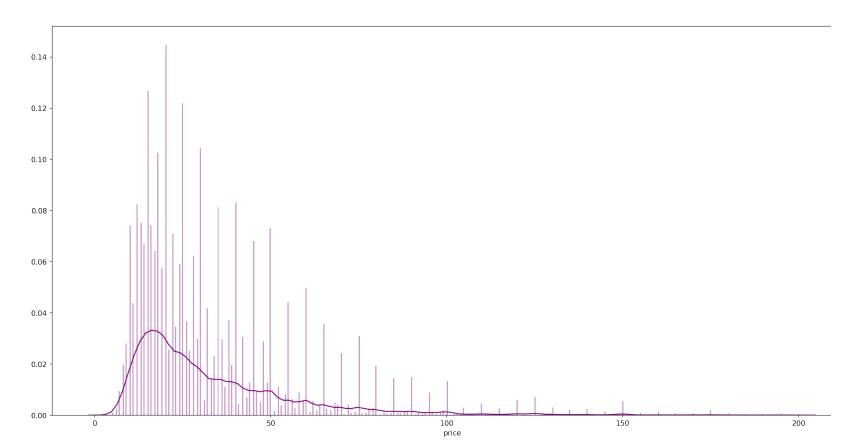
- Ratings do not tend to go below 80
- Ratings are normally distributed



- 98–100 Classic
- 94–97 Superb
- 90–93 Excellent
- 87–89 Very good
- 83–86 Good
- 80–82 Acceptable
- Average is 88
- Median is 88

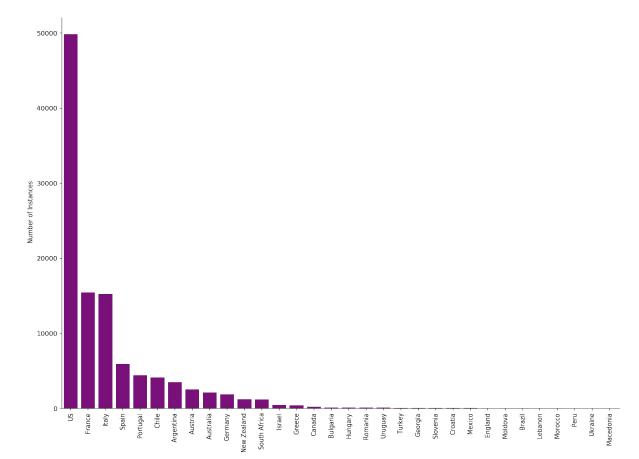
EDA: Pricing

- Are prices affected considering different CPI of various locations?
- Original Dataset had wines from \$4 \$3000.



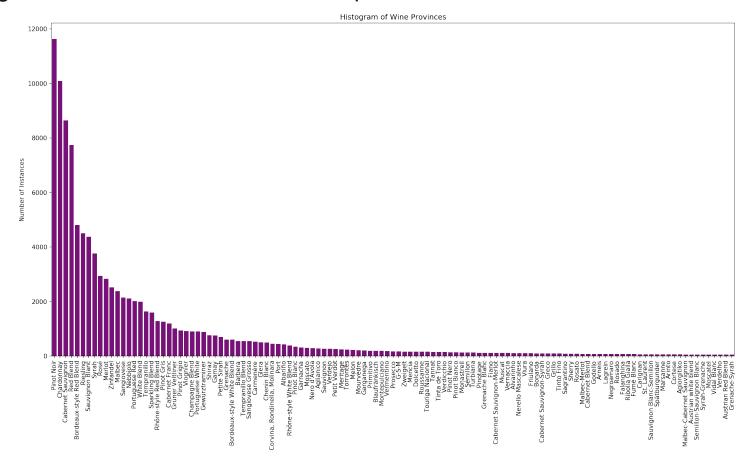
EDA: Location

- How important is Geography?
- Original Dataset had 42 countries represented.



EDA: Variety

- 100 Wines Considered
- Original Dataset had 691 varietals represented



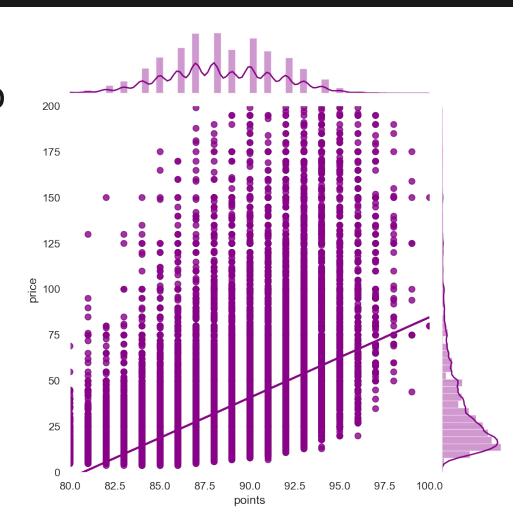




Price range from \$4 to \$200

Rating from 80 to 100

There is a weak correlation

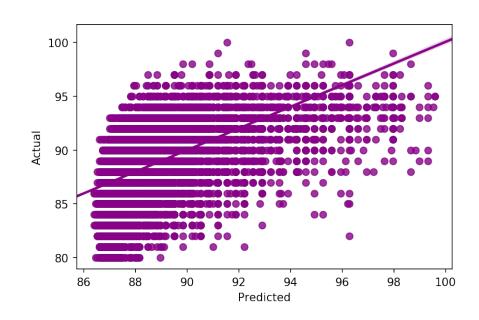




Predicting Points using Price

Price can be used individually

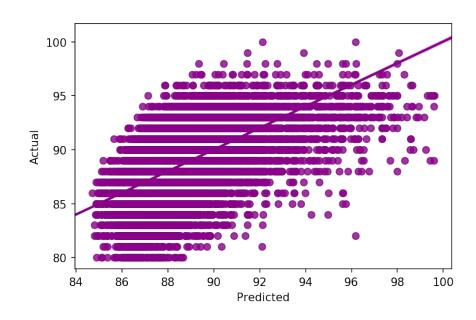
Predictions based on price generally lie within 1-2 points



Do predictions change when we use Variety & Price?



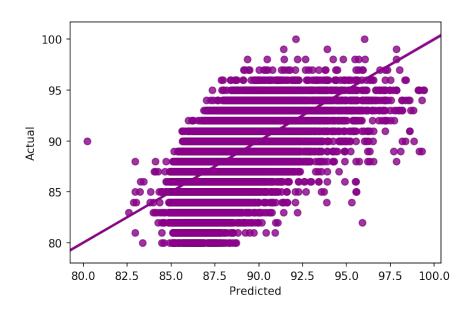
We see little change when variety is added to Price



Do predictions change when we add Country to Variety & Price?



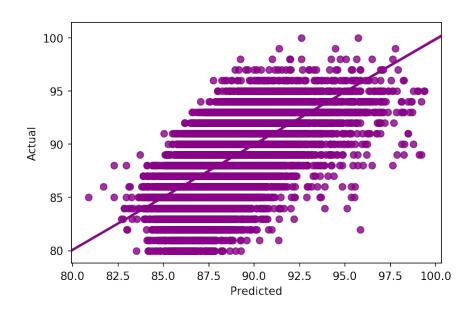
We see an overall rating decrease, but did not lose accuracy in our prediction.



Is Province a better predictor than Country?



Narrowing the scope of location has little effect on Rating







Price is important

BUT Price is not the only thing that matters

The effect of one factor often creates bias in another





Investigate how the variables are affecting each other

Feature Engineering

Identify geographies & varietals to invest in

