**Motivation**

Wine is an expensive hobby, and the majority of people have neither the time nor the money to discover their own flavor palate. Typically, the only claim one can make about a given glass of wine is whether or not it was enjoyable.

For this reason it is incredibly difficult for one to discover new wine. Our project looks to simplify the endeavor, through techniques in the realm of unsupervised learning and recommendation.

Formally, we define the problem as follows. Given design matrix $X$, we look to assign each example $x$ to one of $k$ clusters. Then we seek to output an optimal recommendation $w$.

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**Future Work**

Tuning score, price and similarity hyperparameters within cost; implementing GloVE vectors over tf-idf scores.