Jaclyn

1. Intro

As data scientists for Budweiser we were thrilled to help decide on the type of beer that will compete with the booming microbrewery growth in the United States. During this discussion we will be presenting an analysis of beer bitterness (or IBU) and alcohol by volume (ABV) by state. This will lead into our recommendations for new beer releases by regional market in the US. We expect Budweiser to be able to compete and excel in this rapidly expanding sector.

Huy Hoang Nguyen

(Speak a little about yourself)

* Data cruncher
* Hype crew

Jaclyn Coate

* Architect
* Visualization lover

Huy

Data Crunching

Jaclyn

1. Breweries by State
   * As we can see there is a large distribution of breweries throughout the United States. California, Colorado, Michigan, and Oregon are all some of the leaders is breweries in the US. Texas gets an honorable mention and is not close behind.

Jaclyn

1. Median ABV by State
   * In reviewing our bar chart and geo map of you can see that there is not a lot of variation in the color spectrum. This immediately tells us that while there may be some high ABVs present but the median ABV is pretty centralized in a small range.
2. State with highest ABV
   * The state with the highest ABV is Colorado at 12.8%
3. ABV Summary Statistics
   * From the summary statistics we can see the median ABV has a small distribution. The majority of the beers (75%) that are produced fall between 5.5% - 5.8%. This is slightly higher than the mass-produced Budweiser products of 4.2%. Whenever local consumers are given an option, they are likely to choose a microbrew that contains a slightly higher ABV than your traditional products. For this reason, we will be recommending new Budweiser releases by region and of a different ABV than what Budweiser is used to.

Huy

1. Median IBU by State
   * XXXXX
2. State with highest IBU
   * The state with the highest IBU is Oregon at 138
3. IBU Summary Statistics
   * XXXX

Jaclyn

1. Relationship between bitterness and alcoholic content
   * There does seem to be a relationship between IBU and ABV. In order to investigate further we will look for correlation.
   * Based on the above scatter plot and correlation line we can see a positive linear relationship. This tells us that as the alcohol content (ABV), in general, so does the bitterness (IBU). This linear correlation means there is a relationship but does not mean that we can provide causation. Therefore, in general we can confirm that when the ABV of a beer rises so will it's bitterness. However, one does not necessarily cause the other.