

CQI Variables  
From Kaggle

207 rows  
41 columns

```
#information about columns name  
df.columns
```

```
Index(['Unnamed: 0', 'ID', 'Country of Origin', 'Farm Name', 'Lot Number',  
      'Mill', 'ICO Number', 'Company', 'Altitude', 'Region', 'Producer',  
      'Number of Bags', 'Bag Weight', 'In-Country Partner', 'Harvest Year',  
      'Grading Date', 'Owner', 'Variety', 'Status', 'Processing Method',  
      'Aroma', 'Flavor', 'Aftertaste', 'Acidity', 'Body', 'Balance',  
      'Uniformity', 'Clean Cup', 'Sweetness', 'Overall', 'Defects',  
      'Total Cup Points', 'Moisture Percentage', 'Category One Defects',  
      'Quakers', 'Color', 'Category Two Defects', 'Expiration',  
      'Certification Body', 'Certification Address', 'Certification Contact'],  
      dtype='object')
```



Missing  
Values

Unique  
Value

Null Values

Numeric  
Value  
Conversio  
n

Make New  
Features

Correctible  
Data

```
Cq.info() # we obtain cleaning data
```

```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 192 entries, 0 to 206
Data columns (total 34 columns):
#   Column                                Non-Null Count  Dtype
---  -
0   Country of Origin                     192 non-null   object
1   Farm Name                             192 non-null   object
2   Lot Number                            192 non-null   object
3   Mill                                  192 non-null   object
4   Company                               192 non-null   object
5   Altitude                             192 non-null   float64
6   Region                                192 non-null   object
7   Producer                              192 non-null   object
8   Number of Bags                        192 non-null   int64
9   Bag Weight                            192 non-null   object
10  In-Country Partner                    192 non-null   object
11  Harvest Year                          192 non-null   object
12  Grading Date                          192 non-null   object
13  Owner                                 192 non-null   object
14  Variety                               192 non-null   object
15  Processing Method                     192 non-null   object
16  Aroma                                 192 non-null   float64
17  Flavor                                192 non-null   float64
18  Aftertaste                            192 non-null   float64
19  Acidity                               192 non-null   float64
20  Body                                  192 non-null   float64
21  Balance                               192 non-null   float64
22  Uniformity                            192 non-null   float64
23  Overall                               192 non-null   float64
24  Total Cup Points                      192 non-null   float64
25  Moisture Percentage                   192 non-null   float64
26  Category One Defects                  192 non-null   int64
27  Quakers                              192 non-null   int64
28  Color                                 192 non-null   object
29  Category Two Defects                  192 non-null   int64
30  Expiration                            192 non-null   object
31  Certification Body                    192 non-null   object
32  Certification Address                 192 non-null   object
33  Certification Contact                  192 non-null   object
dtypes: float64(11), int64(4), object(19)
memory usage: 52.5+ KB
```

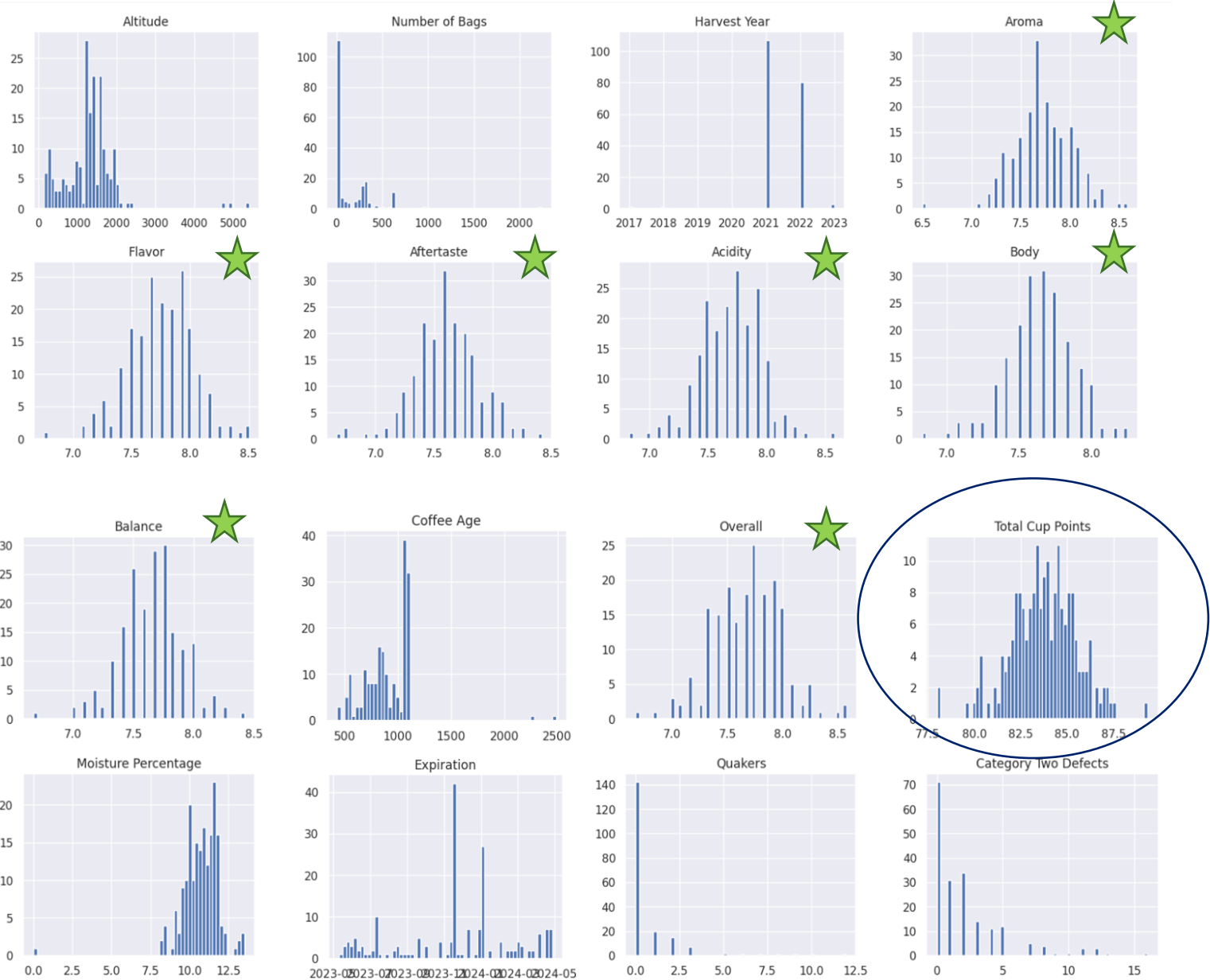
```
print(Cq.isnull().sum()) # I am sure I don't have any null
```

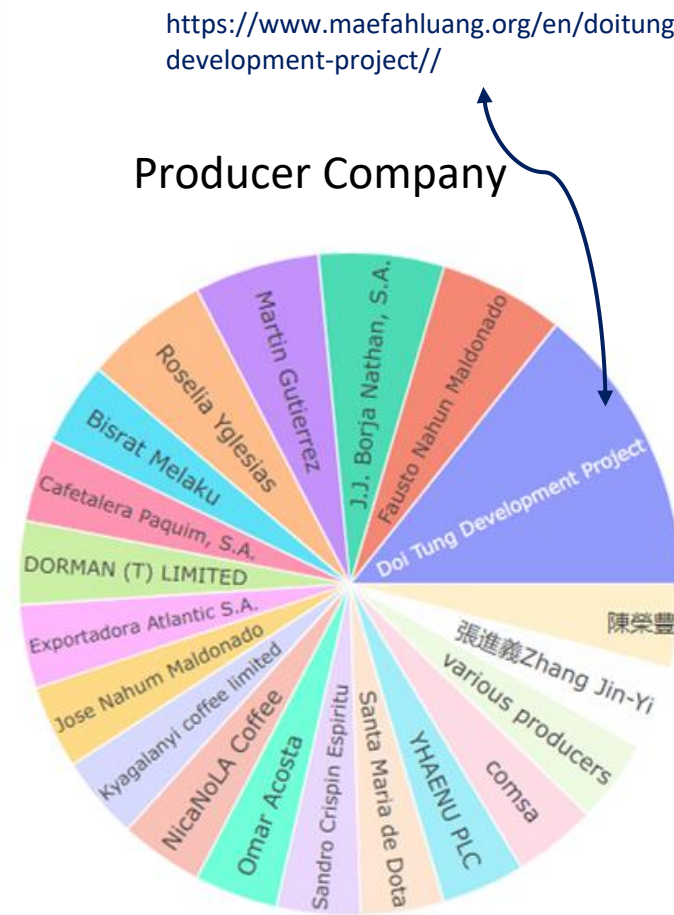
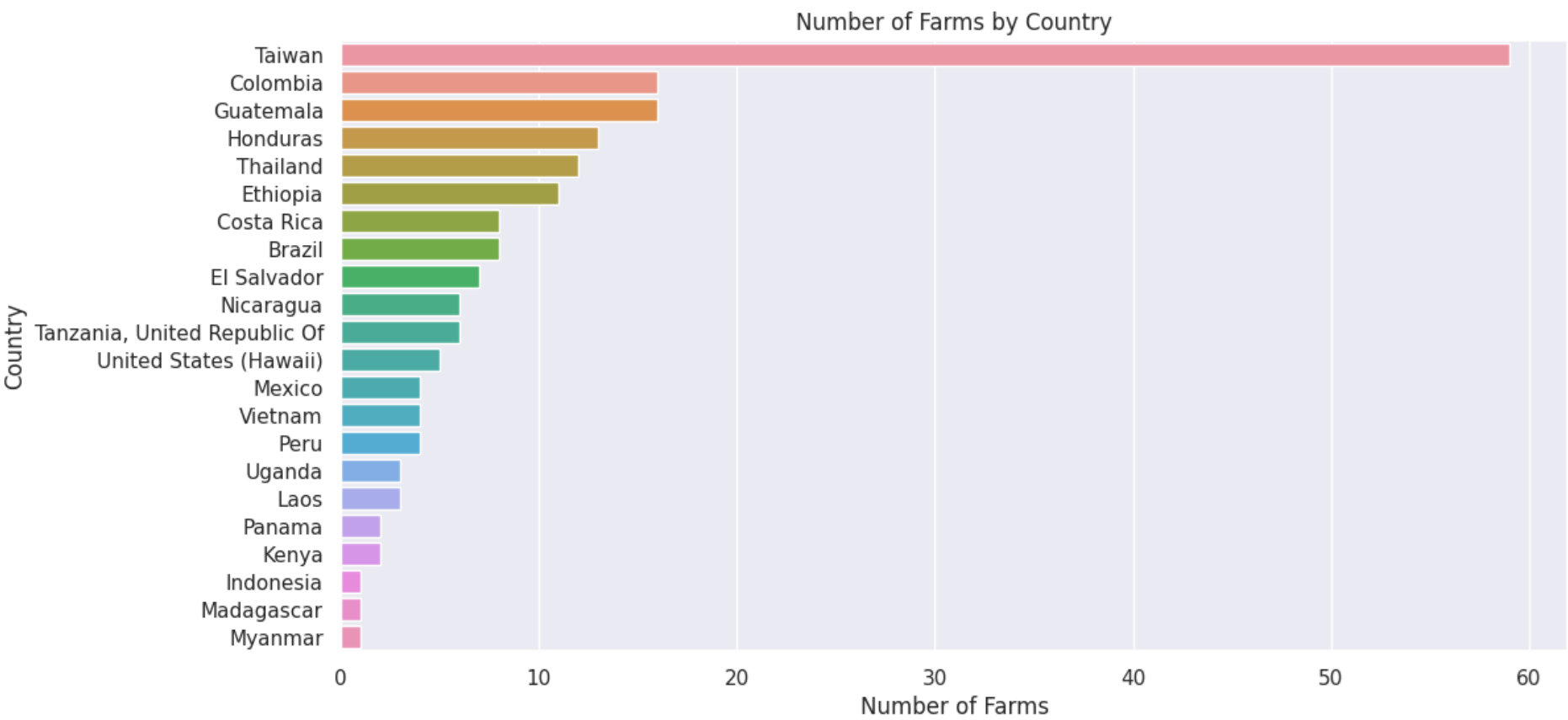
Country of Origin	0
Farm Name	0
Lot Number	0
Mill	0
Company	0
Altitude	0
Region	0
Producer	0
Number of Bags	0
Bag Weight	0
In-Country Partner	0
Harvest Year	0
Grading Date	0
Owner	0
Variety	0
Processing Method	0
Aroma	0
Flavor	0
Aftertaste	0
Acidity	0
Body	0
Balance	0
Uniformity	0
Overall	0
Total Cup Points	0
Moisture Percentage	0
Category One Defects	0
Quakers	0
Color	0
Category Two Defects	0
Expiration	0
Certification Body	0
Certification Address	0
Certification Contact	0
dtype: int64	



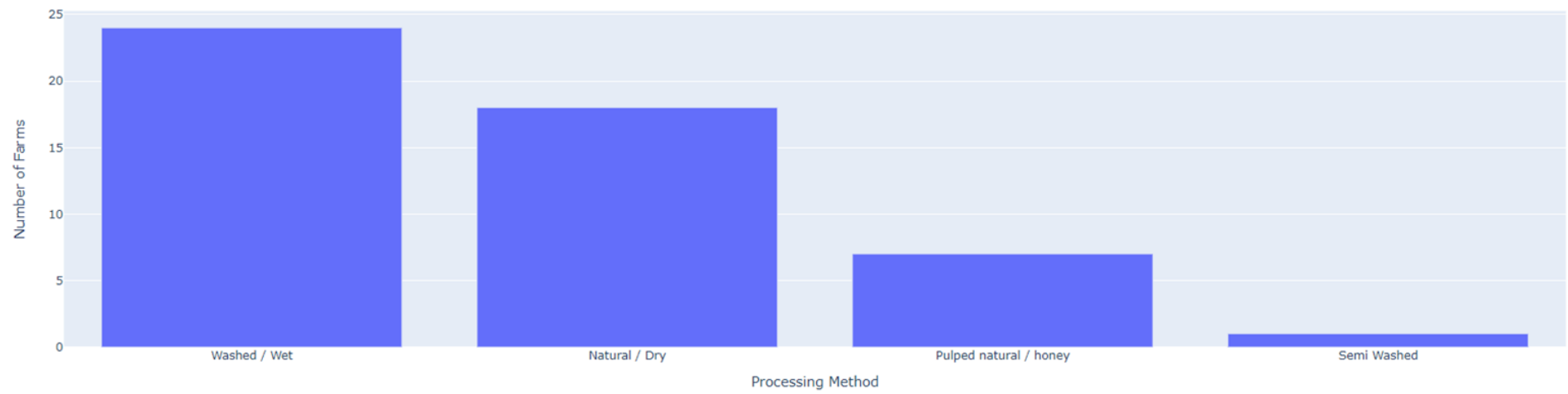
# Data Visualisation

## Numerical Variables

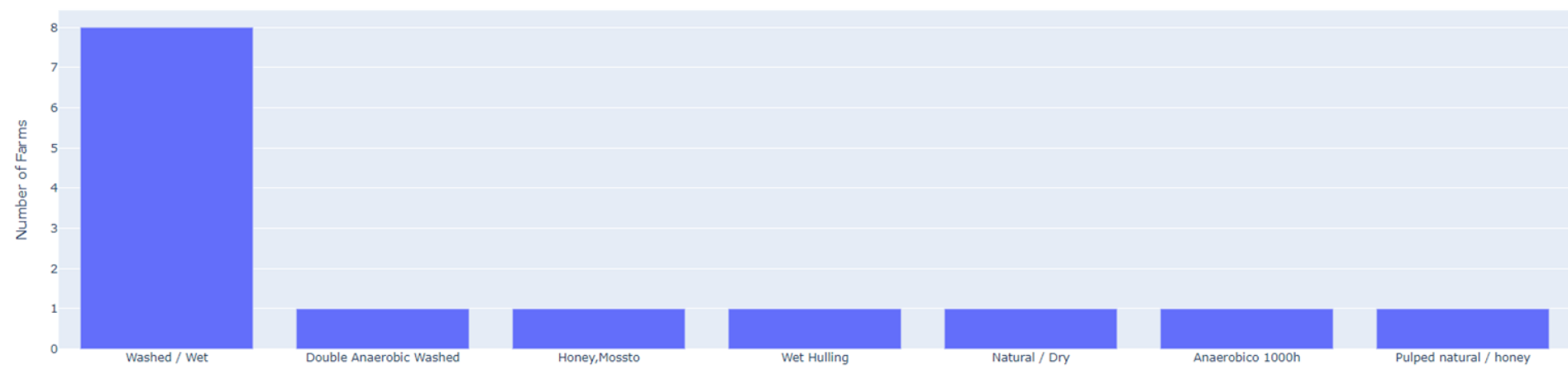




Best Processing Method for Taiwan Coffee Laboratory



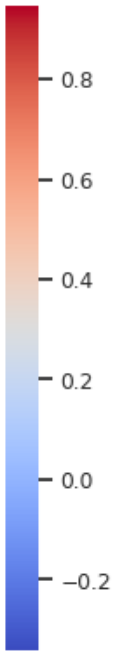
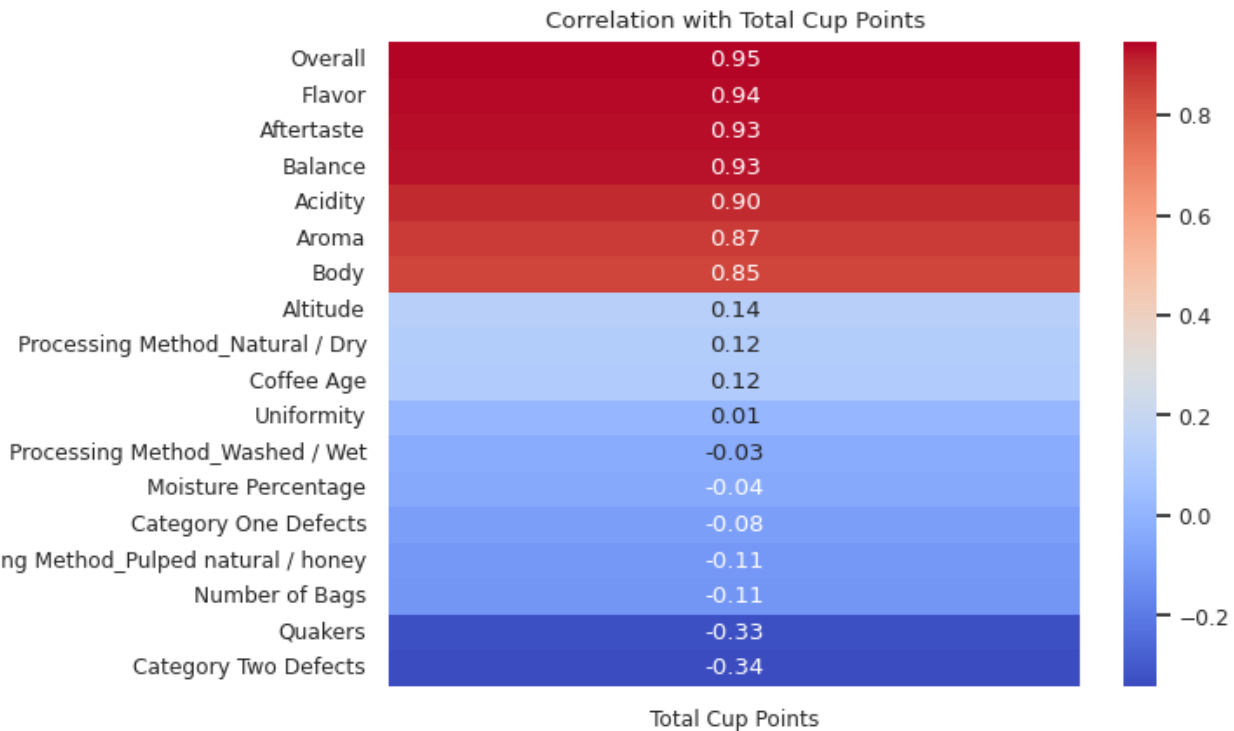
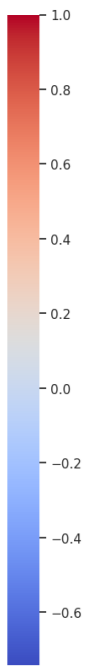
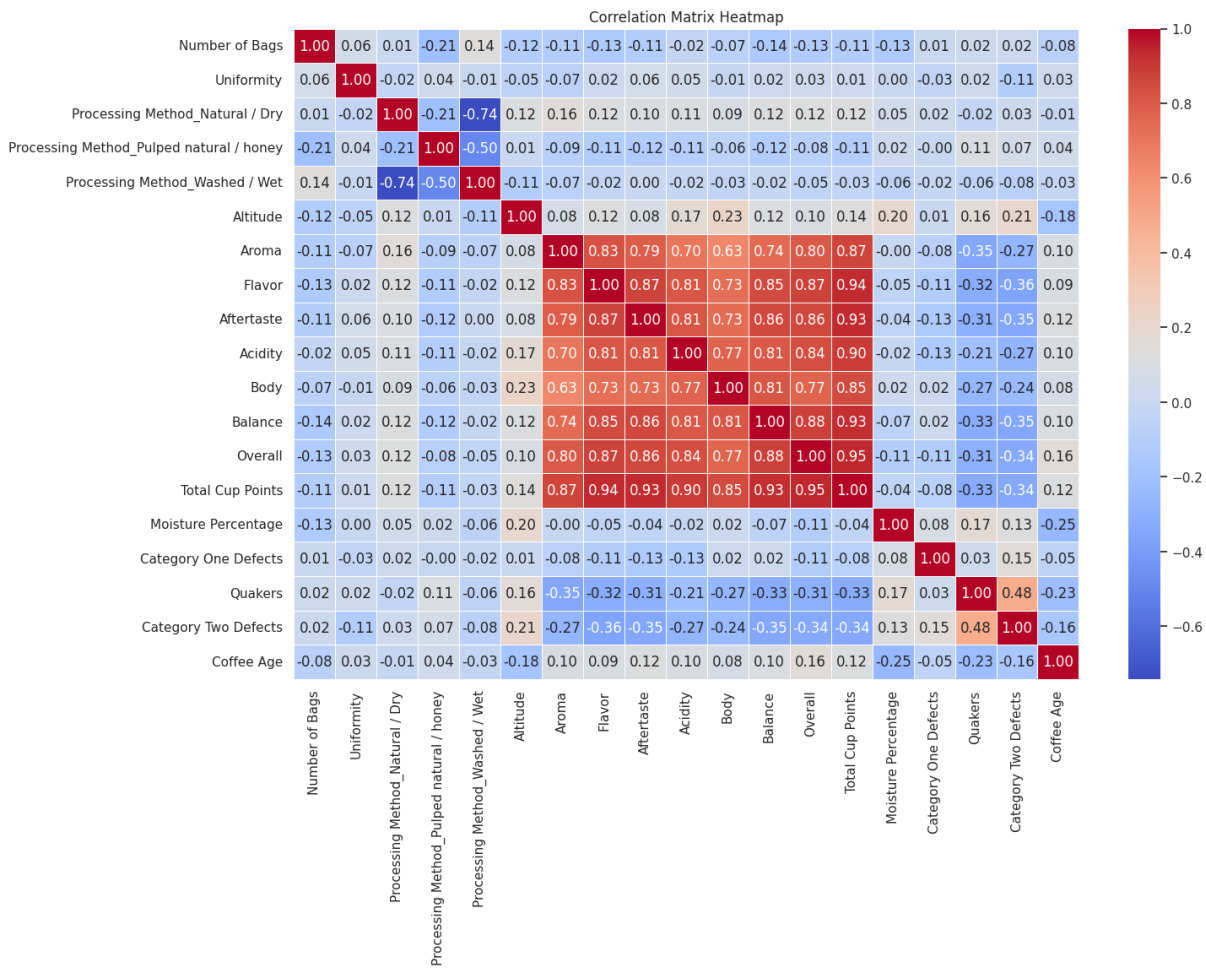
Best Processing Method for Coffe Quality Union

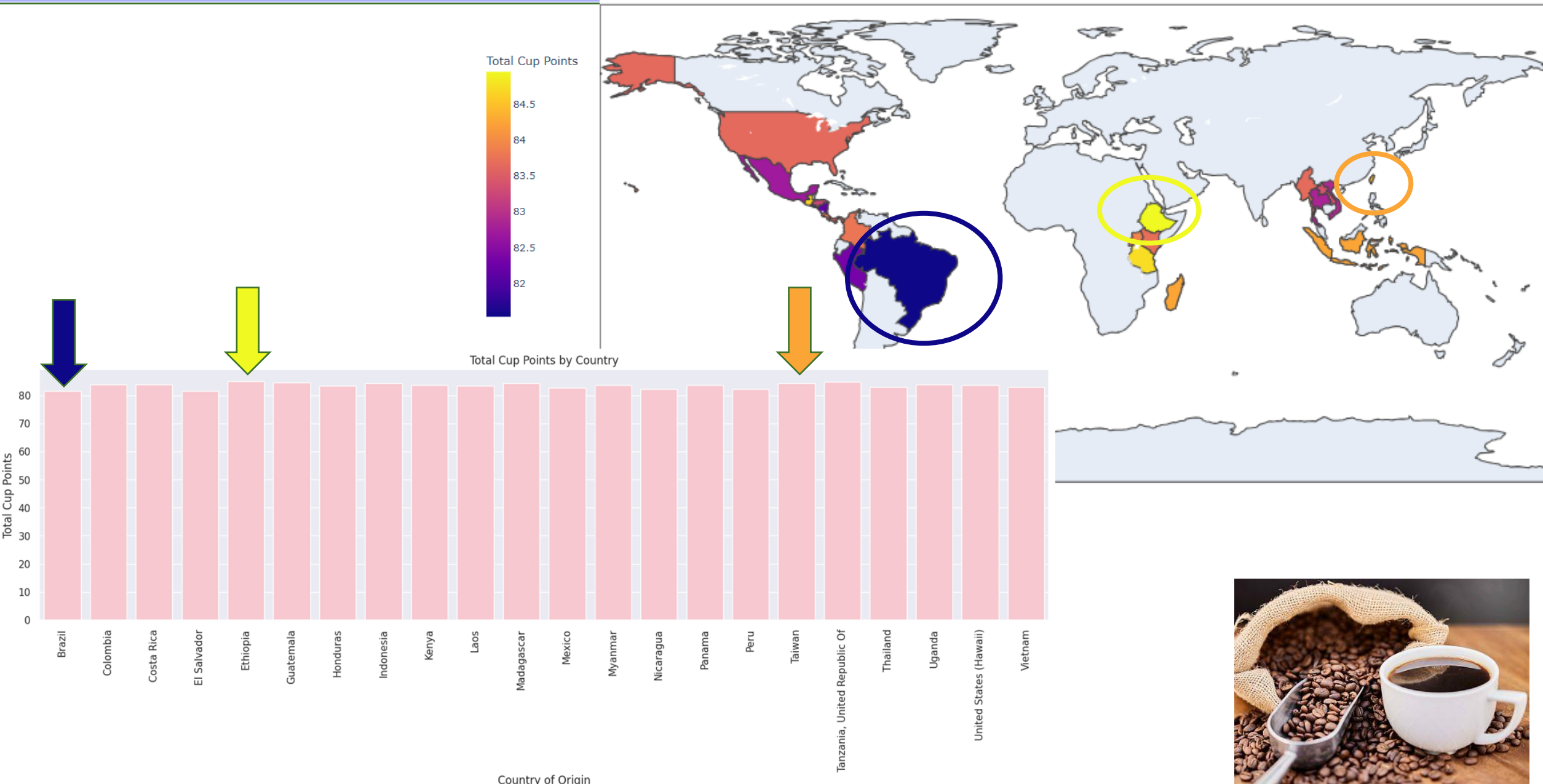




# Data Visualisation

## Numerical Analysis - Correlation Matrix Heat Map





# Data Visualisation

## Geospatial Analysis- Average Total Cup Points by Country & Altitude Relation

