



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
```



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**Let's practice!**