Exercises - March 6 2019

# Exercise 1 - vectors and data frames

- The following table give the elevation (in meters, above see level) and area (in square kilometers) of some lakes in Canada
- create three vectors, holding the lake's name, elevation and area, respectively, and build a dataframe called `manitoba.lakes` from the vectors

1 evaluate the highest and lowest height lake

2 order the frame with respect to the area and determine the two largest area lakes

3 by summing up the areas occpupied by the lakes, determine the area of the region covered by water

| | elevation | area |
|---|---|---|
| Winnipeg | 217 | 24387 |
| Winnipegosis | 254 | 5374 |
| Manitoba | 248 | 4624 |
| SouthernIndian | 254 | 2247 |
| Cedar | 253 | 1353 |
| Island | 227 | 1223 |
| Gods | 178 | 1151 |
| Cross | 207 | 755 |
| Playgreen | 217 | 657 |

# Exercise 2

- install the DAAG packages:
- `install.packages(c('DAAG'), type='source')`
- after having loaded the library, get information on the `ais` data
- determine if any of the columns hold missing values
- make a table showing the number of males and females for each different sport

# Exercise 3

- the file `rilesemei_30062018_0_eng.csv` is an open data file available on the Italian Ministry of Internal Affairs web site (`https://dait.interno.gov.it/documenti/rileseme_30062017_0.csv`)
- it contains a survey of the italian electorate, updated every six months
- import the file from the network (a local copy is available at: `https://userswww.pd.infn.it/~agarfa/didattica/AdvStat/rileseme_30062018_0_eng.csv`) and determine the total number of italian males and females in the electoral population