Problem n.2

The file `beers.txt` contains the data for 125 beers from different breweries. The variable *alcohol* contains the percentage of alcohol while the variable *ibu* the International Bitterness Unit measure for beers.

a) After scaling the variables, perform a cluster analysis of the beers by using a hierarchical clustering method (Euclidean distance) with single linkage and complete linkage. Report the plot of the dendrogram.

b) Choose the linkage that you deem appropriate, explaining why. Report the number of clusters you consider appropriate to represent the data.

c) Report the centroids of the clusters, their size and the cophenetic coefficient.

Upload your results here:
https://forms.office.com/Pages/ResponsePage.aspx?id=K3EXCvNtXUKAjjCd8ope6-9AS0GWf2lHjvGX24Hiq
FVUNk9HWEJXMklLUzJEQOFJRTRCUjBNVDUxWC4u