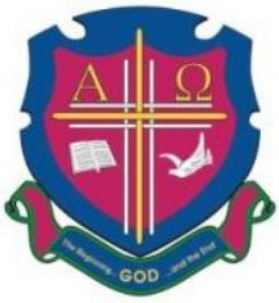

UGANDA CHRISTIAN UNIVERSITY

A Centre of Excellence in the Heart of Africa

FACULTY OF ENGINEERING DESIGN AND TECHNOLOGY

COURSE: BACHELOR OF SCIENCE IN COMPUTER SCIENCE (BSCS)

COURSE UNIT: DATA SCIENCE DSC 2103

LECTURER: DR. DAPHINE NYACHAKI BITALO (PhD GENETICS AND BIOINFORMATICS)

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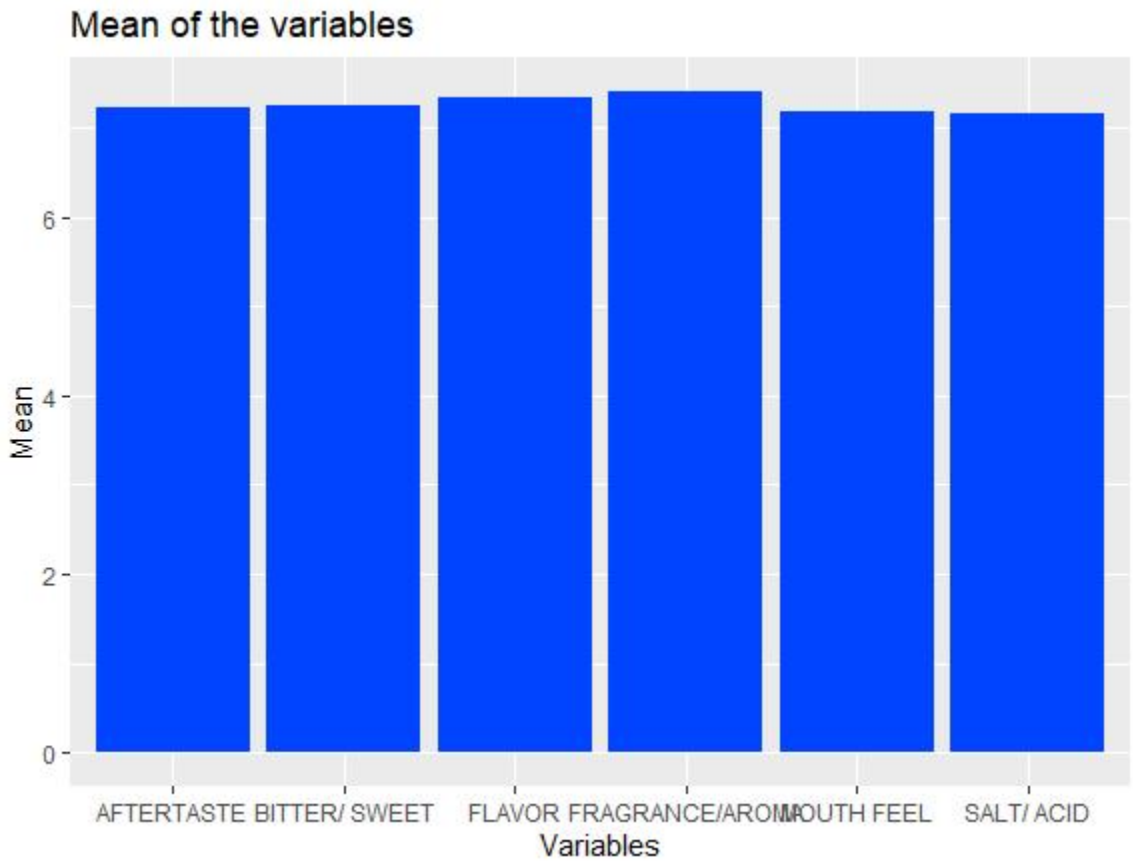
The population of the data set are the different variable listed having its samples in at Mukono , Mityana and Ibanda.

The different observations included FRAGRANCE/AROMA, FLAVOR, SALT/ ACID,BITTER/ SWEET,AFTERTASTE,MOUTH FEEL ,BALANCE,UNIFORMITY ,CLEAN CUPS and OVERALL performance which is an average of all the rest.

Mean of variable

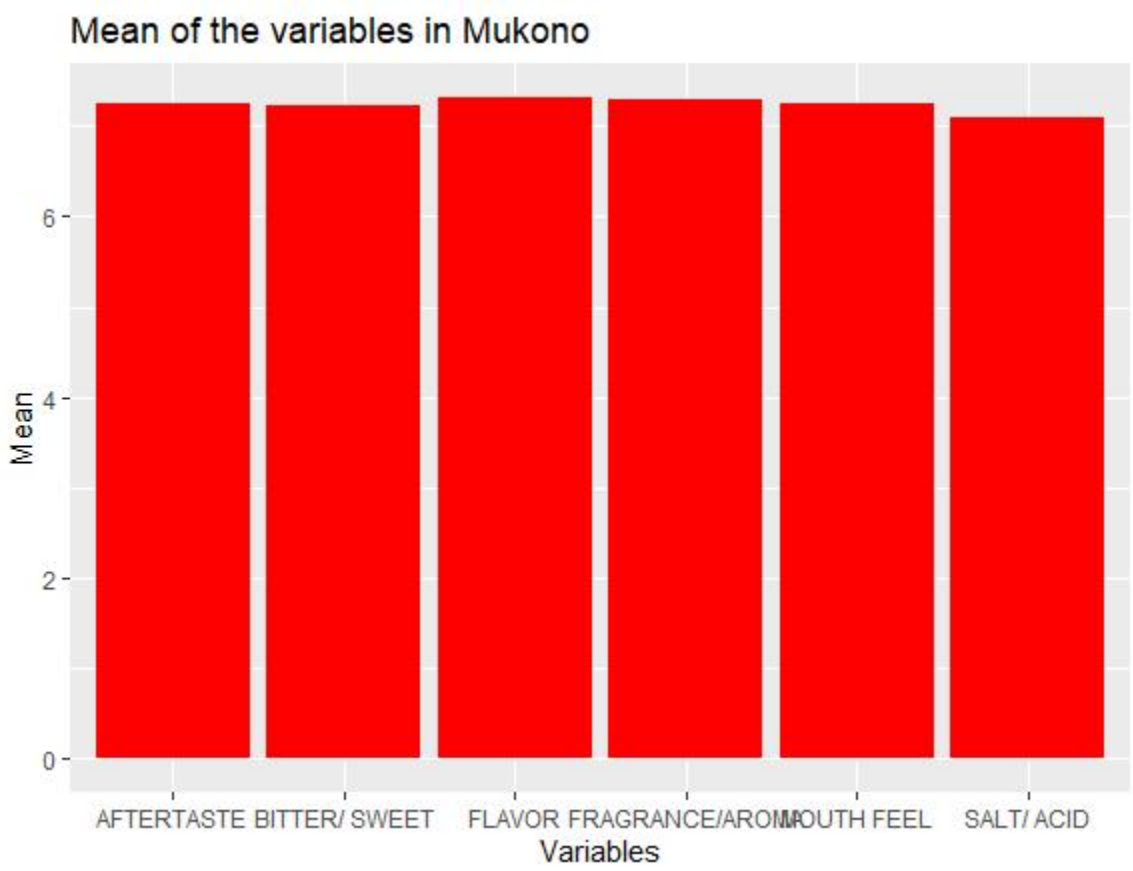
According to the bar plot shown below, the fragrance/aroma has the highest mean value thus implying that the different varieties all have a great Aroma.

The list mean appears to be Salt/acid level.which takes the tail with a 7.143 mean value



Taking mukono as a sample from the population,we observe that the Flavour takes the lion share of the mean value of 7.324 and the salt/acid trails with a value 7.100.as shown

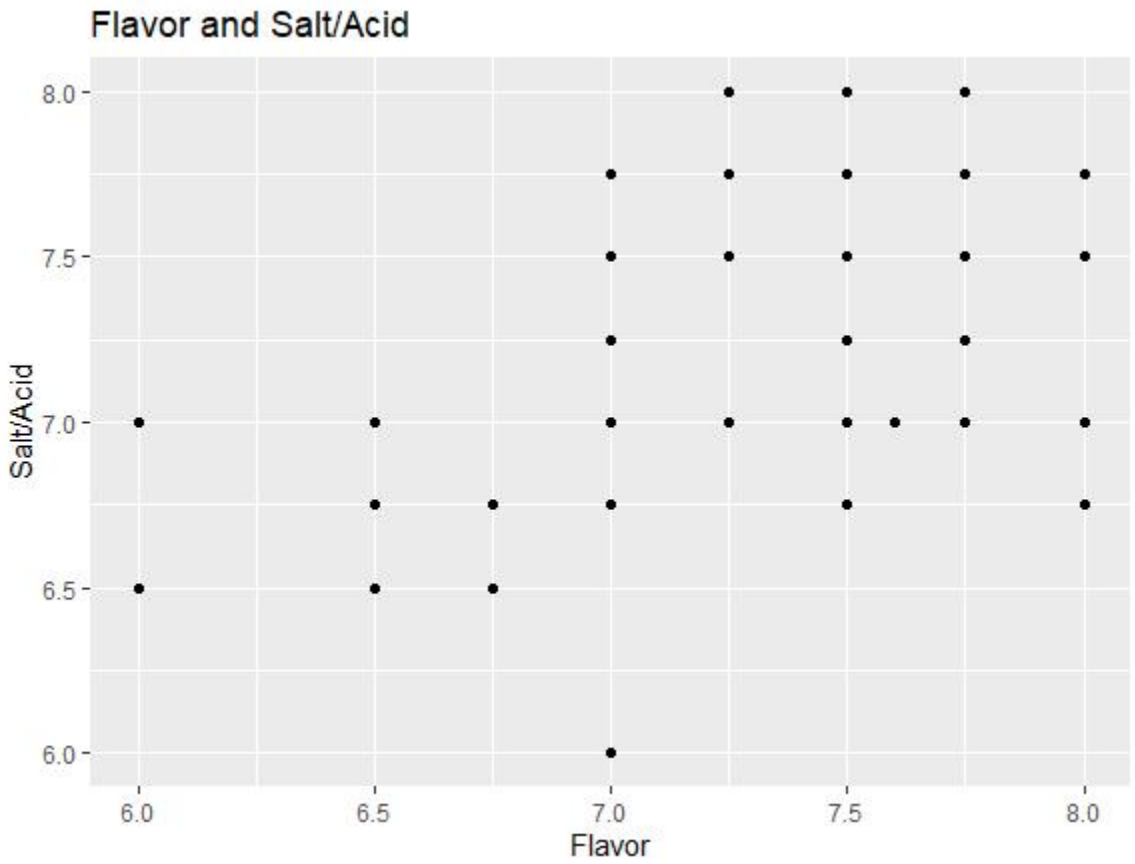
below.

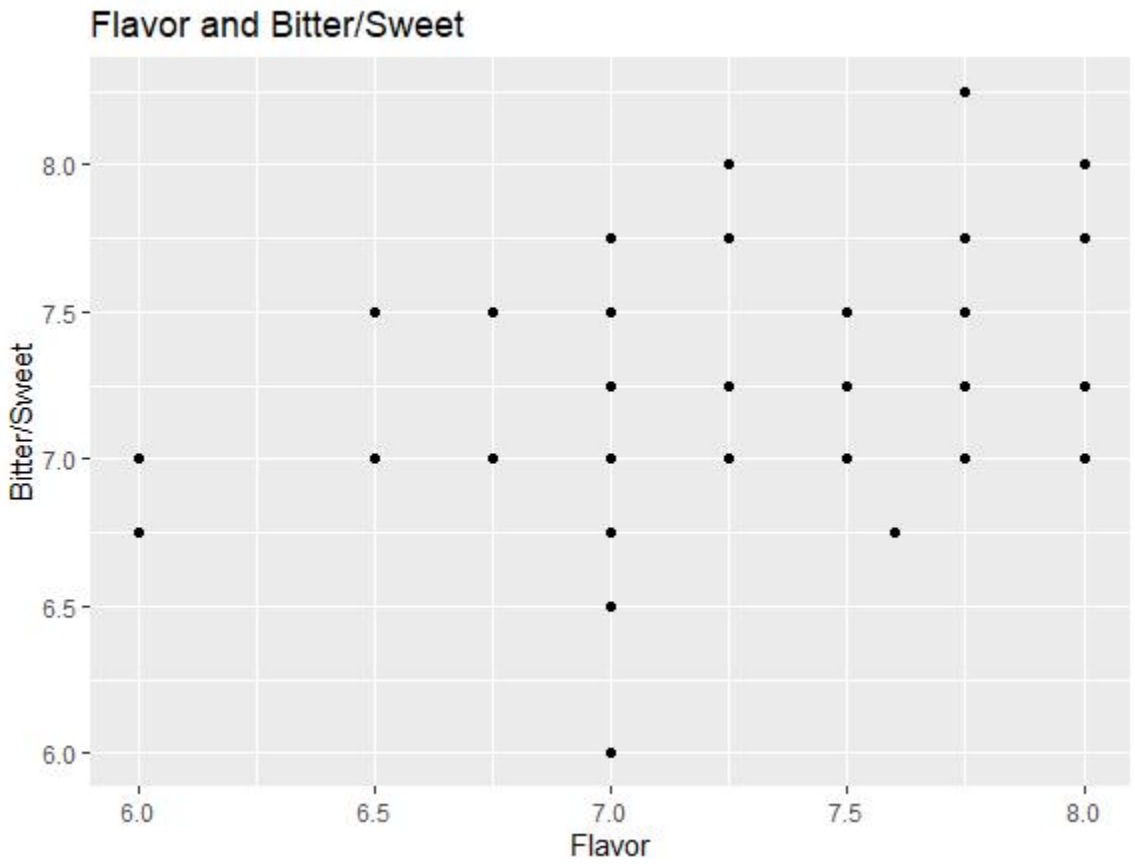


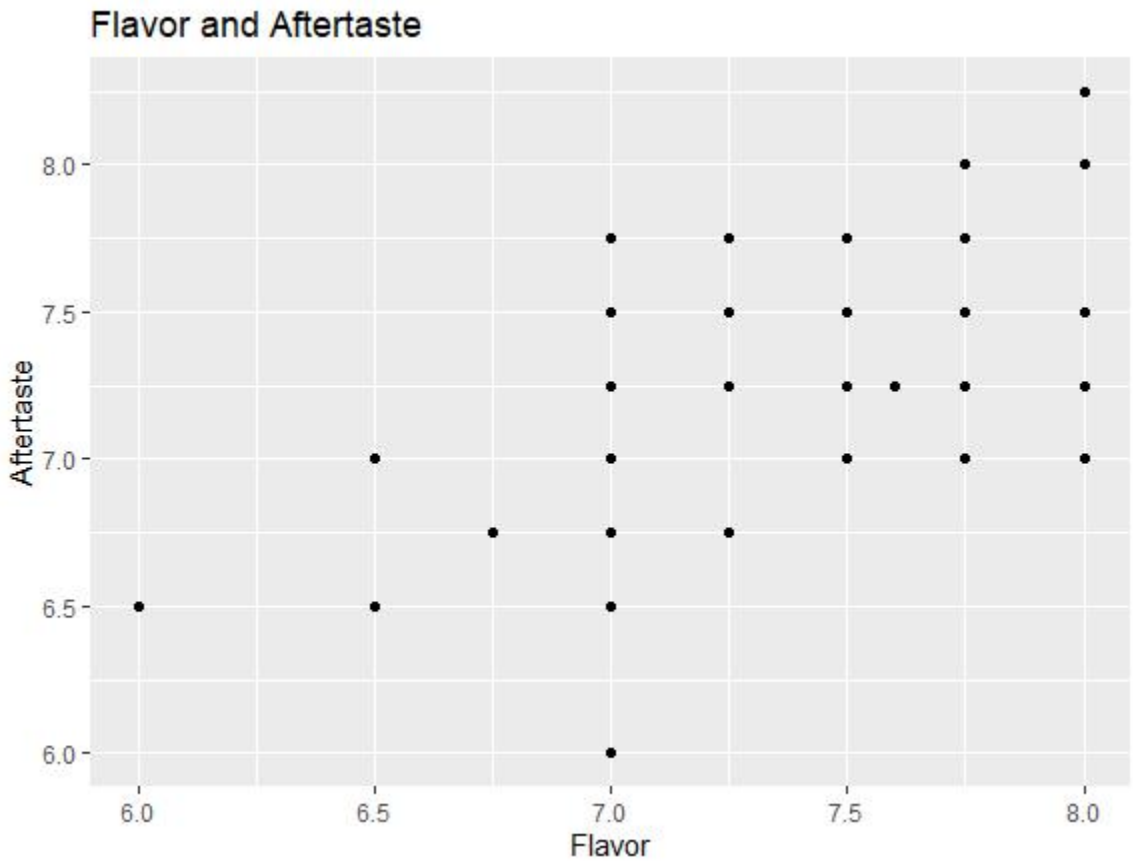
Conclusion.

The different variaties vary depending on the region rather than considering the general observations.

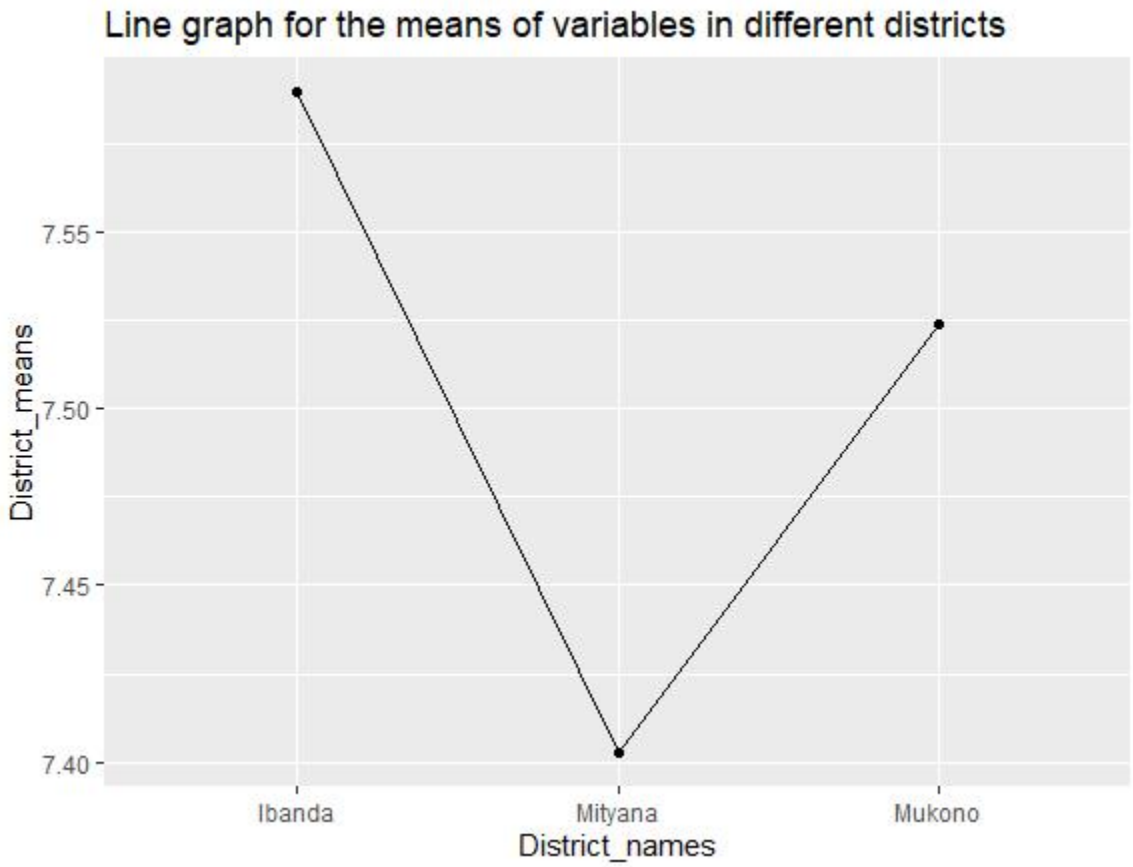
Considering flavour plot against salt/acid,bitter/sweet and after taste as the three samples considered as shown below,we see that the flavour has a postive correlation in relation to most of the the other variables.


Flavor and Salt/Acid
Salt/Acid
8.0
7.5
7.0
6.5
6.0
6.0
6.5
7.0
7.5
8.0
Flavor


Flavor and Bitter/Sweet
Bitter/Sweet
8.0
7.5
7.0
6.5
6.0
6.0
6.5
7.0
7.5
8.0
Flavor

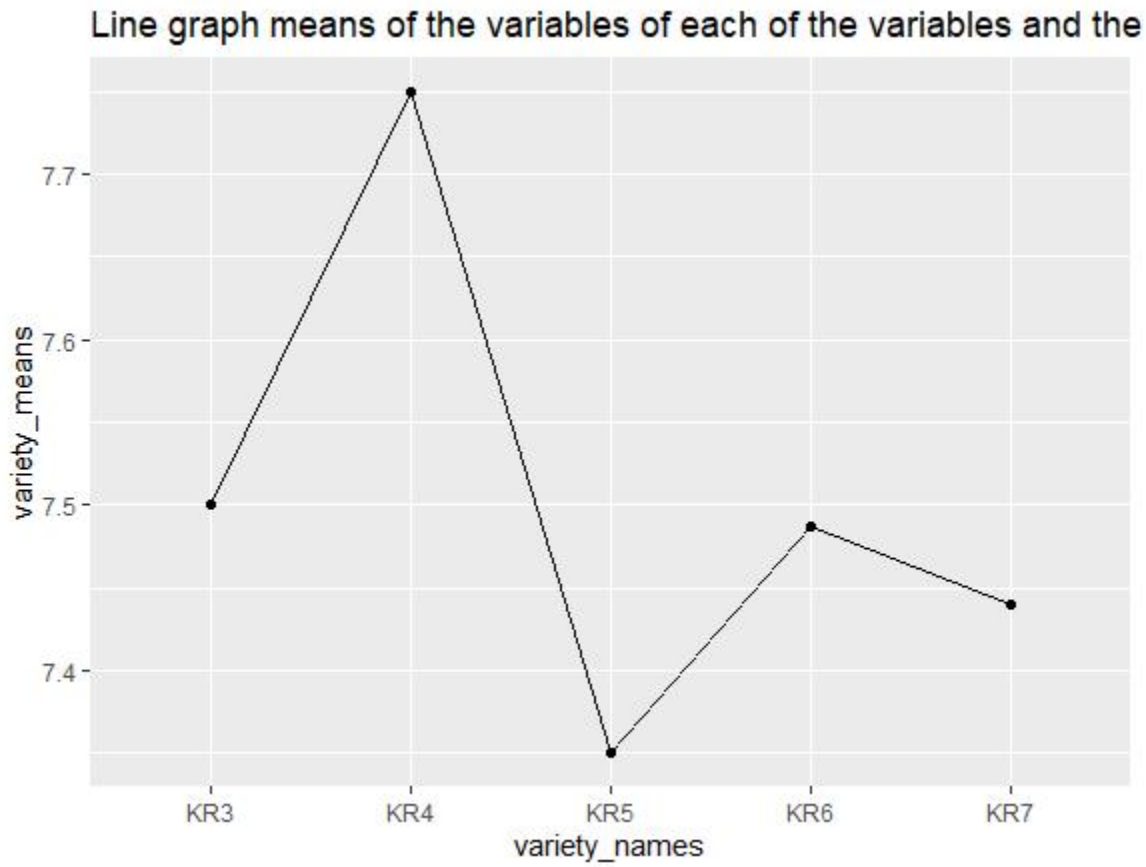


Using the means generated using the overall data,its is found that ibanda has the highest overall performance in the different varieties ,mukono comes in second place and finally Mityana district.

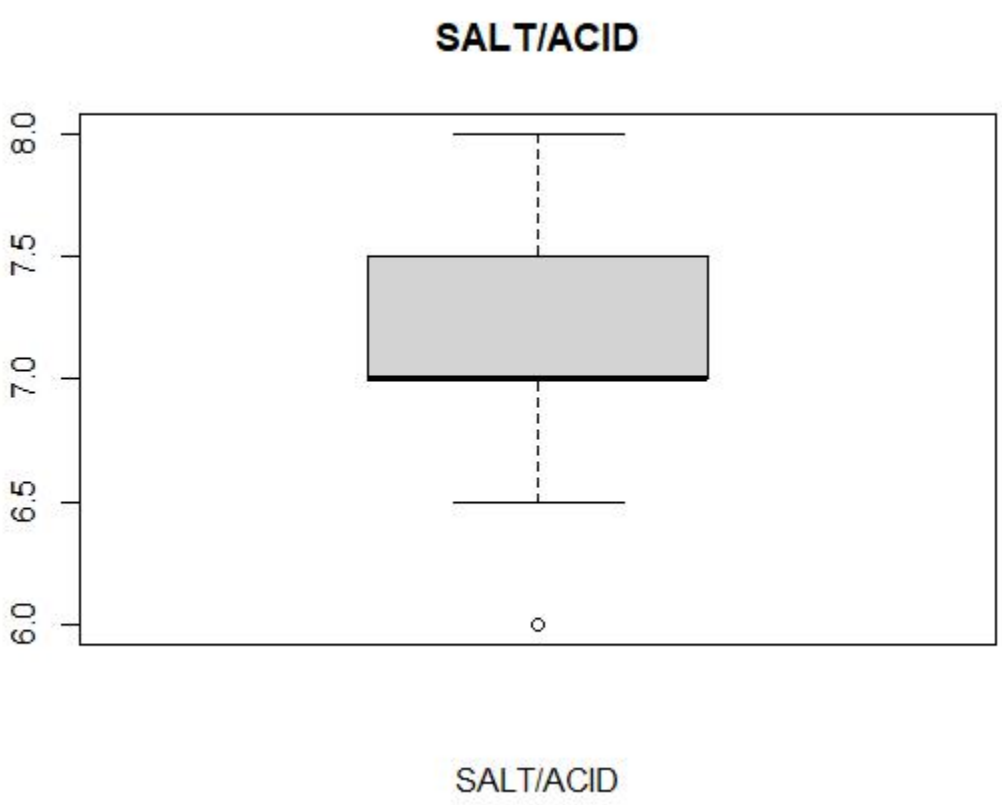


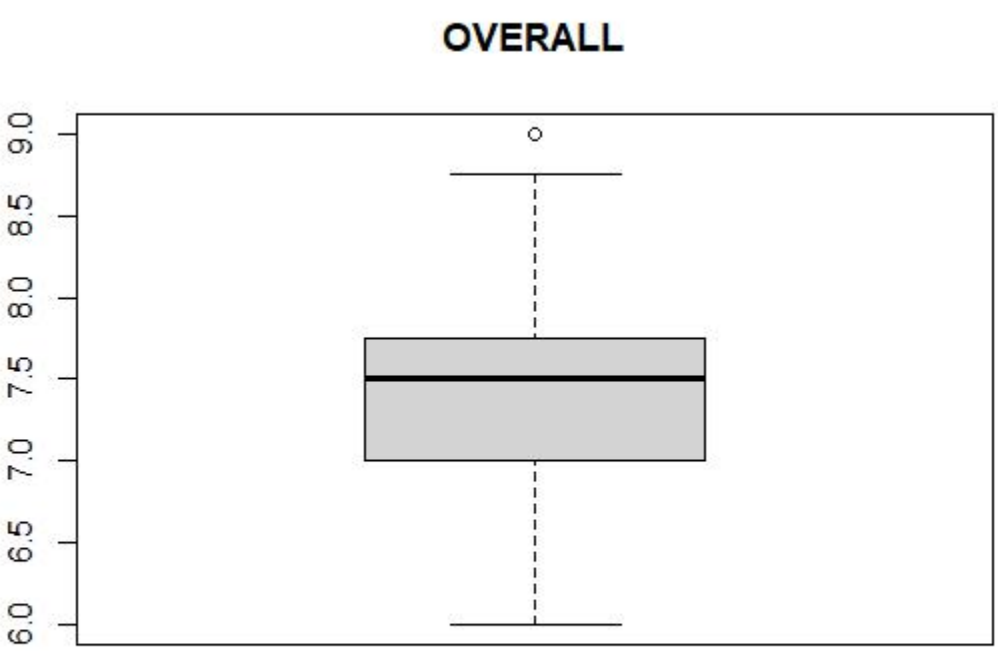
We generated the means of each of the varieties according to their different overall performances as shown below.we see that the k4 variety has the greatest resistance to coffee wilt disease while k5 variety has the lowest resistance.

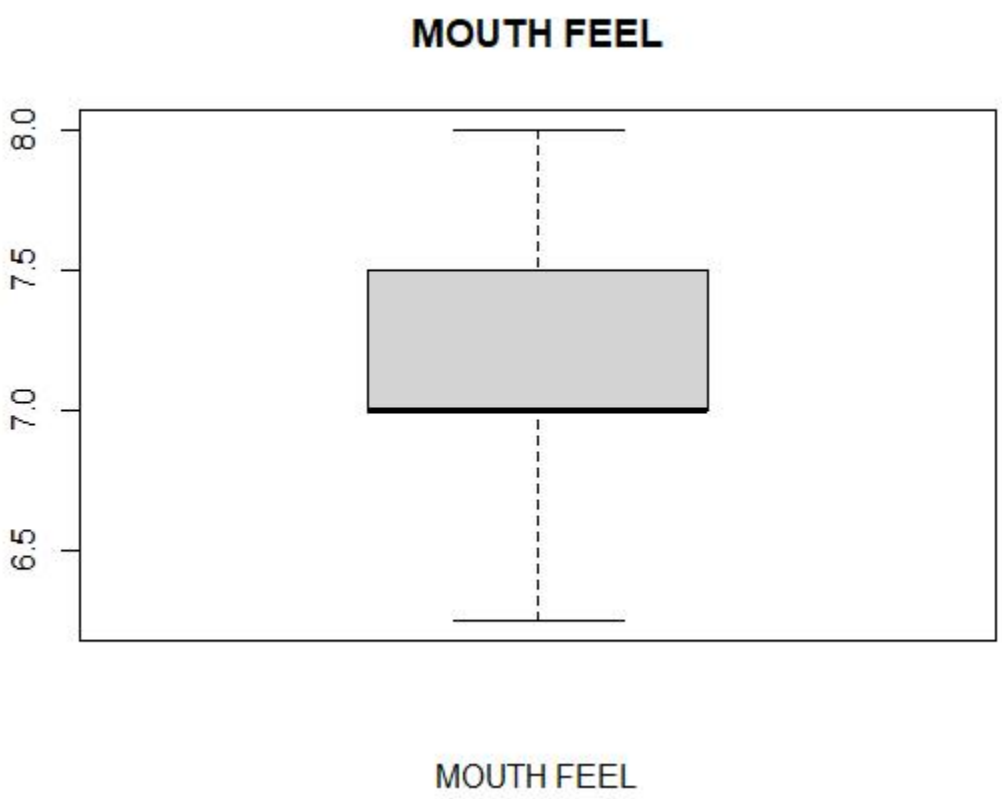
But also the different varieties perform differently depending on the the region that they have been grown.

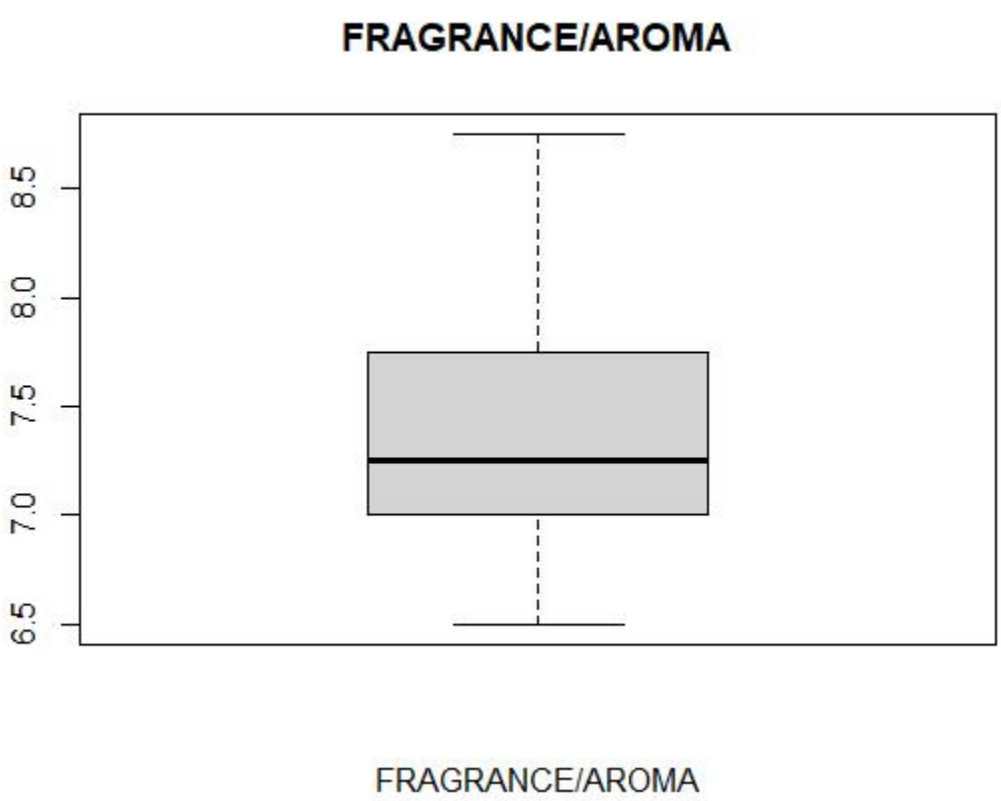


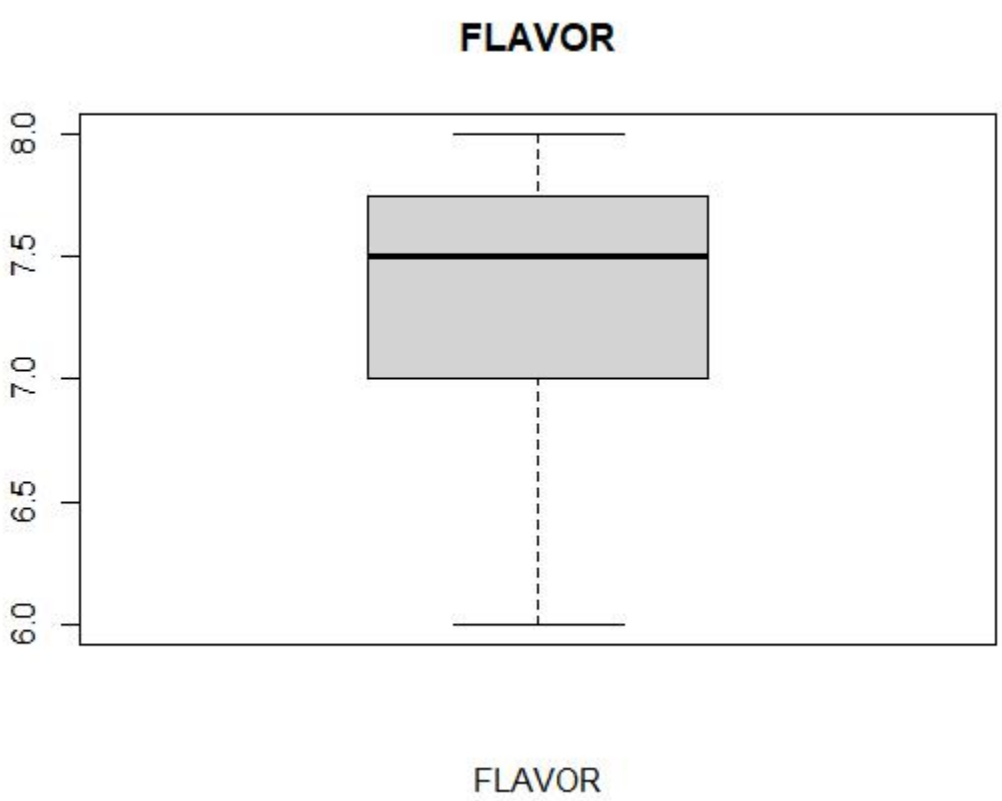
Central tendencies for each variable using box plots.

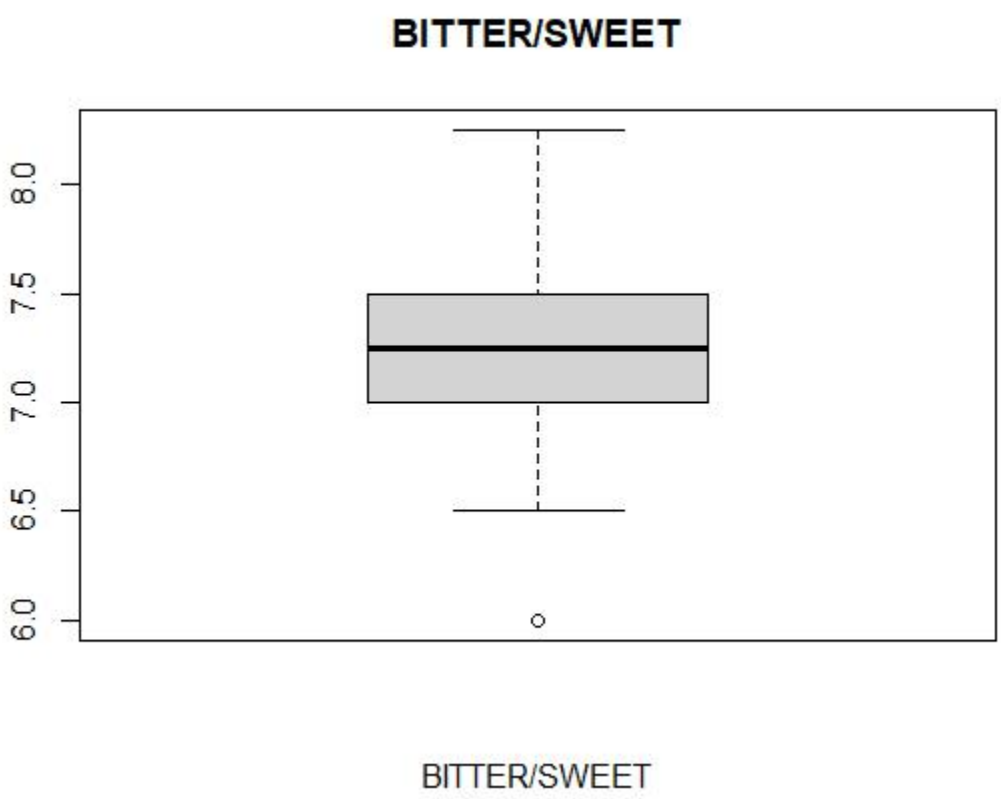

SALT/ACID
8.0
7.5
7.0
6.5
6.0
SALT/ACID

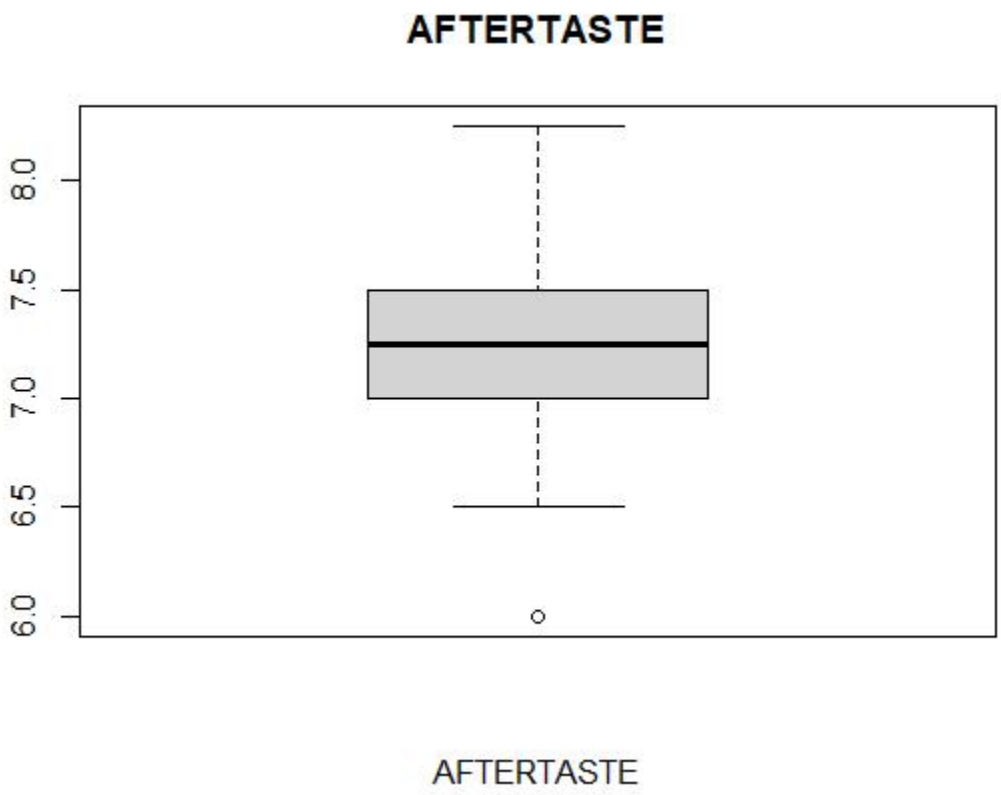

OVERALL
9.0
8.5
8.0
7.5
7.0
6.5
6.0
OVERALL


MOUTH FEEL
8.0
7.5
7.0
6.5
MOUTH FEEL

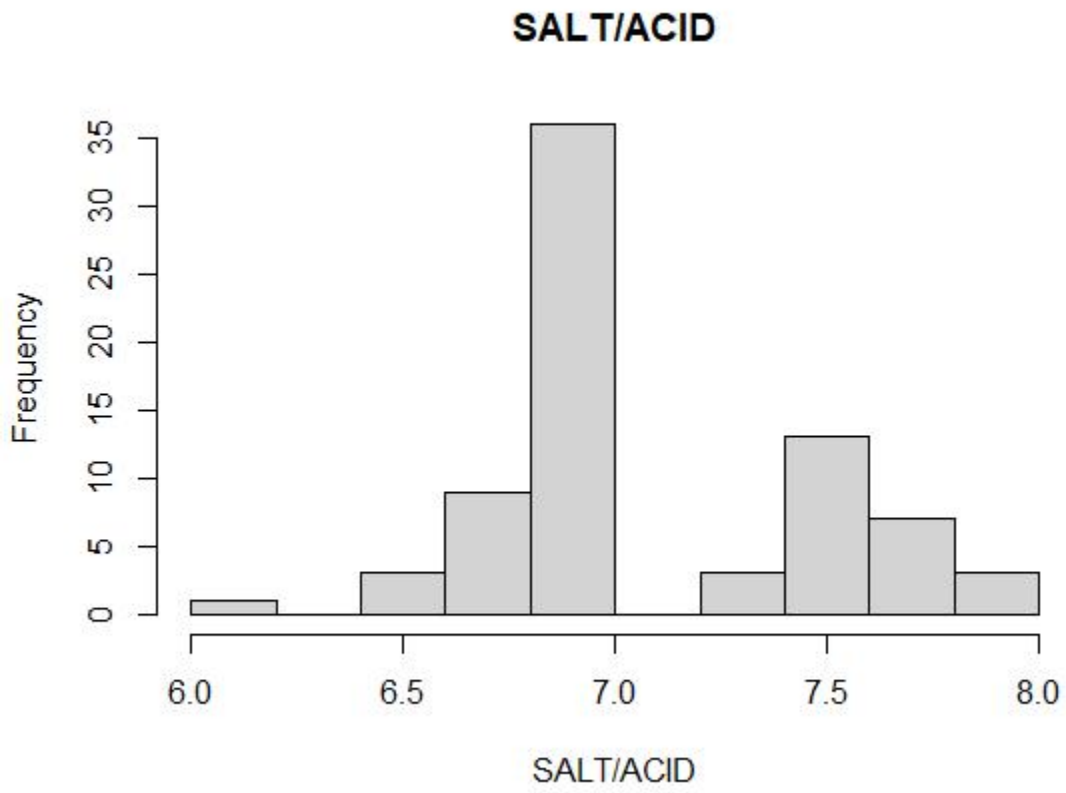

FRAGRANCE/AROMA
8.5
8.0
7.5
7.0
6.5
FRAGRANCE/AROMA


FLAVOR
8.0
7.5
7.0
6.5
6.0
FLAVOR

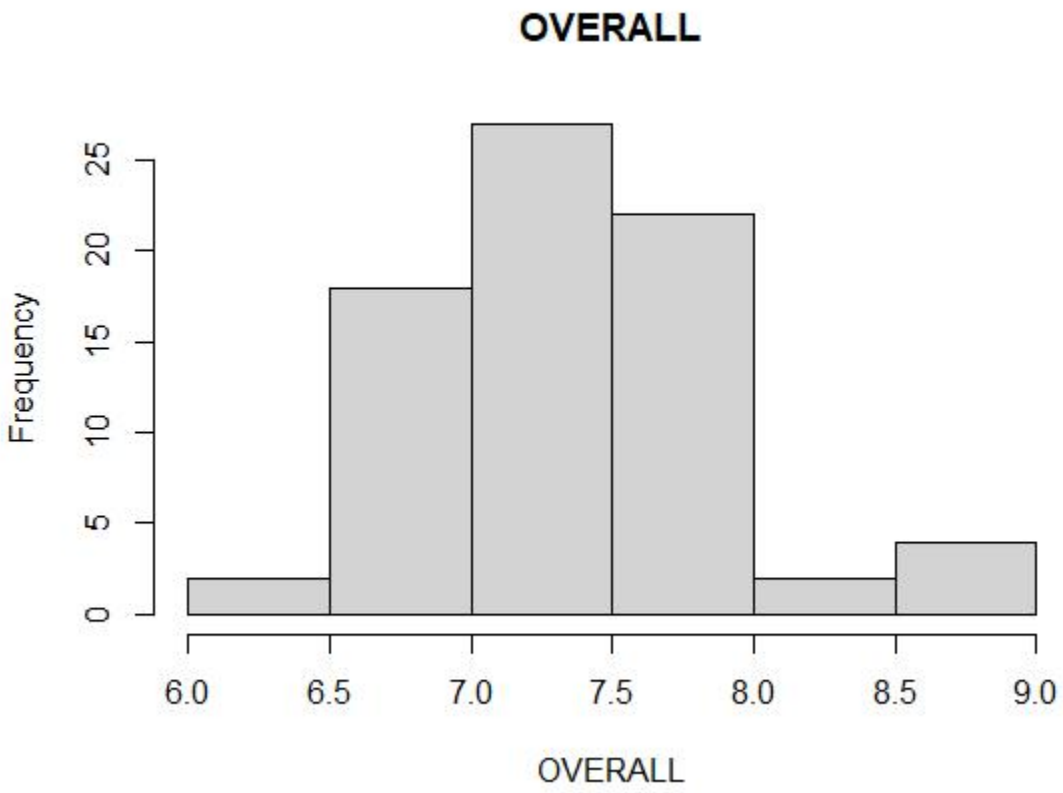

BITTER/SWEET
8.0
7.5
7.0
6.5
6.0
BITTER/SWEET



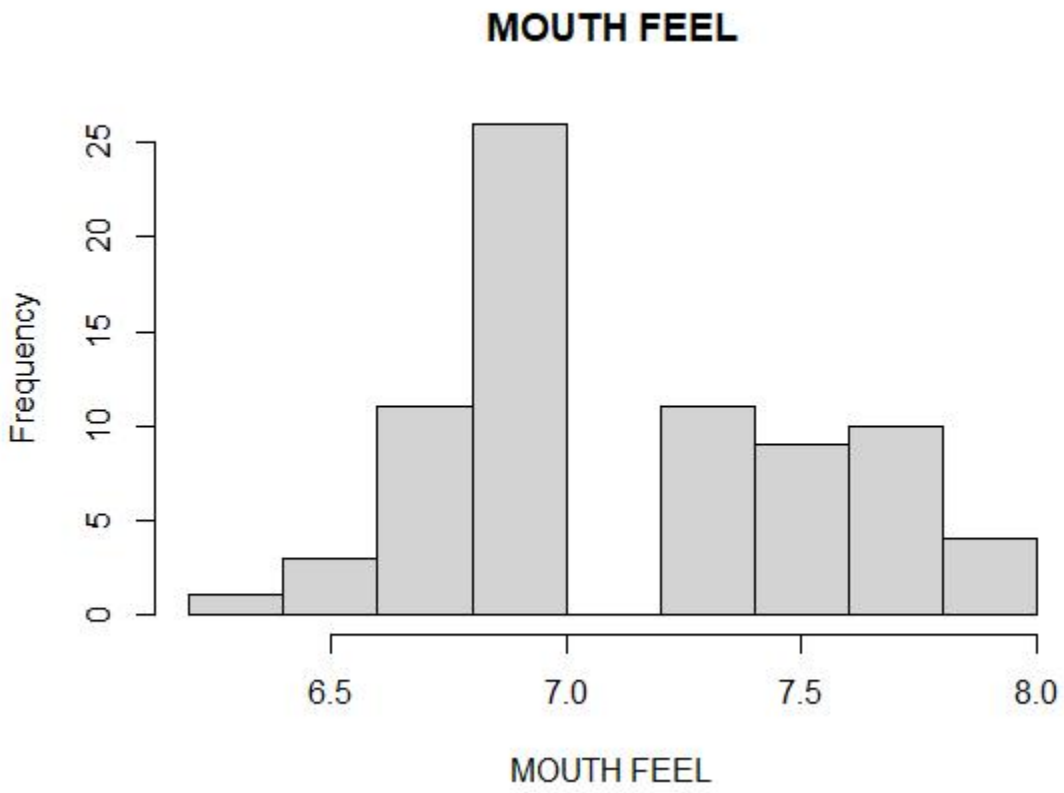
We used the histogram to determine how the different variables are skewed.



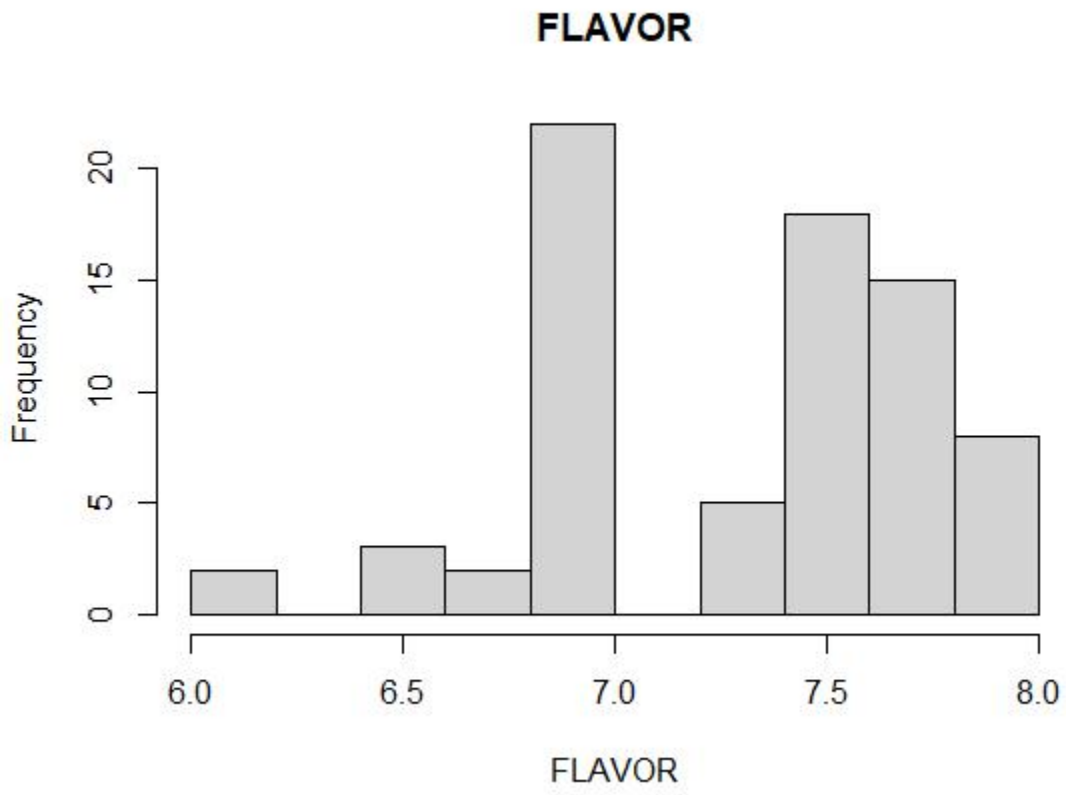
The salt/ acid is normally distributed.



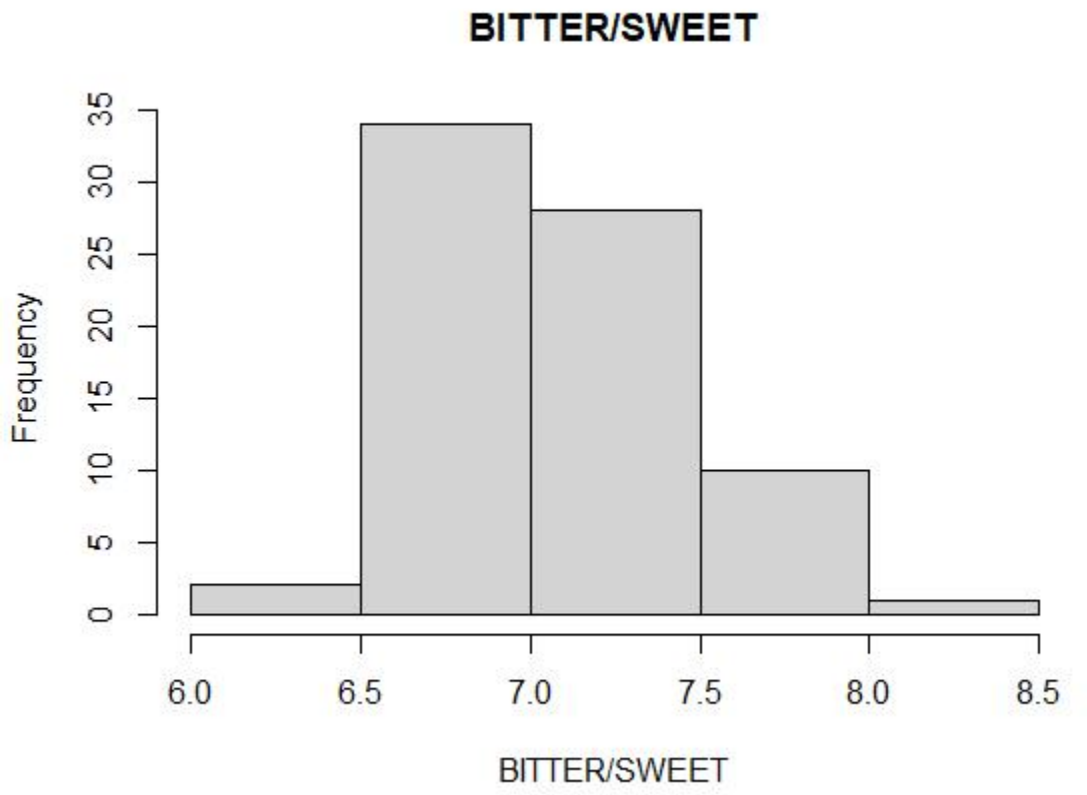
Overall performance of the varieties are normally distributed.



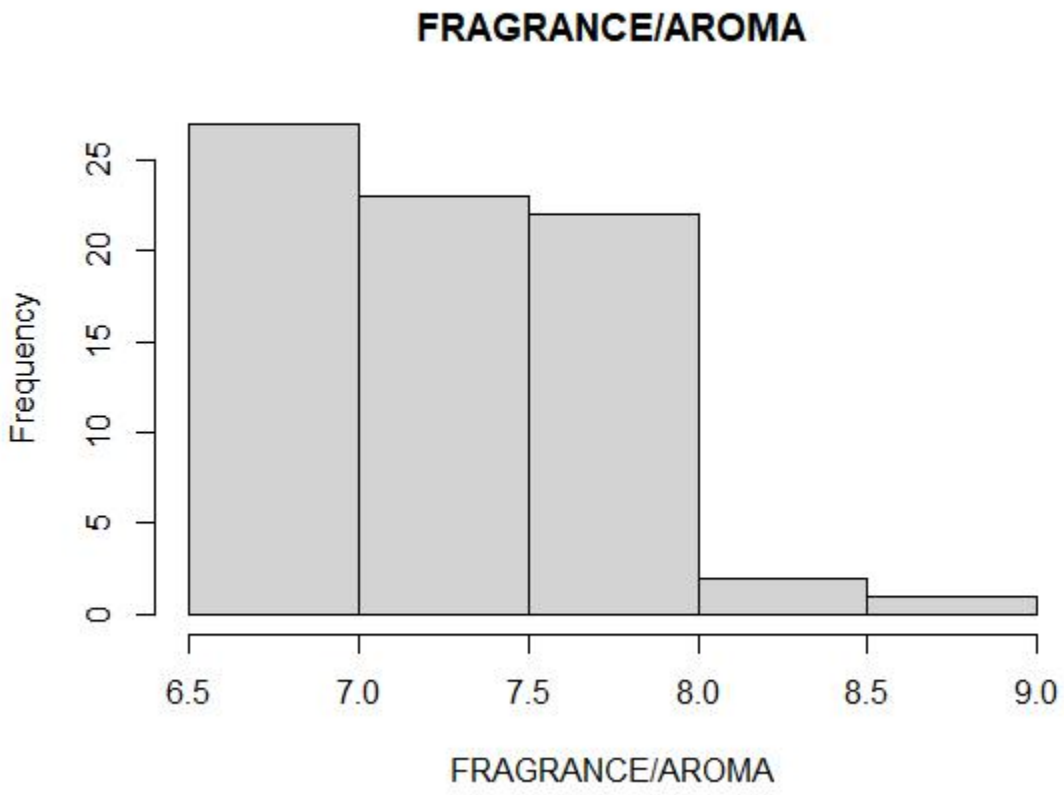
Mouthfeel performance of the varieties are skewed to the right.



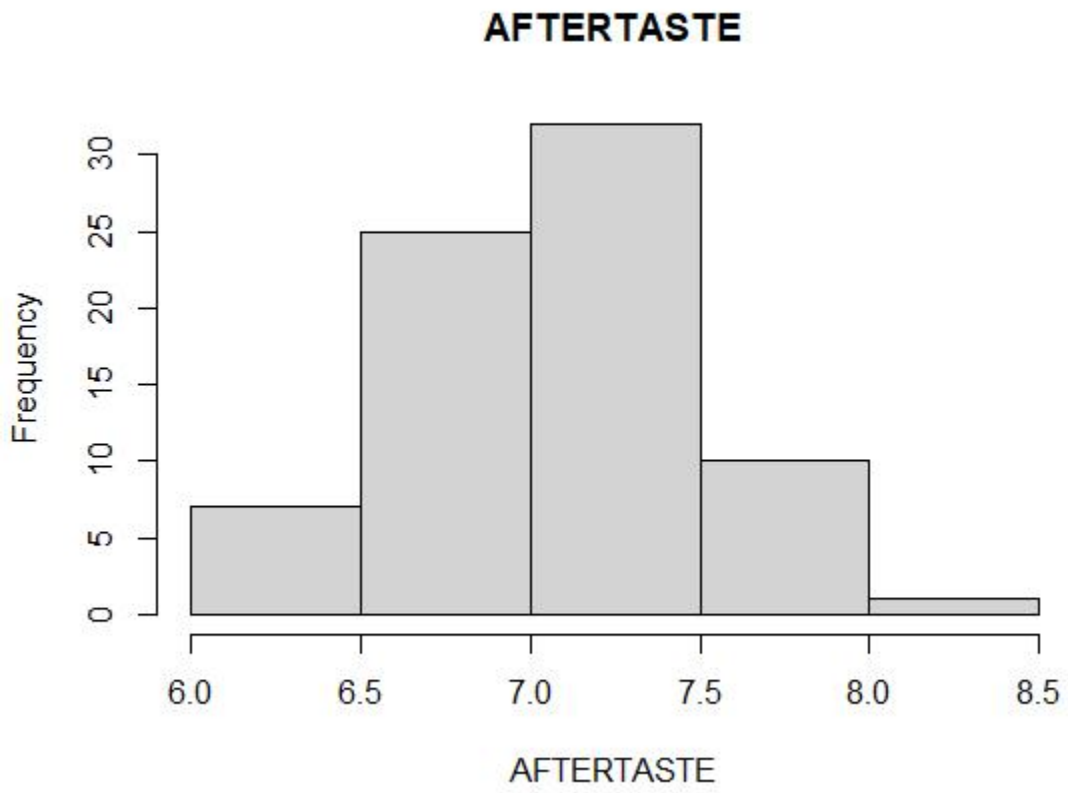
Flavour performance of the varieties are skewed to the left.



Bitter/sweet performance of the varieties are skewed to the right.



Fragrance/Aroma performance of the varieties are skewed to the right.



After Taste is normally distributed.