Statistics with R – Advanced Level Practice

Note: If you did not do it already, please download the CSV data files and extract them on your hard drive. You can find the download link in the section *Course Materials*.

Section 3

Grouping Methods

Exercise #1

Perform a multidimensional scaling using the variables in the data file *brandscores.csv*.

Exercise #2

Perform a factor analysis with the following variables in the data set *vehicles.csv*: *engine, horsepow, wheelbas, width, length, weight, fuelcap, mpg, price.*

Exercise #3

Perform a simple correspondence analysis with the variables in the file *prodsales.csv*. Build a chart to visualise the profiles of the two variables in a two dimension space.

Exercise #4

Perform a multiple correspondence analysis with the following variables in the file *directmail.csv*: *gender, married, education, income*. Build a chart to visualise the profiles of the four variables in a two dimension space.

Exercise #5

Perform a k-means cluster analysis with the following variables in the file *vehicles.csv*: *engine, horsepow, wheelbas, width, length, weight, fuelcap, mpg*.

Exercise #6

Using the data set *vehicles.csv*, run a simple discriminant analysis where the dependent variable is *type* and the independent variables are *engine, horsepow, wheelbas, width, length, weigth, fuelcap, mpg* and *price*.

Exercise #7

Using the data set *bankloan.csv*, run a multiple discriminant analysis where the dependent variable is *ed* (education level) and the independent variables are *income, creddebt* (cedit card debt) and *otherdebt* (other debt).