Yash Maniya
B20CS033

Data Visualization
Lab 7: Interactive Visualization using R-Shiny

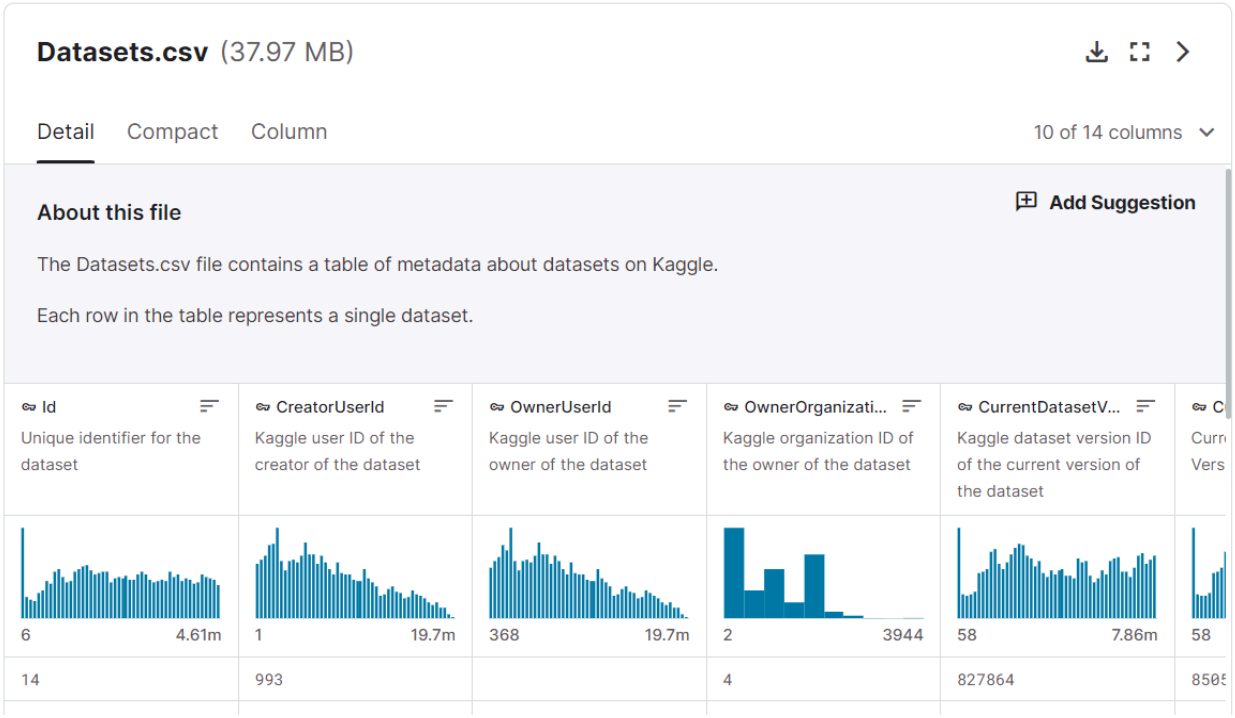
Problem Statement :

Now we will learn interactive visualization. The series of software that we will try to learn is (i) R-Shiny, (ii) Python Dash (based on plotly) and (iii) D3JS/Plotly.js
Most important part of interactive visualization is to provide user the input options from where user will change the values and see the different output of the visualization. These inputs may be parameters of the visualization (e.g. number of bin for histogram) or filter values of the data (e.g. population greater than x).

Today we will learn and setup R-Shiny by following the tutorial available https://shiny.rstudio.com/tutorial/written-tutorial/lesson1/

First recreate whatever the tutorial is asking for. Then recreate similar graphs for any file(s) available in the following data set: https://www.kaggle.com/datasets/kaggle/meta-kaggle

Data File chosen : `Datasets.csv` and `WineQT.csv` from previous labs

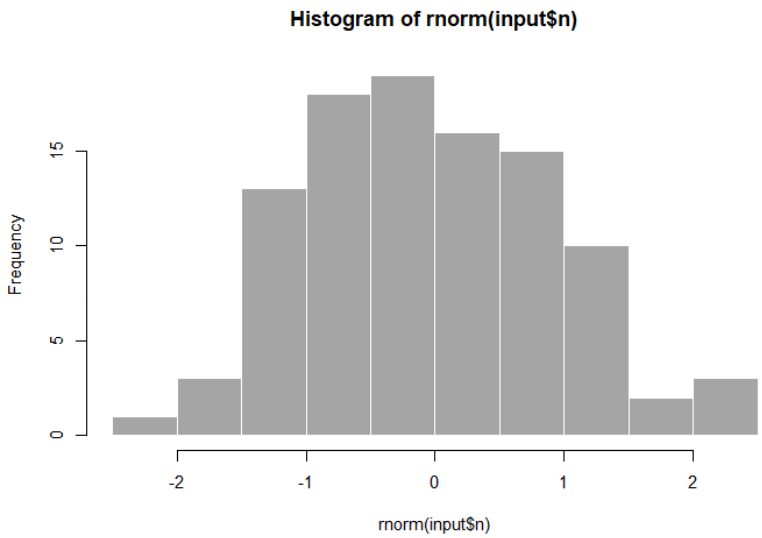


Test.R : (Histogram with variable No. of Obs.)

My First Shiny App

Number of observations:

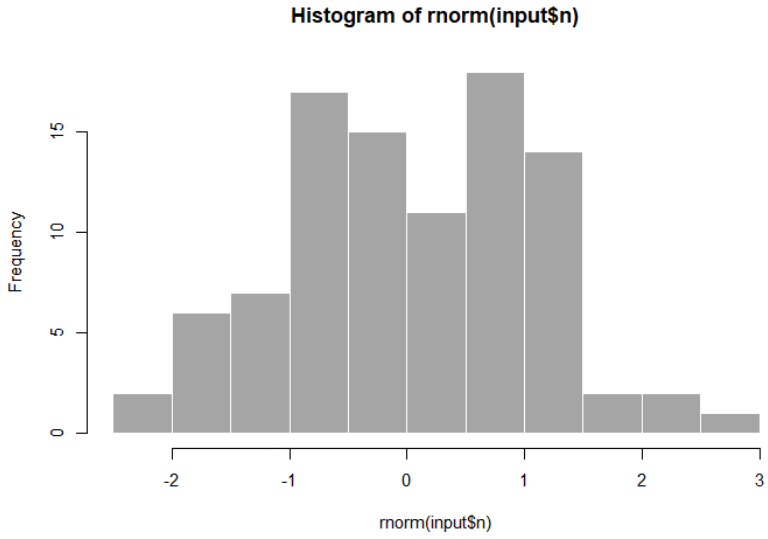
100



My First Shiny App

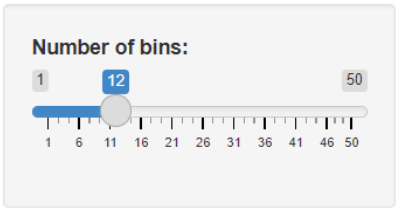
Number of observations:

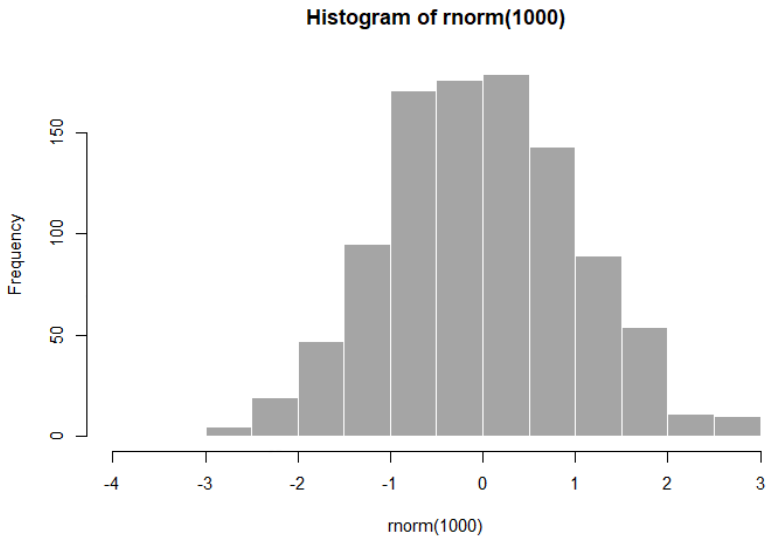
95



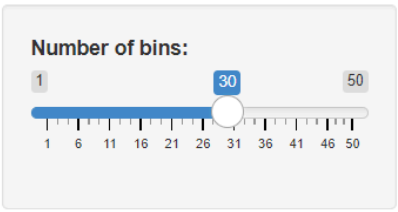
Tut1.R : (Histogram with variable No. of Bins)

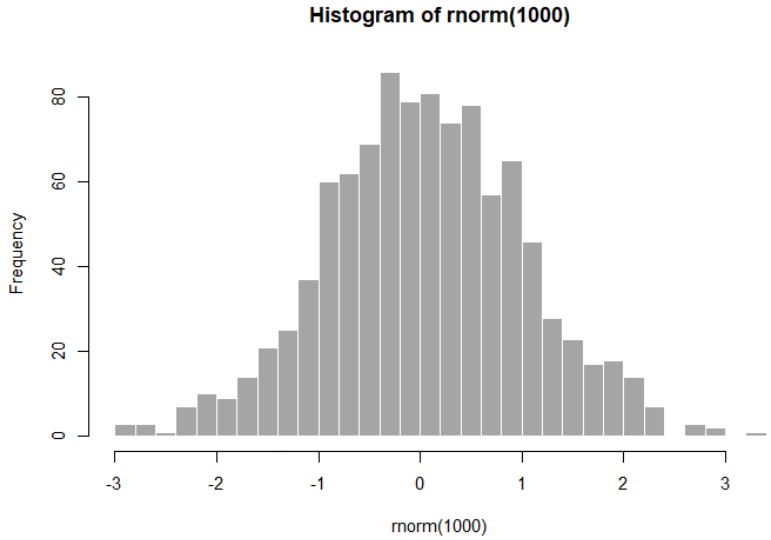
Simple Histogram



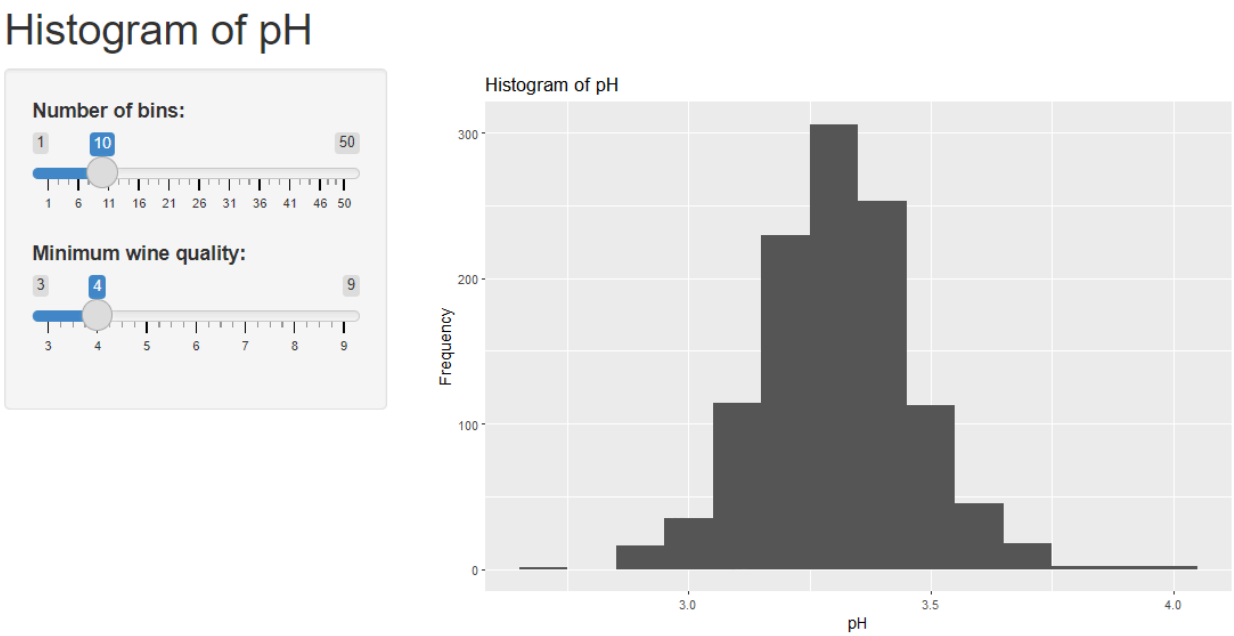


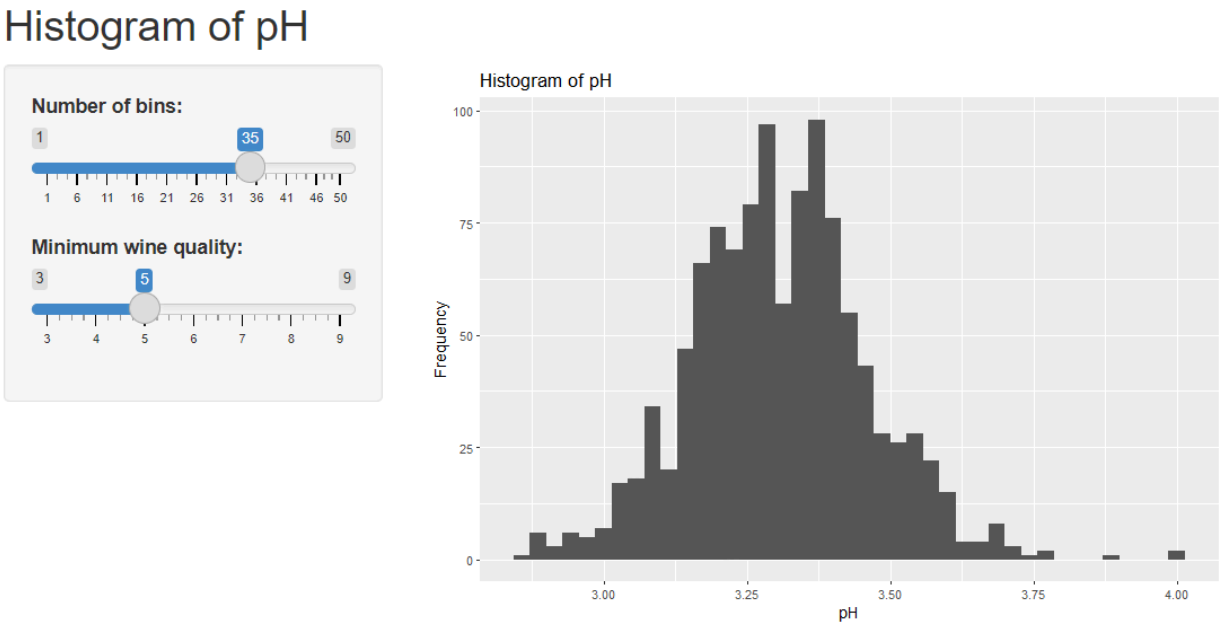
Simple Histogram



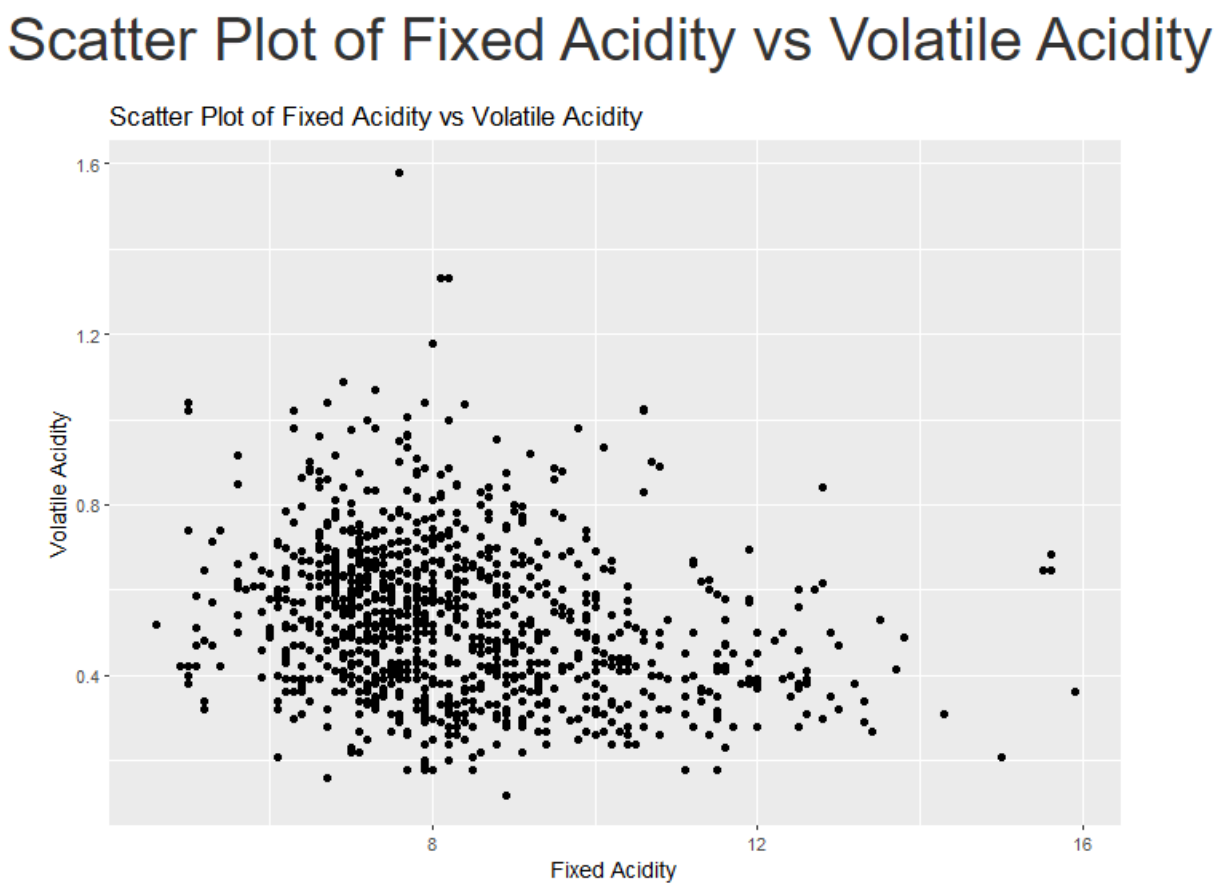


Tut2.R : (Histogram with variable No. of Bins, Wine Quality filter)

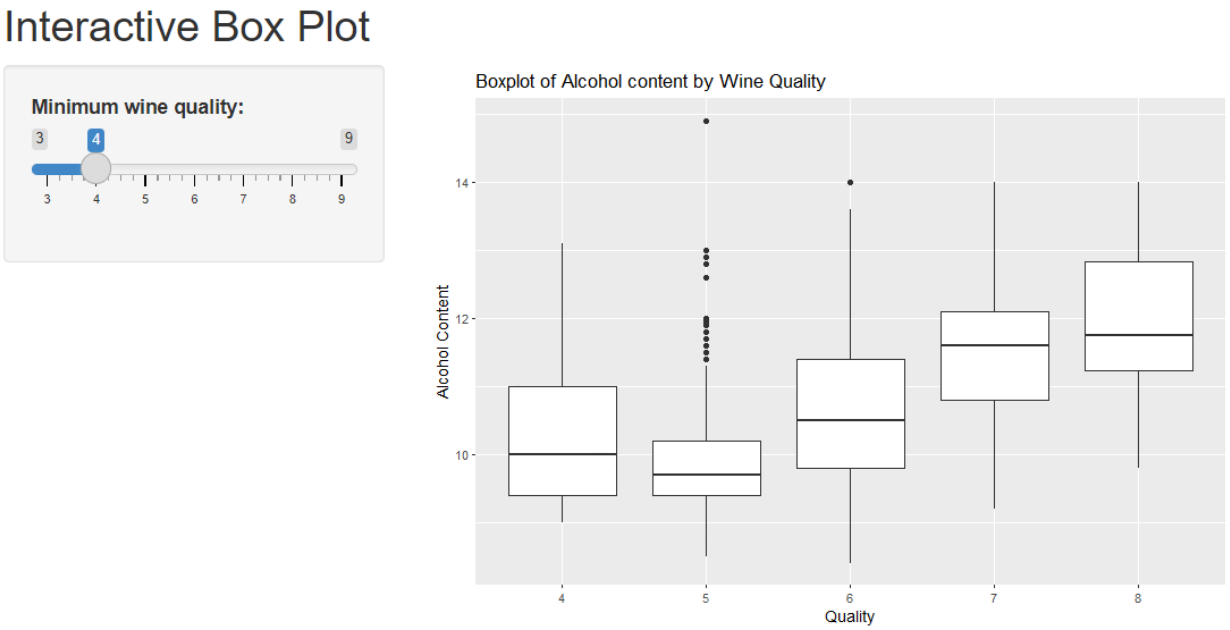


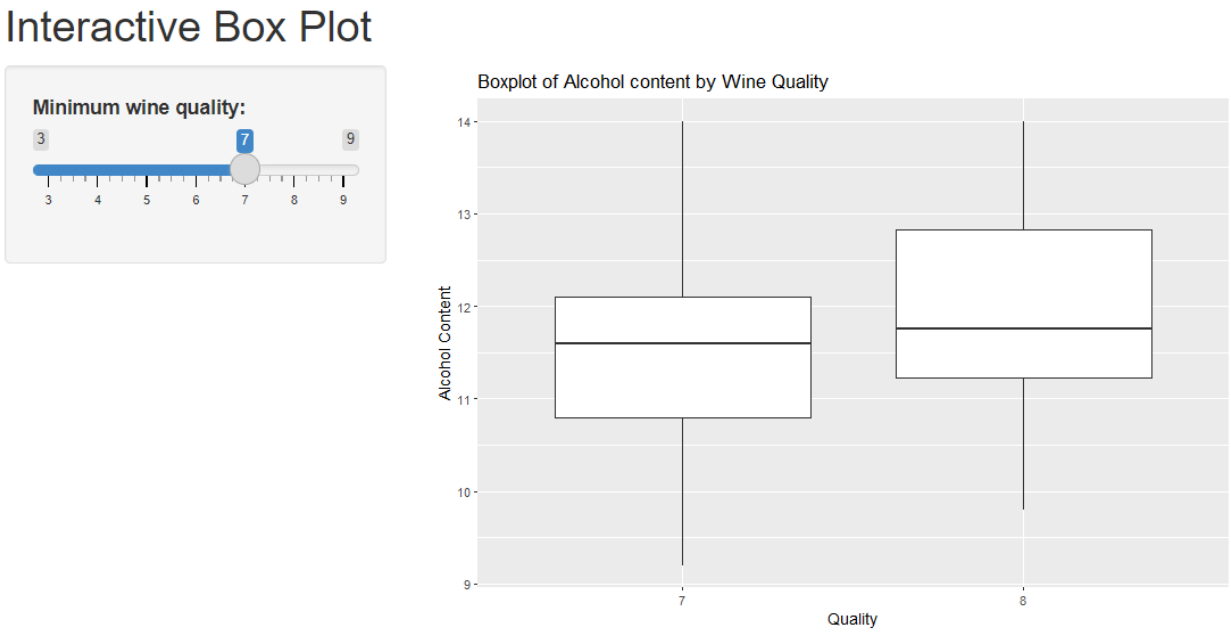


Tut3.R : (Static Scatter Plot)

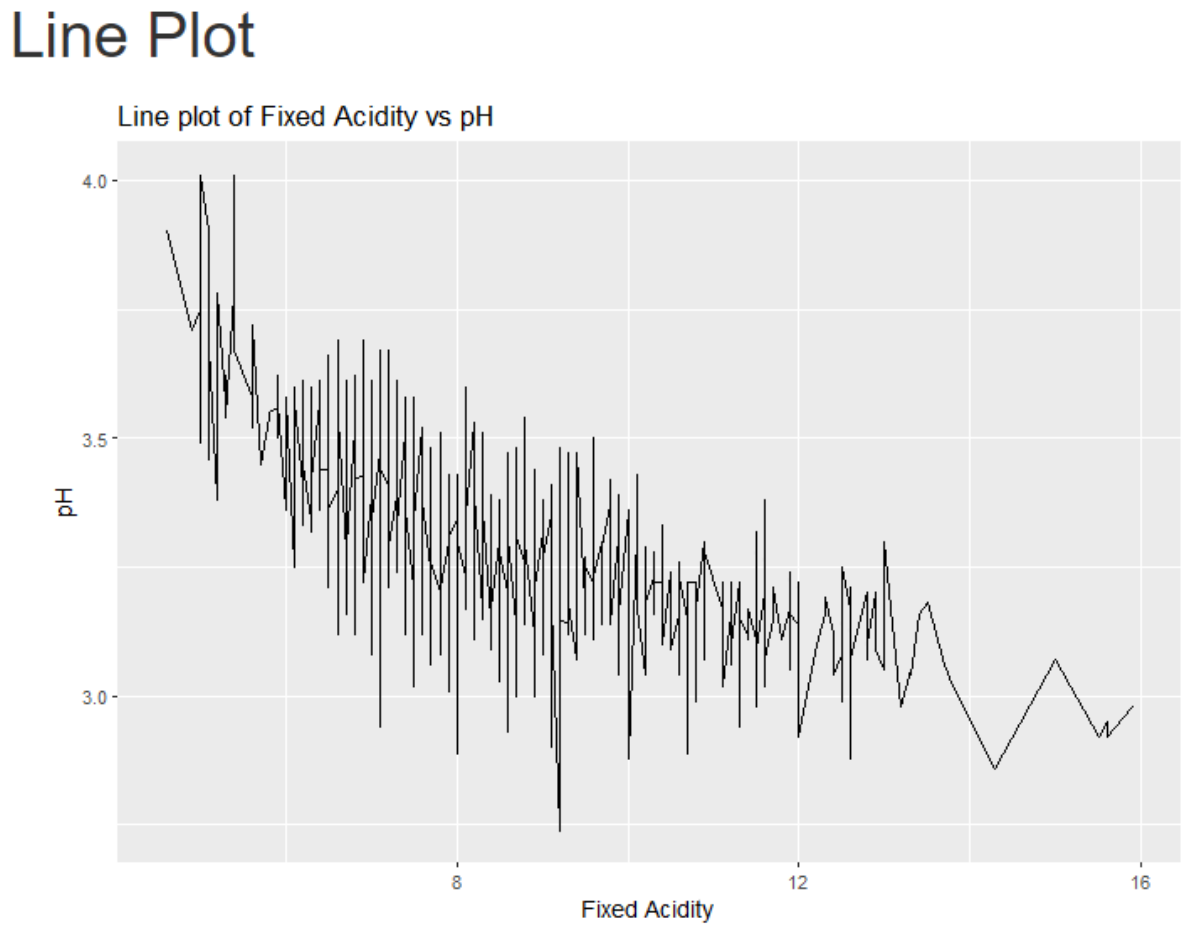


Tut4.R : (BoxPlot with Wine Quality Filter)

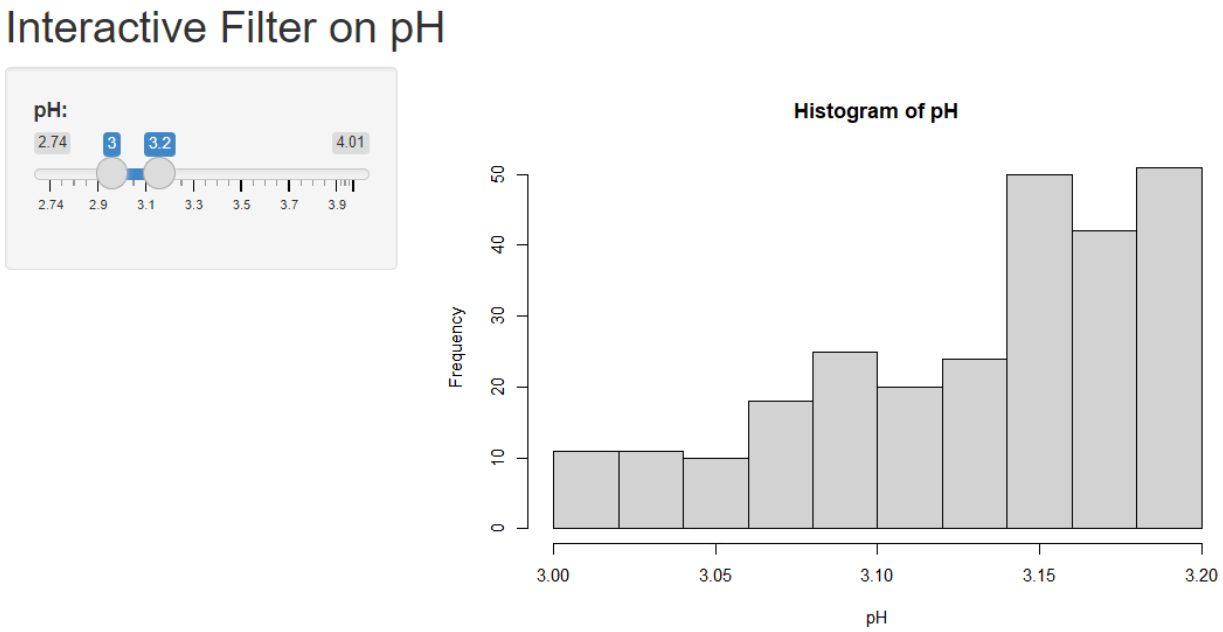


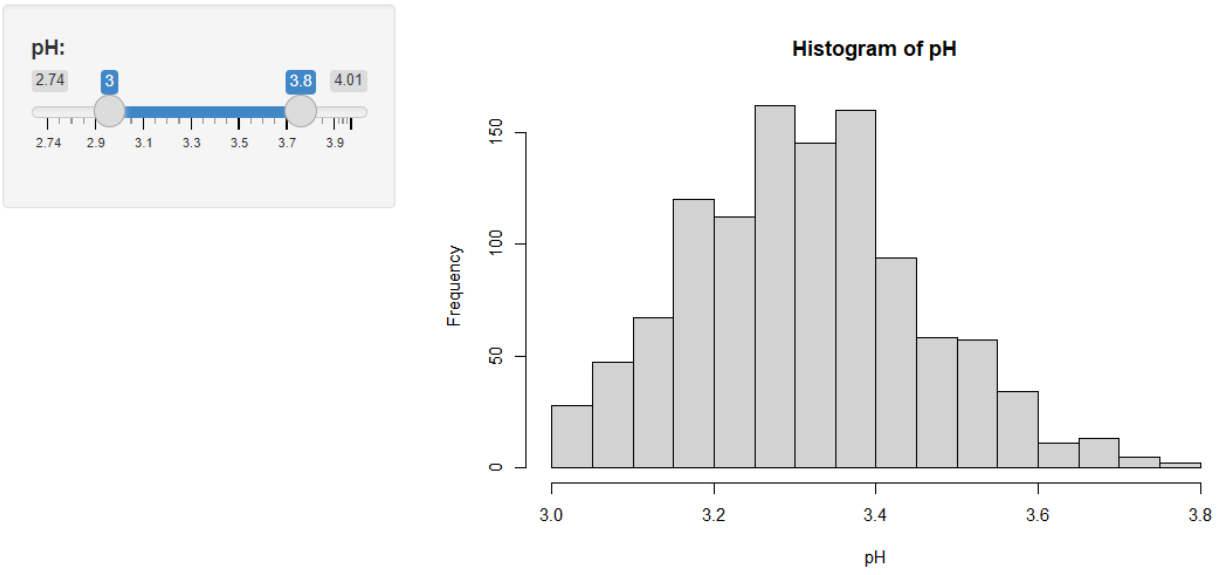


Tut5.R : (Static Line Plot)

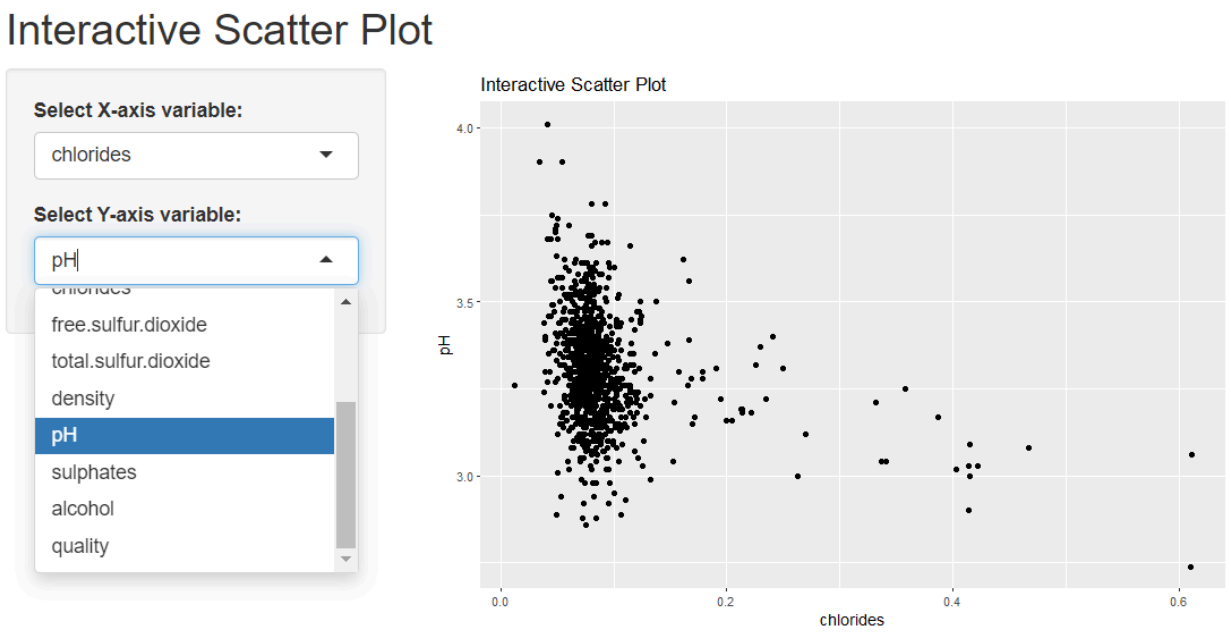


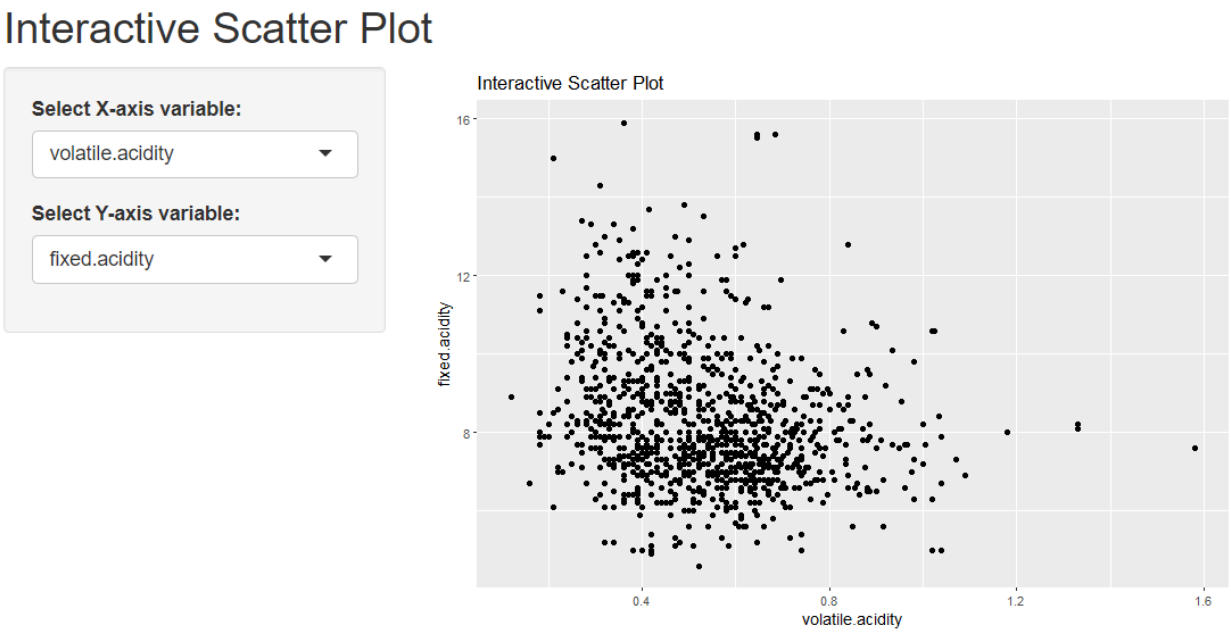
Tut6.R : (Histogram with given pH range)





Tut7.R : (Interactive Scatters)





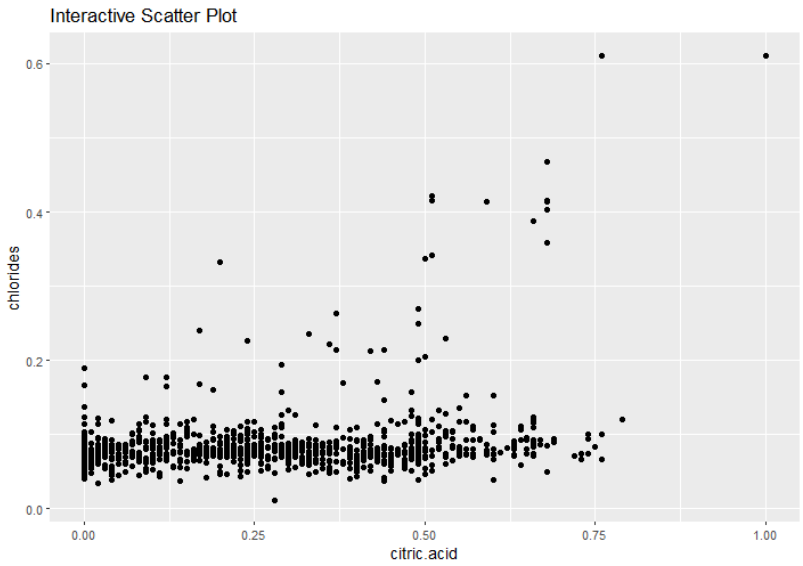
Interactive Scatter Plot

Select X-axis variable:

citric.acid

Select Y-axis variable:

chlorides



Interactive Scatter Plot

Select X-axis variable:

residual.sugar

Select Y-axis variable:

sulphates