

# Data Frames

Data frames are used to store tabular data

- They are represented as a special type of list where every element of the list has to have the same length
- Each element of the list can be thought of as a column and the length of each element of the list is the number of rows
- Unlike matrices, data frames can store different classes of objects in each column (just like lists); matrices must have every element be the same class
- Data frames also have a special attribute called `row.names`
- Data frames are usually created by calling `read.table()` or `read.csv()`
- Can be converted to a matrix by calling `data.matrix()`

# Data Frames

```
> x <- data.frame(foo = 1:4, bar = c(T, T, F, F))
> x
  foo  bar
1   1 TRUE
2   2 TRUE
3   3 FALSE
4   4 FALSE
> nrow(x)
[1] 4
> ncol(x)
[1] 2
```