Package ‘shiny.benchmark’

January 20, 2023

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

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benchmark

Execute performance tests for a list of commits

Usage

```r
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.
Benchmark Cypress

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

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

```r
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**  
*Load an application and instructions to run shiny.benchmark*

**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**

```r
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**

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

**plot.shiny_benchmark**  
*Plot for shiny_benchmark class*

**Description**

Plot for shiny_benchmark class

**Usage**

```r
## 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**

```r
## 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**

```r
call(run_cypress_ptest(  
  commit,  
  project_path,  
  cypress_dir,  
  tests_pattern,  
  use_renv,  
  renv_prompt,  
  n_rep,  
  debug  
))
```
run_shinytest2_ptest

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

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
<table>
<thead>
<tr>
<th>tests_pattern</th>
<th>shinytest2 files pattern. E.g. 'performance'. If it is NULL, all the content will be used</th>
</tr>
</thead>
<tbody>
<tr>
<td>use_renv</td>
<td>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.</td>
</tr>
<tr>
<td>renv_prompt</td>
<td>Prompt the user before taking any action?</td>
</tr>
<tr>
<td>n_rep</td>
<td>Number of replications desired</td>
</tr>
<tr>
<td>debug</td>
<td>Logical. TRUE to display all the system messages on runtime</td>
</tr>
</tbody>
</table>

**Value**

- Return a data.frame with the collected performance time

---

**shiny_benchmark-class**  
An object of 'shiny_benchmark' class

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**Description**

An object of 'shiny_benchmark' class

**Slots**

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

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**summary.shiny_benchmark**

Summary for shiny_benchmark class

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**Description**

Summary for shiny_benchmark class

**Usage**

```r
## 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
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