R Visualization 1

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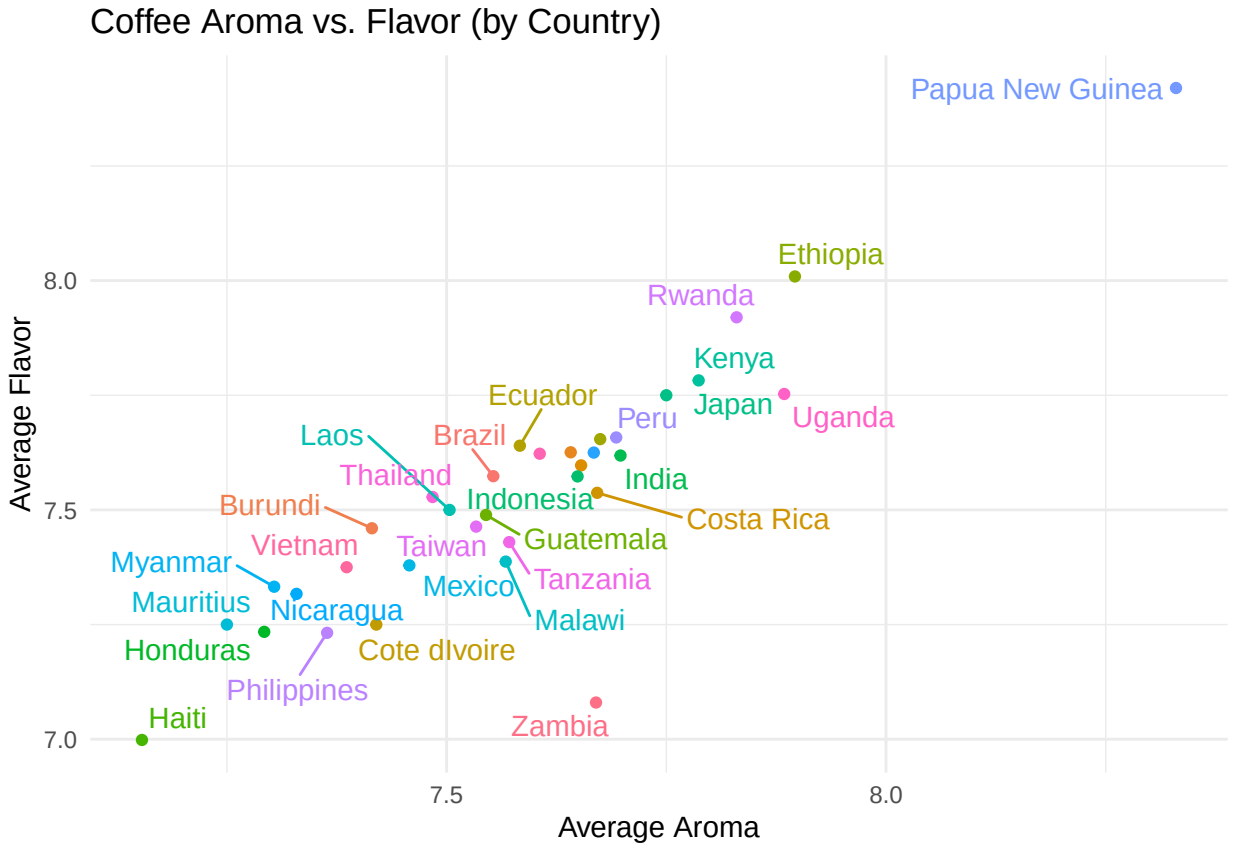
```r
# Install and load library
install.packages("tidyverse")
install.packages("ggrepel")

library(tidyverse)
library(ggrepel)

# Read data from csv file
coffee <- read_csv("coffeeByCountry.csv")

# Data Overview
summary(coffee)
```

```
##  Country.of.Origin    AVG_Aroma       AVG_Flavor    AVG_Aftertaste
##  Length:34          Min.   :7.153   Min.   :6.998   Min.   :6.830
##  Class :character   1st Qu.:7.429   1st Qu.:7.376   1st Qu.:7.252
##  Mode  :character   Median :7.577   Median :7.533   Median :7.433
##                     Mean   :7.583   Mean   :7.531   Mean   :7.421
##                     3rd Qu.:7.674   3rd Qu.:7.636   3rd Qu.:7.563
##                     Max.   :8.330   Max.   :8.420   Max.   :7.894
##   AVG_Acidity       AVG_Body      AVG_Balance    AVG_Uniformity
##  Min.   :7.000   Min.   :6.027   Min.   :6.970   Min.   : 9.330
##  1st Qu.:7.373   1st Qu.:7.344   1st Qu.:7.379   1st Qu.: 9.781
##  Median :7.506   Median :7.544   Median :7.495   Median : 9.919
##  Mean   :7.521   Mean   :7.503   Mean   :7.510   Mean   : 9.837
##  3rd Qu.:7.648   3rd Qu.:7.659   3rd Qu.:7.671   3rd Qu.:10.000
##  Max.   :8.330   Max.   :8.080   Max.   :8.250   Max.   :10.000
##  AVG_Clean.Cup    AVG_Sweetness     AVG_Moisture      AVG_Quakers
##  Min.   : 8.555   Min.   : 7.619   Min.   :0.00000   Min.   :0.00000
##  1st Qu.: 9.857   1st Qu.: 9.812   1st Qu.:0.06638   1st Qu.:0.00000
##  Median : 9.958   Median : 9.951   Median :0.08333   Median :0.01907
##  Mean   : 9.838   Mean   : 9.756   Mean   :0.08391   Mean   :0.11434
##  3rd Qu.:10.000   3rd Qu.:10.000   3rd Qu.:0.11000   3rd Qu.:0.20291
##  Max.   :10.000   Max.   :10.000   Max.   :0.13000   Max.   :0.50000
##  AVG_Category.One.Defects AVG_Category.Two.Defects    Rec_Cnt
##  Min.   :0.0000           Min.   :0.000            Min.   :  1.00
##  1st Qu.:0.0000           1st Qu.:1.091            1st Qu.:  3.25
##  Median :0.1654           Median :2.796            Median : 15.00
##  Mean   :0.6292           Mean   :2.580            Mean   : 39.35
##  3rd Qu.:0.6758           3rd Qu.:3.595            3rd Qu.: 43.00
##  Max.   :9.2500           Max.   :6.780            Max.   :236.00
```

```r
glimpse(coffee)
```

```
## Rows: 34
## Columns: 15
## $ Country.of.Origin        <chr> "Brazil", "Burundi", "China", "Colombia", "Co~
## $ AVG_Aroma                <dbl> 7.553106, 7.415000, 7.641250, 7.653060, 7.671~
## $ AVG_Flavor               <dbl> 7.573561, 7.460000, 7.625625, 7.597104, 7.537~
## $ AVG_Aftertaste           <dbl> 7.440530, 7.250000, 7.484375, 7.524699, 7.534~
## $ AVG_Acidity              <dbl> 7.511439, 7.415000, 7.578125, 7.560000, 7.573~
## $ AVG_Body                 <dbl> 7.544545, 7.290000, 7.573750, 7.609508, 7.537~
## $ AVG_Balance              <dbl> 7.531515, 7.415000, 7.548125, 7.708415, 7.637~
## $ AVG_Uniformity           <dbl> 9.884924, 10.000000, 9.958125, 9.934426, 9.85~
## $ AVG_Clean.Cup            <dbl> 9.853485, 10.000000, 9.958125, 9.945355, 9.86~
## $ AVG_Sweetness            <dbl> 9.949394, 10.000000, 9.916250, 9.952678, 9.90~
## $ AVG_Moisture             <dbl> 0.08234848, 0.06000000, 0.09437500, 0.0620218~
## $ AVG_Quakers              <dbl> 0.44696970, 0.00000000, 0.50000000, 0.2076502~
## $ AVG_Category.One.Defects <dbl> 0.12878788, 0.00000000, 0.00000000, 0.3770491~
## $ AVG_Category.Two.Defects <dbl> 3.5984848, 2.5000000, 4.0000000, 1.9398907, 2~
## $ Rec_Cnt                  <dbl> 132, 2, 16, 183, 51, 1, 3, 21, 44, 181, 6, 53~
```

```r
# Use ggplot: visualize with Scatter plot
ggplot(data = coffee,
       mapping = aes(x=AVG_Aroma, y=AVG_Flavor,
                     color=Country.of.Origin,
                     label = coffee$Country.of.Origin)) +
  geom_point() +
  geom_text_repel(max.overlaps = 15) +
  theme_minimal() +
  theme(legend.position = "none") +
  labs(title = "Coffee Aroma vs. Flavor (by Country)",
       x = "Average Aroma",
       y = "Average Flavor")
```


Coffee Aroma vs. Flavor (by Country)
Papua New Guinea
Ethiopia
Rwanda
Kenya
Ecuador
Japan
Uganda
Peru
Laos
Brazil
Thailand
India
Burundi
Indonesia
Costa Rica
Guatemala
Vietnam
Taiwan
Myanmar
Tanzania
Mexico
Mauritius
Nicaragua
Malawi
Honduras
Cote dIvoire
Philippines
Haiti
Zambia
8.0
7.5
7.0
7.5
8.0
Average Flavor
Average Aroma