Gene expression data obtained from a microarray experiment is provided. The first column is the name of the genes. The second column is for the log2-fold change in expression, and the last column is for the p-value obtained from the statistical test.

Data files:

vData_1.csv: Use this data file if the last digit of your roll number is 0 to 4.

vData_2.csv: Use this data file if the last digit of your roll number is 5 to 9.

Use ggplot2 in R to create a volcano plot for this data set.

You must show the reference lines or guidelines for biologically and statistically significant fold change in expression.

You should submit two files through the Teams assignment:

1) A R script file. Name of the file: your_roll_number_**lab1**

2) A report in MS word. Name of the file: your_roll_number_**lab1**

Report:

Show the following:

a) Your name

b) Your Roll number

c) Name of the datafile used

d) The volcano plot

Important: The axes of any plot must always be correctly labeled.