



INTRODUCTION TO R

Create and Name Lists

Vector - Matrix - List

- Vector: 1D, same type
- Matrix: 2D, same type
- List
 - Different R objects
 - No coercion
 - Loss of some functionality

Create list

list()

```
> c("Rsome times", 190, 5)
[1] "Rsome times"    "190"    "5"

> list("Rsome times", 190, 5)
[[1]]
[1] "Rsome times"

[[2]]
[1] 190

[[3]]
[1] 5

> song <- list("Rsome times", 190, 5)
> is.list(song)
[1] TRUE
```

Name list

```
> song <- list("Rsome times", 190, 5)

> names(song) <- c("title", "duration", "track")

> song
$title
[1] "Rsome times"

$duration
[1] 190

$track
[1] 5
```

Name list

```
> song <- list(title = "Rsome times",  
               duration = 190,  
               track = 5)
```

```
> str(song)  
List of 3  
 $ title      : chr "Rsome times"  
 $ duration: num 190  
 $ track      : num 5
```

List in List

```
> similar_song <- list(title = "R you on time?",  
                        duration = 230)  
  
> song <- list(title = "Rsome times",  
               duration = 190, track = 5,  
               similar = similar_song)  
  
> str(song)  
List of 4  
 $ title      : chr "Rsome times"  
 $ duration: num 190  
 $ track      : num 5  
 $ similar :List of 2  
  ..$ title    : chr "R you on time?"  
  ..$ duration: num 230
```