Objects in R

R

Basic classes of objects

- Character
- Integer
- Numeric (real numbers)
- Logical (TRUE/FALSE)

Storing objects

Storing objects is called **assignment**.

The **assignment operators** in R are $<-$ and $=$.

```
min_age <- 21
min_age = 21
```

Character objects

Character objects can be created by surrounding text in double or single quotes.

```
"This is a character object."
'This is also a character object.'
```

Example of a character vector of length 1:

```
my_char <- "This is a character object."
```

Example of a character vector of length 2:

```
my_char_vec <- c("char object 1", "char object 2")
```

`c()` is the concatenation function

Integer objects

Integer objects are created by specifying `L` after an integer number.

```
num <- 1L
```

Example of an integer vector of length 3:

```
num_vec <- c(1L, 10L, 3L)
```

Numeric objects

Numeric objects are created by simply specifying a number.

```
num <- 1.2
```

Example of a numeric vector of length 2:

```
num_vec <- c(1.2, 9.8)
```

Logical objects

Logical values in R are `TRUE` and `FALSE`.

```
check_condition <- TRUE
check_condition <- FALSE
```

Example of a logical vector of length 3:

```
check_condition <- c(TRUE, TRUE, FALSE)
```

Data frames

Columns correspond to variables.

```
model               mpg cyl disp  hp drat    wt  qsec vs am gear carb
Mazda RX4          21.0   6  160 110 3.90 2.620 16.46  0  1    4    4
Mazda RX4 Wag      21.0   6  160 110 3.90 2.875 17.02  0  1    4    4
Datsun 710         22.8   4  108  93 3.85 2.320 18.61  1  1    4    1
Hornet 4 Drive     21.4   6  258 110 3.08 3.215 19.44  1  0    3    1
Hornet Sportabout  18.7   8  360 175 3.15 3.440 17.02  0  0    3    2
Valiant            18.1   6  225 105 2.76 3.460 20.22  1  0    3    1
```

Rows correspond to observations.