



# R PACKAGE VALIDATION WORKSHOP

The Validation Report

# Welcome

- Adding Test Cases
- Adding Test Code
- Validation Reports in R packages

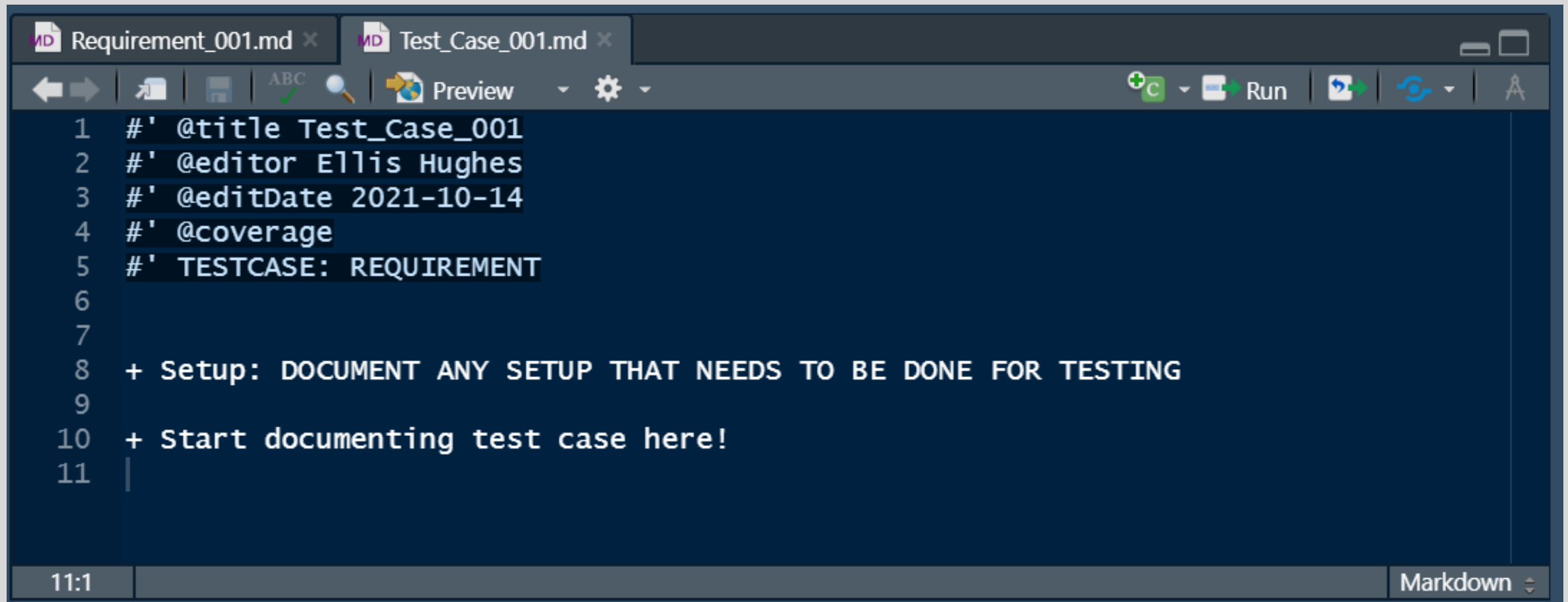


# VALIDATION ELEMENTS

# Test Cases - vt\_use\_test\_case()

- Key Arguments
  - name,
  - username
- Name – requirement name
- Username – Person's name writing test case

# Test Cases - vt\_use\_test\_case()



The screenshot shows a code editor with two tabs: 'Requirement\_001.md' and 'Test\_Case\_001.md'. The 'Test\_Case\_001.md' tab is active, displaying a template for a test case. The editor has a dark blue background and a light blue sidebar on the right. The top toolbar includes icons for navigation, search, and a 'Run' button. The code is as follows:

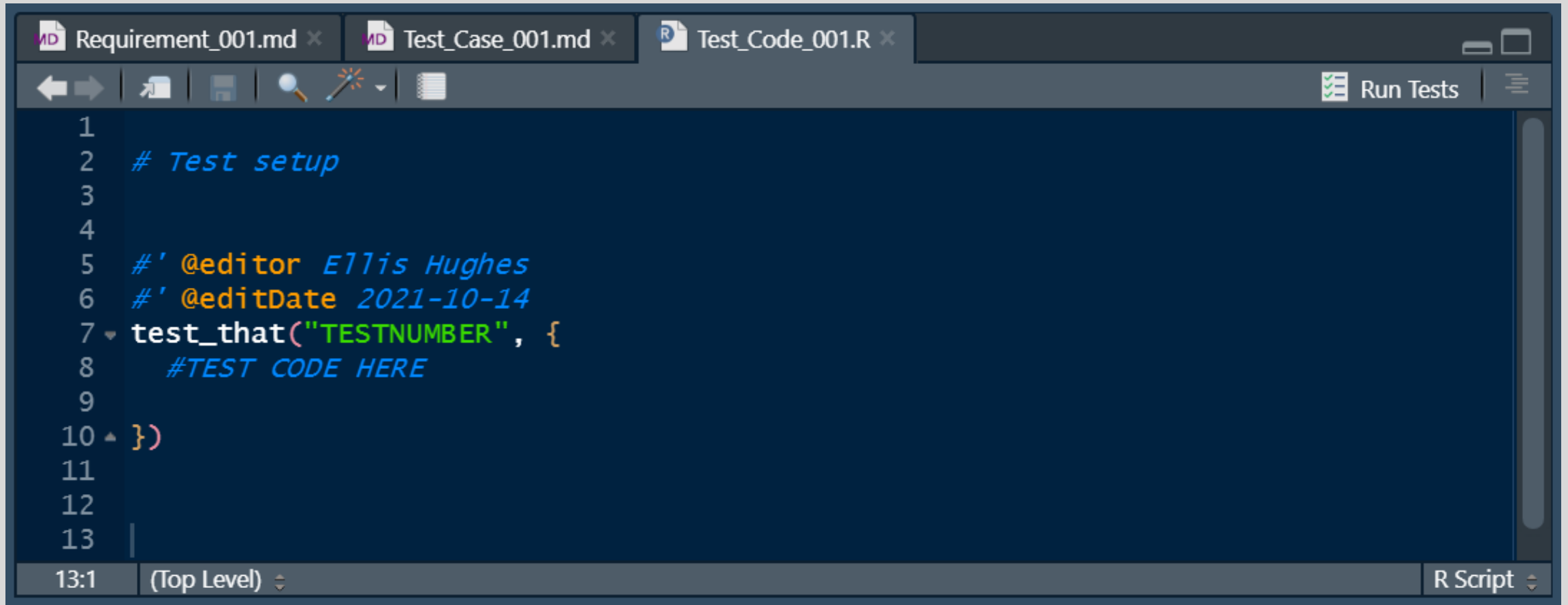
```
1 #' @title Test_Case_001
2 #' @editor Ellis Hughes
3 #' @editDate 2021-10-14
4 #' @coverage
5 #' TESTCASE: REQUIREMENT
6
7
8 + Setup: DOCUMENT ANY SETUP THAT NEEDS TO BE DONE FOR TESTING
9
10 + Start documenting test case here!
11 |
```

The status bar at the bottom shows '11:1' and 'Markdown'.

# Test Code - vt\_use\_test\_code()

- Key Arguments
  - name,
  - username
- Name – requirement name
- Username – Person's name writing test code

# Test Code - vt\_use\_test\_code()



The screenshot shows an RStudio editor window with three tabs: Requirement\_001.md, Test\_Case\_001.md, and Test\_Code\_001.R. The active tab is Test\_Code\_001.R, which contains the following R code:

```
1  
2 # Test setup  
3  
4  
5 #' @editor Ellis Hughes  
6 #' @editDate 2021-10-14  
7 test_that("TESTNUMBER", {  
8   #TEST CODE HERE  
9  
10 })  
11  
12  
13
```

The status bar at the bottom indicates the cursor is at line 13, column 1, and the file is an R Script.



# VALIDATION REPORT



# Report basics

- Parse each requirement and test case file
- Evaluate and capture test code results and print

# {valtools} Reports

- Reports are Rmd and therefore infinitely customizable
- Provided many helper functions with valtools
  - Environment
  - Scraping Validation information
  - Recording News, etc

# Rendering Reports

- `vt_validate_report()` executes the Rmd and saves output
- Serves as “snapshot” in time
- Rmd result from validation to output location



# COMPLETE EXERCISE 5

Navigate to  
Materials/Materials-05-Validation\_Report