Some Useful packages (from Mikko Vihtakari's R course)

Some useful packages worth checking out are:

- openxlsx - A package for reading and writing MS Excel files.
- tidyverse - A collection of packages to improve data manipulation and plotting capabilities. Including:
    - ggplot2 - A powerful plotting tool. Comes with an internet page that contains everything you need to efficiently use the package. You can also check out R cookbook for ggplot2.
    - tidyr - For reshaping data frames between long and wide formats.
    - dplyr - Powerful tool for grouping data.
- data.table - Powerful package for manipulating large (several GB) datasets.
- vegan - The most advanced tool for multivariate statistics in R. Comes with an excellent tutorial.
- ca - Another multivariate package. Developed by Michael Greenacre.
- Hmisc - Contains many useful functions.
- MASS - Functions and datasets to support Venables and Ripley, *Modern Applied Statistics with S* (4th edition, 2002).
- knitr - Embed your data and figures into your manuscripts. If you change a figure, it will be automatically updated in your manuscript. A method to run R code from $LaTeX$

- rmarkdown - Another package for manuscript, report and webpage writing using R.
- xtable - Import your R tables to $LaTeX$ documents.
- GIS in R - Plot your data on maps and do spatial analyses using these packages:

    - sp - Tool for handling spatial shape files.
    - maptools - Package for reading and handling spatial objects.
    - spatstat - The most powerful spatial analysis tool for R. One of the largest R packages containing over 2000 functions and contributions from researches all over the world.
    - rgdal - Spatial object projection library.
    - mapdata - Map database.
    - marmap - Download and plot NOAA bathymetry data to R.
    - PlotSvalbard - An attempt to simplify maritime map-making in R.