INTRODUCTION TO R

Basic Data Types

logical

`class()` **to reveal type**

```
> TRUE
[1] TRUE
> class(TRUE)
[1] "logical"

> FALSE
[1] FALSE

> class(NA)
[1] "logical"

> T
[1] TRUE
> F
[1] FALSE
```

numeric

```
> 2
[1] 2

> 2.5
[1] 2.5

> 2L
[1] 2

> class(2)
[1] "numeric"

> class(2L)
[1] "integer"
```

numeric

```
> is.numeric(2)
[1] TRUE

> is.numeric(2L)
[1] TRUE

> is.integer(2)
[1] FALSE

> is.integer(2L)
[1] TRUE
```

`integer` **is** `numeric`
`numeric` **not always** `integer`

character

```
> "I love data science!"
[1] "I love data science!"

> class("I love data science!")
[1] "character"
```

Other atomic types

- `double`: higher precision
- `complex`: complex numbers
- `raw`: store raw bytes

Coercion

```
> as.numeric(TRUE)
[1] 1
> as.numeric(FALSE)
[1] 0
> as.character(4)
[1] "4"
> as.numeric("4.5")
[1] 4.5

> as.integer("4.5")
[1] 4
> as.numeric("Hello")
[1] NA
Warning message:
NAs introduced by coercion
```

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Let’s practice!