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STAT40830 - Assignment 2

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This assignment is based on the material up to topic 7.

Instructions

Write an R package to read and summarise the *Human Development Indicators* data.

The R package must contain the following:

- 1. One main function to read the file (hdro_indicators_COUNTRYNAME.csv) from any available county (You can assume that all files have the same structure). Notice that the column names must be nicely shown, and the correct class assigned to the variables (such as numeric, factor etc).
- 2. The output from the main function must belong to a new class
- 3. One printing method for the new class
- 4. One summary method for that class
- 5. One plot method for that class
- 6. You must provide documentation for the main function, and the R package you created.
- 7. One vignette showing how the main function and the three methods work with at least two dataset.

Some notes:

- Notice that you can re-use some code you created for Assignment 1, or create it from scratch.
- In your functions/methods you can use functions from any packages.
- Remember that in an R package you must never have any file path specific to your computer. You can assume that the original data are downloaded in the working directory.

Submission

Submission: upload on the Assignment 2 assessment on Brightspace a **zip file** containing:

- 1. the package source (tar.gz) (devtools::build),
- 2. the pdf manual (devtools::build_manual)
- 3. and the html or pdf vignette (devtools::build_vignettes()).
- Note that only your final submission will be marked.
- There are 20 marks for this assignment. This assignment is worth 20% of your final grade.
- Late submissions will score 0.

How to get the data:

(Same as Assignment 1) For Assignment 2 you will have to download the dataset of the *Human Development Indicators* for at least different countries of your choice from <u>data.humdata.org/dataset/?organization=undp-human-development-reports-office&q=Human+Development+Indicators</u>:

- Click over **COUNTRYNAME Human Development Indicators** and download the dataset called **Human Development Indicators for COUNTRYNAME** it will give you a .csv file. (The dataset contains the following variables: country_code, country_name, indicator_id, indicator_name, index_id, index_name, value, year.)
- repeat this procedure for at least a second country.