

COSC6323 - Exercise 5

March 2021

Instructions

REPORT CONTENT:

1. Problem solution
2. Commented output of the hypothesis test
3. Your summary for the described problems

SUBMIT:

1. FirstName_LastName.rmd
2. FirstName_LastName.pdf

1 Task 1

A study was done to compare soil mapping units on the basis of their lateral variability's for a single property, silt content. The study area consisted of a sequence of eight contiguous sites extending over the crest and flank of a low rise in a valley plain underlain by marl near Albudeite in the province of Murcia, Spain. The geomorphological sites were the primary mapping units adopted and were small areas of ground surface of uniform shape. Following the delimitation of the sites, soil samples were obtained in each site at 11 random points within a 10mx10m area centered on the midpoint of the site. All samples were taken from the same depth. The soil property considered was the silt content, expressed as percentages of the total silt, clay and, sand content. The data are given in SiltDataset.csv (attached to the BB and also available at the GitHub).

Is there a difference in silt content among the soils from different sites? Visualize the data using boxplot.

Plan:

1. Upload data
2. Visualise data (box plots)
3. Perform ANOVA test
4. Write a conclusion