**Basic R Programming**

**Case study:**

**Master Programmes Admission**

(simplified version - no positions for tuition fee studies)

Given two data frames stored as an `.Rdata` file `master\_admiss1.Rdata` - see `DataSets` directory on GitHub:

<https://github.com/marinfotache/Data-Processing-Analysis-Science-with-R/tree/master/DataSets>

Data frame **master\_progs** stores every program abbreviation, name, and the number of available positions:

**master\_progs**

* prog\_abbreviation
* prog\_name
* n\_of\_positions

Data frame **applicants** stores information about applicants:

* "prog1\_abbreviation", "prog2\_abbreviation", … describes applicant preferences (she/he wants to be accepted at "prog1\_abbreviation", but if her/his results are not good enough for this program, she/he would prefer "prog2\_abbreviation", etc.)
* "grades\_avg" refers to applicant's grades average (first part of the acceptance criteria for all master programmes)
* "dissertation\_avg" refers to applicant's dissertation average (the other part of the acceptance criteria for all master programmes)

**applicants:**

- applicant\_id

- applicant\_name

- grades\_avg

- dissertation\_avg

- prog1\_abbreviation

- prog2\_abbreviation

- prog3\_abbreviation

- prog4\_abbreviation

- prog5\_abbreviation

- prog6\_abbreviation

Write the R modules for assigning each applicant to one of her/his programme options, according to the points average and create data frame `results`:

**results**

- applicant\_id

- prog\_abbreviation\_accepted

Students ranking depends on the applicants' admission average points which are computed as

**grades\_avg \* 0.6 + dissertation\_avg \* 0.4**

* Version 1 of the solution will not use any user-defined functions
* Version 2 of the solution will use (at will) user-defined functions