

# Package ‘shiny.benchmark’

July 23, 2025

**Title** Benchmark the Performance of 'shiny' Applications

**Version** 0.1.1

**Description**

Compare performance between different versions of a 'shiny' application based on 'git' references.

**License** LGPL-3

**URL** <https://github.com/Appsilon/shiny.benchmark>,  
<https://github.com/Appsilon/shiny.benchmark>

**BugReports** <https://github.com/Appsilon/shiny.benchmark/issues>

**SystemRequirements** yarn 1.22.17 or higher, Node 12 or higher

**Encoding** UTF-8

**RoxygenNote** 7.2.3

**Depends** R (>= 3.1.0)

**Suggests** covr, knitr, lintr, rcmdcheck, rmarkdown, mockr, spelling

**Imports** dplyr, ggplot2, glue, jsonlite, methods, progress, renv,  
shinytest2, stringr, testthat, fs

**Language** en-US

**NeedsCompilation** no

**Author** Douglas Azevedo [aut, cre],  
Appsilon Sp. z o.o. [cph]

**Maintainer** Douglas Azevedo <opensource+douglas@appsilon.com>

**Repository** CRAN

**Date/Publication** 2023-01-20 09:50:02 UTC

## Contents

|                                |   |
|--------------------------------|---|
| benchmark . . . . .            | 2 |
| benchmark_cypress . . . . .    | 3 |
| benchmark_shinytest2 . . . . . | 4 |
| load_example . . . . .         | 5 |

|                                   |          |
|-----------------------------------|----------|
| plot.shiny_benchmark . . . . .    | 5        |
| print.shiny_benchmark . . . . .   | 6        |
| run_cypress_ptest . . . . .       | 6        |
| run_shinytest2_ptest . . . . .    | 7        |
| shiny_benchmark-class . . . . .   | 8        |
| summary.shiny_benchmark . . . . . | 8        |
| <b>Index</b>                      | <b>9</b> |

---

|           |                                                        |
|-----------|--------------------------------------------------------|
| benchmark | <i>Execute performance tests for a list of commits</i> |
|-----------|--------------------------------------------------------|

---

**Description**

Execute performance tests for a list of commits

**Usage**

```
benchmark(  
  commit_list,  
  cypress_dir = NULL,  
  shinytest2_dir = NULL,  
  tests_pattern = NULL,  
  app_dir = getwd(),  
  port = 3333,  
  use_renv = TRUE,  
  renv_prompt = TRUE,  
  n_rep = 1,  
  debug = FALSE  
)
```

**Arguments**

|                |                                                                                                                                                                                         |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| commit_list    | A list of commit hash codes, branches' names or anything else you can use with git checkout ...                                                                                         |
| cypress_dir    | The directory with tests recorded by Cypress. It can also be a vector of the same size of commit_list                                                                                   |
| shinytest2_dir | The directory with tests recorded by shinytest2 It can also be a vector of the same size of commit_list                                                                                 |
| tests_pattern  | Cypress/shinytest2 files pattern. E.g. 'performance' It can also be a vector of the same size of commit_list. If it is NULL, all the content in cypress_dir/shinytest2_dir will be used |
| app_dir        | The path to the application root                                                                                                                                                        |
| port           | Port to run the app                                                                                                                                                                     |
| use_renv       | In case it is set as TRUE, package will try to apply renv::restore() in all branches. Otherwise, the current loaded list of packages will be used in all branches.                      |

|             |                                                             |
|-------------|-------------------------------------------------------------|
| renv_prompt | Prompt the user before taking any action?                   |
| n_rep       | Number of replications desired                              |
| debug       | Logical. TRUE to display all the system messages on runtime |

**Value**

Return a shiny\_benchmark object containing the benchmark call, elapsed time and a list with the collected performance times

---

|                   |                                                                         |
|-------------------|-------------------------------------------------------------------------|
| benchmark_cypress | <i>Run the performance test based on multiple commits using Cypress</i> |
|-------------------|-------------------------------------------------------------------------|

---

**Description**

Run the performance test based on multiple commits using Cypress

**Usage**

```
benchmark_cypress(
  commit_list,
  cypress_dir,
  tests_pattern,
  app_dir,
  port,
  use_renv,
  renv_prompt,
  n_rep,
  debug
)
```

**Arguments**

|               |                                                                                                                                                                                        |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| commit_list   | A list of commit hash codes, branches' names or anything else you can use with git checkout ...                                                                                        |
| cypress_dir   | The directory with tests recorded by Cypress. It can also be a vector of the same size of commit_list                                                                                  |
| tests_pattern | Cypress/shinytest2 files pattern. E.g. 'shinytest2' It can also be a vector of the same size of commit_list. If it is NULL, all the content in cypress_dir/shinytest2_dir will be used |
| app_dir       | The path to the application root                                                                                                                                                       |
| port          | Port to run the app                                                                                                                                                                    |
| use_renv      | In case it is set as TRUE, package will try to apply renv::restore() in all branches. Otherwise, the current loaded list of packages will be used in all branches.                     |
| renv_prompt   | Prompt the user before taking any action?                                                                                                                                              |
| n_rep         | Number of replications desired                                                                                                                                                         |
| debug         | Logical. TRUE to display all the system messages on runtime                                                                                                                            |

**Value**

Return a list with the collected performance times

---

benchmark\_shinytest2    *Run the performance test based on a multiple commits using shinytest2*

---

**Description**

Run the performance test based on a multiple commits using shinytest2

**Usage**

```
benchmark_shinytest2(
  commit_list,
  shinytest2_dir,
  tests_pattern,
  app_dir,
  use_renv,
  renv_prompt,
  n_rep,
  debug
)
```

**Arguments**

|                |                                                                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| commit_list    | A list of commit hash codes, branches' names or anything else you can use with git checkout ...                                                                                  |
| shinytest2_dir | The directory with tests recorded by shinytest2. It can also be a vector of the same size of commit_list                                                                         |
| tests_pattern  | shinytest2 files pattern. E.g. 'performance'. It can also be a vector of the same size of commit_list. If it is NULL, all the content in cypress_dir/shinytest2_dir will be used |
| app_dir        | The path to the application root                                                                                                                                                 |
| use_renv       | In case it is set as TRUE, package will try to apply renv::restore() in all branches. Otherwise, the current loaded list of packages will be used in all branches.               |
| renv_prompt    | Prompt the user before taking any action?                                                                                                                                        |
| n_rep          | Number of replications desired                                                                                                                                                   |
| debug          | Logical. TRUE to display all the system messages on runtime                                                                                                                      |

**Value**

Return a list with the collected performance times

---

|              |                                                                    |
|--------------|--------------------------------------------------------------------|
| load_example | <i>Load an application and instructions to run shiny.benchmark</i> |
|--------------|--------------------------------------------------------------------|

---

**Description**

This function aims to generate a template to be used by shiny.benchmark. It will create the necessary structure on path with some examples of tests using Cypress and shinytest2. Also, a simple application will be added to the folder as well as instructions on how to perform the performance checks. Be aware that a new git repo is need in the selected path.

**Usage**

```
load_example(path, force = FALSE)
```

**Arguments**

|       |                                                                 |
|-------|-----------------------------------------------------------------|
| path  | A character vector of full path name                            |
| force | Create example even if directory does not exist or is not empty |

**Value**

Print on the console instructions to run the example

**Examples**

```
load_example(file.path(tempdir(), "example_destination"), force = TRUE)
```

---

|                      |                                       |
|----------------------|---------------------------------------|
| plot.shiny_benchmark | <i>Plot for shiny_benchmark class</i> |
|----------------------|---------------------------------------|

---

**Description**

Plot for shiny\_benchmark class

**Usage**

```
## S3 method for class 'shiny_benchmark'
plot(x, ...)
```

**Arguments**

|     |                        |
|-----|------------------------|
| x   | shiny_benchmark object |
| ... | Other parameters       |

**Value**

Return a ggplot object that compares different git refs

---

```
print.shiny_benchmark
```

*Print for shiny\_benchmark class*

---

### Description

Print for shiny\_benchmark class

### Usage

```
## S3 method for class 'shiny_benchmark'
print(x, ...)
```

### Arguments

|     |                        |
|-----|------------------------|
| x   | shiny_benchmark object |
| ... | Other parameters       |

### Value

Print on the console information about the shiny\_benchmark object

---

```
run_cypress_ptest
```

*Run the performance test based on a single commit using Cypress*

---

### Description

Run the performance test based on a single commit using Cypress

### Usage

```
run_cypress_ptest(
  commit,
  project_path,
  cypress_dir,
  tests_pattern,
  use_renv,
  renv_prompt,
  n_rep,
  debug
)
```

**Arguments**

|               |                                                                                                                                                                    |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| commit        | A commit hash code or a branch's name                                                                                                                              |
| project_path  | The path to the project with all needed packages installed                                                                                                         |
| cypress_dir   | The directory with tests recorded by Cypress                                                                                                                       |
| tests_pattern | Cypress files pattern. E.g. 'performance'. If it is NULL, all the content will be used                                                                             |
| use_renv      | In case it is set as TRUE, package will try to apply renv::restore() in all branches. Otherwise, the current loaded list of packages will be used in all branches. |
| renv_prompt   | Prompt the user before taking any action?                                                                                                                          |
| n_rep         | Number of replications desired                                                                                                                                     |
| debug         | Logical. TRUE to display all the system messages on runtime                                                                                                        |

**Value**

Return a `data.frame` with the collected performance time

---

run\_shinytest2\_ptest    *Run the performance test based on a single commit using shinytest2*

---

**Description**

Run the performance test based on a single commit using shinytest2

**Usage**

```
run_shinytest2_ptest(
  commit,
  project_path,
  app_dir,
  shinytest2_dir,
  tests_pattern,
  use_renv,
  renv_prompt,
  n_rep,
  debug
)
```

**Arguments**

|                |                                                 |
|----------------|-------------------------------------------------|
| commit         | A commit hash code or a branch's name           |
| project_path   | The path to the project                         |
| app_dir        | The path to the application root                |
| shinytest2_dir | The directory with tests recorded by shinytest2 |

|               |                                                                                                                                                                    |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tests_pattern | shinytest2 files pattern. E.g. 'performance'. If it is NULL, all the content will be used                                                                          |
| use_renv      | In case it is set as TRUE, package will try to apply renv::restore() in all branches. Otherwise, the current loaded list of packages will be used in all branches. |
| renv_prompt   | Prompt the user before taking any action?                                                                                                                          |
| n_rep         | Number of replications desired                                                                                                                                     |
| debug         | Logical. TRUE to display all the system messages on runtime                                                                                                        |

**Value**

Return a data.frame with the collected performance time

---

shiny\_benchmark-class *An object of 'shiny\_benchmark' class*

---

**Description**

An object of 'shiny\_benchmark' class

**Slots**

call Function call  
time Time elapsed  
performance List of measurements (one entry for each commit)

---

summary.shiny\_benchmark  
*Summary for shiny\_benchmark class*

---

**Description**

Summary for shiny\_benchmark class

**Usage**

```
## S3 method for class 'shiny_benchmark'
summary(object, ...)
```

**Arguments**

object shiny\_benchmark object  
... Other parameters

**Value**

Return a data.frame with performance tests' summary statistics

# Index

..., [2-4](#)

`benchmark`, [2](#)

`benchmark_cypress`, [3](#)

`benchmark_shinytest2`, [4](#)

`load_example`, [5](#)

`plot.shiny_benchmark`, [5](#)

`print.shiny_benchmark`, [6](#)

`run_cypress_ptest`, [6](#)

`run_shinytest2_ptest`, [7](#)

`shiny_benchmark-class`, [8](#)

`shiny_benchmark_class`

(`shiny_benchmark-class`), [8](#)

`summary.shiny_benchmark`, [8](#)