Welcome to Introduction to R for Finance!

INTRODUCTION TO R FOR FINANCE

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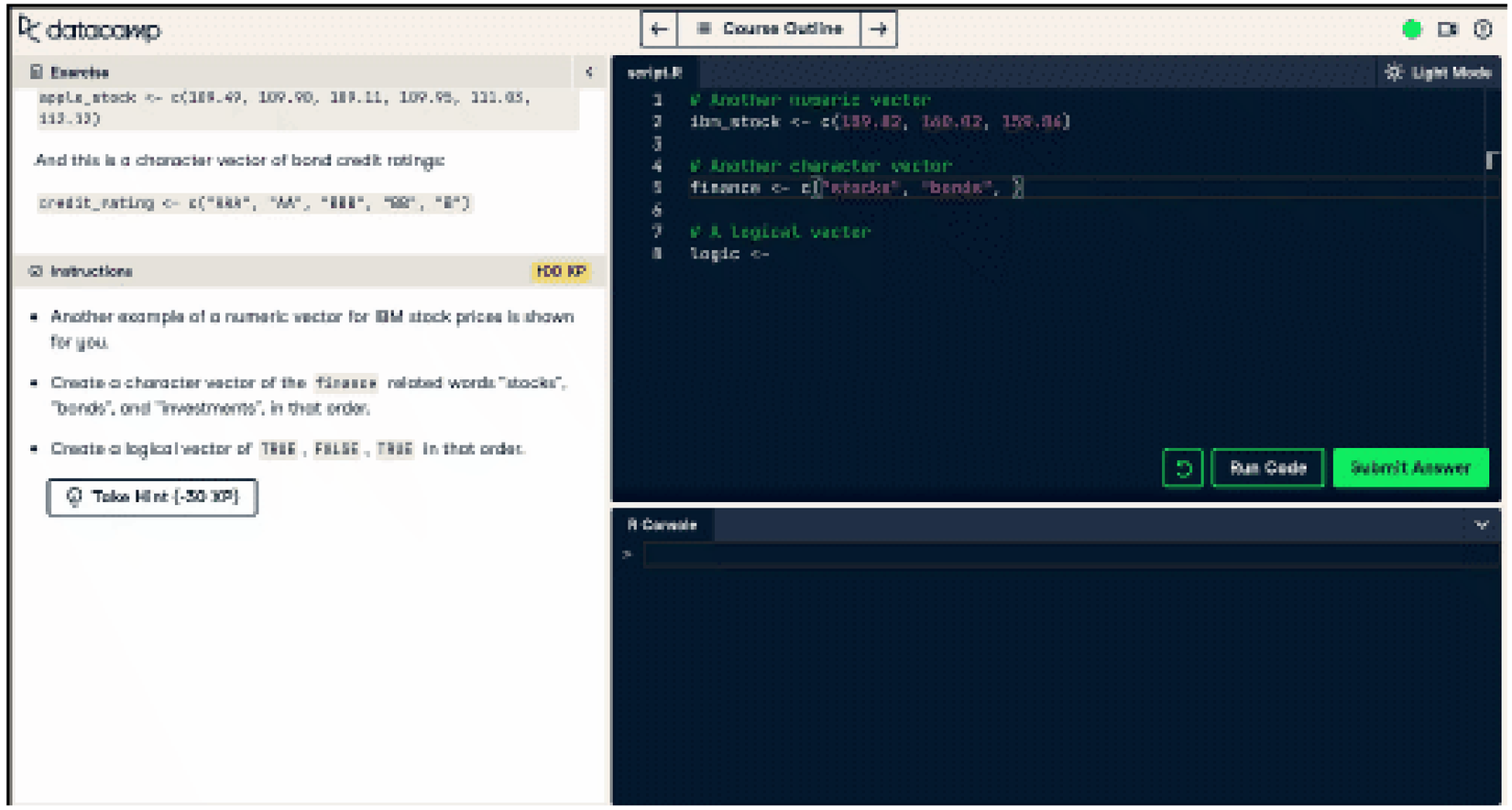
datacamp

A Hands-On Course

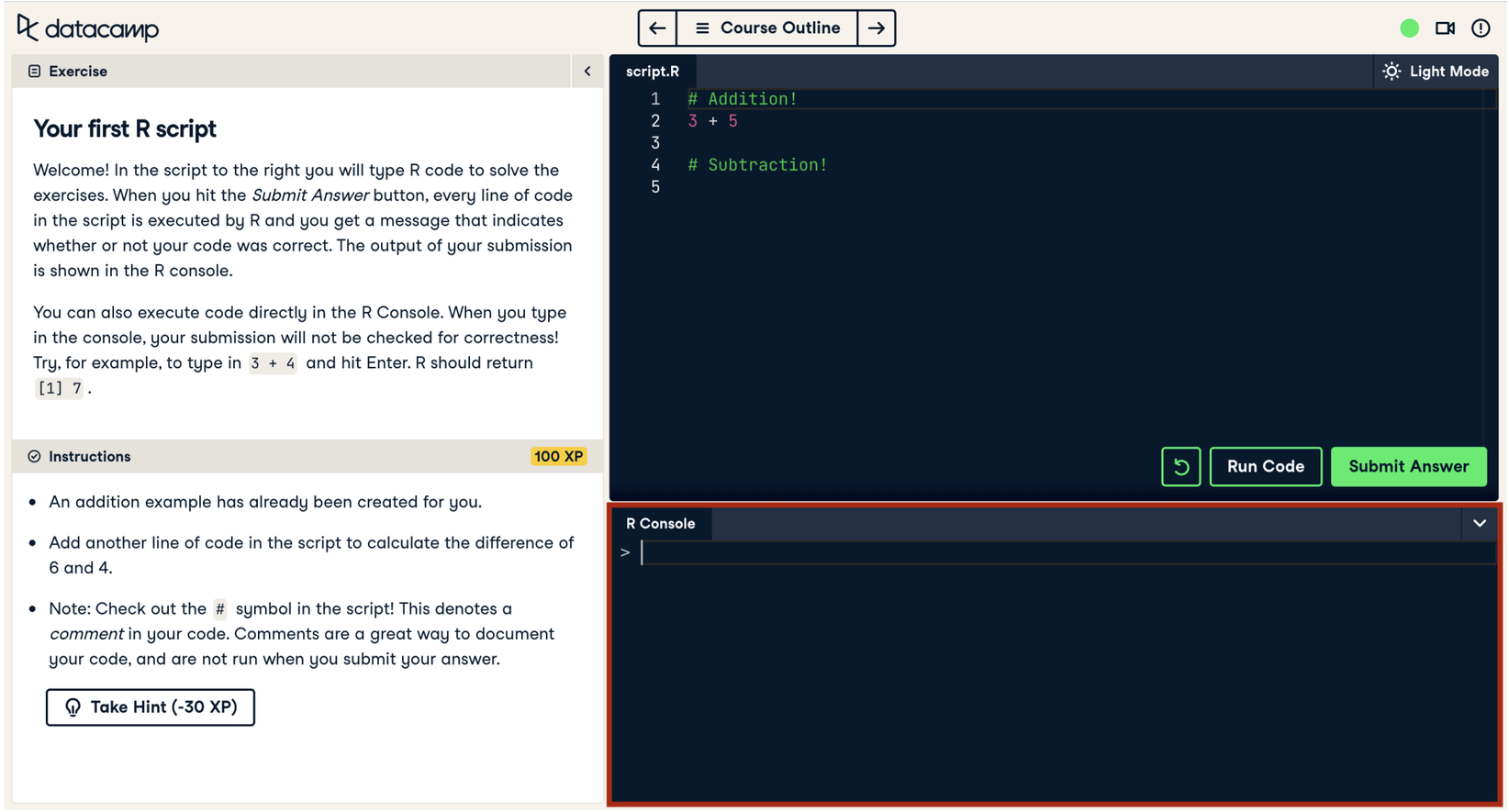


What will you learn?

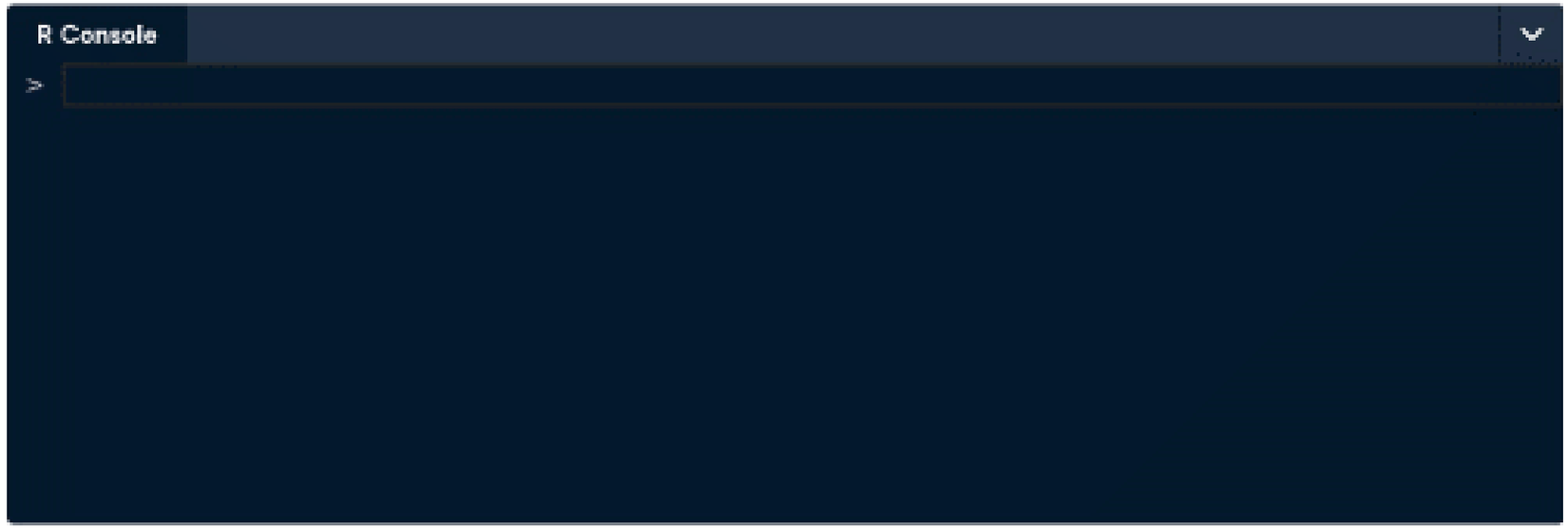
- Basics of R
- Data structures
- Finance examples

Console

- Execute R commands

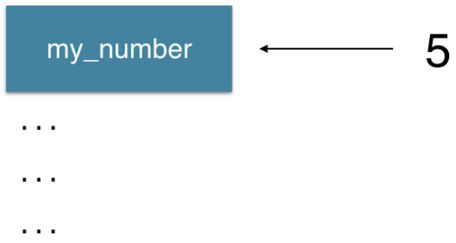


Console

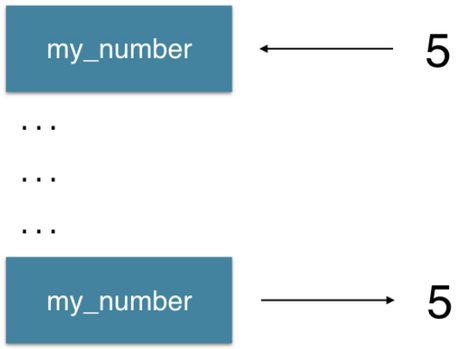


Variables or objects

Variables or objects



Variables or objects




```
my_number <- 5


my_number
```

```
5
```

Arithmetic in R

```
dan <- 100
rob <- 50
dan + rob
```

```
150
```

```
total <- dan + rob
total
```

```
150
```

R Scripts

- `script.R`

```
dan <- 100
rob <- 50
total <- dan + rob
total
```

```
dan <- 100
rob <- 50
total <- dan + rob
total
```

```
150
```

Let's practice!

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Financial returns

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Stock returns

- $50 worth of Apple stock
- 10% return in January
- How much money do you have at the end of the month?

5 = 10% of 50

55 = 50 + 5

Stock returns

$$110\% = 100\% + 10\%$$

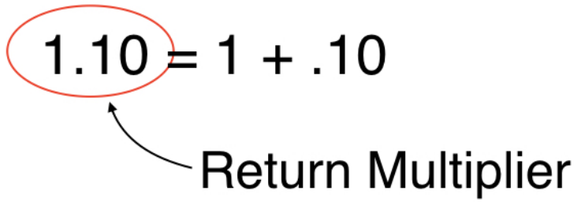
Stock returns

$$110\% = 100\% + 10\%$$

$$1.10 = 1 + .10$$

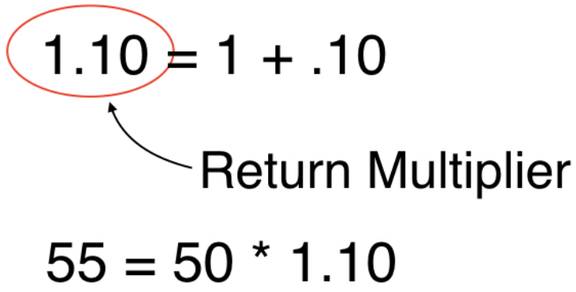
Stock returns

110% = 100% + 10%



Stock returns

110% = 100% + 10%



55 = 50 * 1.10

```
# Return Multiplier
mult <- 1 + interest_rate / 100
# New Amount
new_cash <- starting_cash * mult
```

Stock returns - multiple periods

- $50 worth of Apple stock
- 10% return in January
- 5% return in February

```
57.75 = 55 * 1.05
```

```
57.75 = 50 * 1.10 * 1.05
```

```
new_cash <- starting_cash * jan_mult * feb_mult
```

Let's practice!

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Basic data types

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Numeric

```
42.5
```

```
42.5
```

```
5
```

```
5
```

```
5L
```

```
5
```

Character

```
"Hello world"
```

```
"Hello world"
```

```
"forty"
```

```
"forty"
```

```
"5"
```

```
"5"
```

Logical

```
TRUE
```

```
TRUE
```

```
NA
```

```
NA
```

```
FALSE
```

```
FALSE
```

```
true
```

```
Error: object 'true' not found
```

Variables and data types

```
my_answer <- TRUE
my_answer
```

```
TRUE
```

```
food <- "carrots"
food
```

```
"carrots"
```

class()

```
my_answer <- TRUE
class(my_answer)
```

```
"logical"
```

```
class(5)
```

```
"numeric"
```

```
class(5L)
```

```
"integer"
```

Let's practice!

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