

# Team Dragonfly: One-Hot Coffee

## Overview

This project endeavored to use consumer ratings in combination with coffee features to elucidate how different features of coffee influence its taste. 30-40% of adults worldwide drink coffee daily, and understanding which factors are important can guide companies to procure and sell coffees that will have the best success with consumers.

## Problem Summary

- Many factors to consider when choosing which coffees to sell
- Which factors are important to a consumer's rating of the taste?

## Solution Summary

- Use linear modeling methods to discover the relationship between coffee's features and the consumer's rating
- Examine the coefficients to determine important features

## Key Results

- Strong positive correlation – features to seek out
  - Africa/Arabia, espresso, estate, light and medium-light roast
- Negative correlation – features to avoid
  - Pod/capsule, medium-dark, dark, and very dark roast
- No correlation – features that have little impact
  - Regions: Asia/Pacific, South America
  - Organic, fair trade, decaffeinated, blend, medium roast

## Future Considerations

- Include price information in the modeling
  - Which features correlate with higher price and better taste?
  - Consider profit – do some features also increase costs of procuring and selling a certain coffee?
- Key words in reviews
  - Which flavor components correlate with higher ratings?
  - Using the positively correlated words in marketing materials may improve consumer perception of certain coffees

alpha=0.1

region_africa_arabia	0.660580
region_caribbean	-0.038320
region_central_america	0.044232
region_hawaii	0.015138
region_asia_pacific	0.000000
region_south_america	0.000000
type_espresso	0.458025
type_organic	0.000000
type_fair_trade	0.000000
type_decaffeinated	0.000000
type_pod_capsule	-0.267004
type_blend	0.000000
type_estate	0.155451
Light	0.345396
Medium-Light	0.625126
Medium	0.000000
Medium-Dark	-0.849087
Dark	-0.954651
Very Dark	-0.817816