Best Value Wine

# Introduction and Business Problem

I am conducting a feasibility study into starting a wine merchant business. The wine trade is a competitive business and the supply chain is extremely complicated as there are thousands of wines to choose from and thousands of wine producers across the world. Customers have many options for purchasing wine, such as: Supermarket, specialist wine merchant shop, online wine clubs and subscription services.

In order to succeed in this competitive market, I need to have a Unique Selling Point (USP). I hope to make this my ability to source high quality wines at a price that is affordable to the every-day wine drinker (e.g. £10 - £50). These wines would be of the same quality as equivalent wines that sell for much higher prices. There are thousands of wines produced (operating from wineries) across the world. I need a model which will help me identify those high-quality wine producers, who are unable to charge the premium prices of well-known wine brands and regions. It is not feasible to taste all those wines, so I must make my selection based on geographic regions, expert ratings and other relevant characteristics.

The primary output will be:

* a ranking list of wine producing regions that offer the best value wine (from Data Set)
* The identification of wineries within these regions (from Four Square)

The selection of wineries will be based on the following:

* Regions / Provinces that have been rated highly for the quality of their wine
* Wineries, within those regions, which are rated highly by wine drinkers

# Data Sources

My primary data source will be a data set of Wine Ratings, I have downloaded this as a csv file from Kaggle. It contains the ratings of 129,970 different wines, and has the following columns:

* Country
* Description
* Designation
* Points
* Price
* Province
* Region 1
* Region 2
* Taster Name
* Taster Twitter Handle
* Title
* Variety
* Winery

There are some interesting features in this data set worth exploring, for example::

* Points (the quality rating of the wine, scored on a scale 1 - 100)
* Price (the average selling price of a bottle)

**Points** are scored by an expert wine critic (Taster). **Price** is determined by various factors, such as region, name of wine producer, grape variety and marketing. Some key insights I am looking to discover are:

* How strong is the correlation between Price and Points (Quality)?
* Is there a correlation between Province / Region and Quality?
* Is there a correlation between Province / Region and Price?

## Data from FourSquare and Google

I will use the **Google geo-coordinate API** to obtain the Latitude and Longitude of the regions and specific wineries.

I will use FourSquare to:

* Identify Wineries within each region
* obtain the ratings of individual wineries

I will also use Foursquare to elaborate my list of recommended wineries with other information, relevant to the purchase of wine.