R for Data Scientists

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Variables: Naming Conventions

- Named storage

  - Refers to memory location where the data it refers to is stored

  - Give meaningful names

    - Make the program readable

- Names can contain

  - Letters and numbers

  - Underscore and dot

- Names must start with a letter or a dot <u>NOT</u> followed by a number

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Valid or Invalid

Variable Name	Valid?	Remarks
area_circle3.14		
area_circle#		
5area_circle		
.area_circle		
area.circle		
.4area_circle		
area.4circle		
_area_circle		

Valid or Invalid

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Data Types

- Numeric

- Integer

- Character

- Logical

- Complex

- Raw

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Data Objects

- Vectors

- Lists

- Matrices

- Arrays

- Factors

- Data frames

- Variables take on data types of R objects

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Variables: Data Types, etc.

- R is dynamically typed language

- No variable data type declaration

- Variable's data type
    - Same as that of R object associated with it
    - Can change its data type by assigning different objects

- Variables starting with dot are hidden

- ls() to list all variables in the workspace

- rm() to remove/delete variables

- Type testing, conversion and coercion
    - is.numeric(), is.character(), is.vector(), is.matrix(), is.data.frame()
    - as.numeric(), as.character(), as.vector(), as.matrix(), as.data.frame(), cbind(), rbind()

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