

Data Types & Handling Data In R

Agenda

Recap of Week 1.

Data Types in R

Exporting and Importing Data in R

Handling Statistical tool formats

Handling Data in R



Recap of Week 1

Part 1 - Getting Started with R

- Introduction & Learning objectives.
- Download and install R
- Download and Install R Studio
- R Studio
 - R Console, File Editor, Package Manager & Help
 - Open R studio & Hello World
 - Use R as a calculator.
 - Work with variables
 - Install and load packages [CRAN, GitHub & Local Zip]
- Upload and Saving Workspace

Data Types in R

R Basic Data Types:

- Numeric
- Integer
- Logical
- Complex
- Character

Data Types in R

Numeric:

- In R decimal values are called as Numeric.
- Default computational Type
- Even if an integer is assigned by default it is still saved as numeric.

Integer:

- In order to create integer value in R, we need to explicitly mention the integer function.
- We can also define integer variable by mentioning L followed by the value

Data Types in R

Logical

- TRUE and FALSE are reserved words denoting logical constants in R.
- T and F are global variables whose initial values are set to TRUE and FALSE.

Character

- In R, character object is used to represent string values.

Complex

- Complex values in R are defined using the pure imaginary value

Data Types in R

Vectors

- Vector is a sequence of data elements of the same basic type.
- Elements in Vector are called components sometimes also referred as members of the vector.
- Vectors can be combined using the function `c()`
- Value Coercion:
 - When two different primitive data type consisting members vectors are combined , to maintain the same primitive data type. The data type of the members are changed to one single type.
- Recycling Rule:
 - If two vectors of unequal length is used for any arithmetic operation the shorter one is recycled to match the longer vector.

Data Types in R

Matrix:

- Collection of data elements arranged in a two dimensional layout.
- The data elements must be of the same basic data type.

List:

- Generic Vector containing other objects

Data Frames:

- Most widely used data type in the space of analytics.
- It is used for storing the data tables.
- It is a list of vectors of equal length.

Importing and exporting Data in R

- Importing & Exporting Data from Database
- Importing & Exporting Data from .csv format
- Web Scraping using R.
- Importing Data from statistical formats



Thank you