

Getting started

- ① www.r-project.org → R is free!
- ② www.rstudio.com → download and install

Data structures and Syntax

<u>Homogeneous</u>	<u>Heterogeneous</u>
1d <u>Vector</u> ←	List
2d Matrix	Data frames
nd Array	
the contents must be of <u>the same type</u>	the contents can be of different types

1- Vectors

The basic data type in R is the vector.

- 1- Integer vector
- 2- Double vector (often called numeric)
- 3- Character vector
- 4- Logical vector
- 5- Complex vector (!)

Types of Categorical Variables

- 1- A nominal (categorical) variable: is a variable without an implied order.

Example: Gender (Sex) : Male / Female
Hair Color : Brown, Black or Blonde

c("low", "medium", "high")

c("female", "male", "male", "female")

- 2) An ordinal (categorical) variable: has a natural ordering.

Example:
Low
Medium
High } medium ranks higher than low and
High ranks lower than medium.

factor(c("low", "medium", "high"), order = TRUE, levels = c("low", "medium", "high"))
 1st argument is the data 2nd argument is the order 3rd argument is the way you wish the order be like

⊗ factor() refers to categorical variables.

⊗ c(), seq() or rep() can be used to create vectors

⊗ rm() : remove an object
Ctrl + L : Clean Console