Building Dashboard

Introduction

During this tutorial, you will learn to build a graphical user interface to perform a set of data analysis tasks using RStudio based Shiny dashboard.

Data

You can use a dataset of choice. Using the pid.csv dataset would be the best choice as it is quite small.

Tasks

You can build a separate dashboard for each task but try to combine them at the end in a single dashboard.

1. Load the content of the csv file and display it in a tabular format.
2. Build (interactive) plots to show distribution of all variables. Use histogram for categorical (factor) variables, the estimated density for continuous variables)
3. Construct (interactive) tabset to allow the user to select an outlier detection method (statistical or distance based outlier detection), a variable (column) of the data and the required parameters then display the data with outliers marked in different color.
4. Construct (interactive) tabset to allow the user to select a clustering method (kmeans or DBSCAN), two variables (columns) of the data and the required parameters then display the different clusters in different colors.
5. Build a Shiny dashboard to perform all the tasks in a single application. Your application can be similar to the dashboard in the next figure.