

Package ‘rgrind’

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Type Package

Title Gamified Algorithmic and Data Wrangling Challenges for R

Version 0.1.0

Description An in-console, gamified learning and practice engine for R.
Solve algorithmic and data-wrangling challenges directly in the R console, get instant styled feedback with worked explanations, and track your progress locally with a solving streak, attempt history, and an activity heatmap.

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Encoding UTF-8

Imports cli

Config/roxygen2/version 8.1.0

Suggests knitr, rmarkdown, testthat (>= 3.0.0), tibble

Config/testthat/edition 3

URL <https://devwebwacky.github.io/rgrind/>

VignetteBuilder knitr

NeedsCompilation no

Author Uwakmfon Paul [aut, cre]

Maintainer Uwakmfon Paul <uwakmfon31@gmail.com>

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list_challenges	<i>List all available challenge ids</i>
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Description

Returns the ids of every challenge currently registered in the package. Use an id with `run_challenge()` to attempt that challenge.

Usage

```
list_challenges()
```

Value

A character vector of challenge ids.

Examples

```
list_challenges()
```

rg_get_history	<i>Get your full local challenge attempt history</i>
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Description

Returns every attempt you've made across all challenges, including both passes and failures, stored locally on your machine.

Usage

```
rg_get_history()
```

Value

A data frame with columns `challenge_id`, `timestamp`, and `passed`.

Examples

```
old_opt <- options(rgrind.storage_dir = tempdir())
rg_get_history()
options(old_opt)
```

rg_get_streak	<i>Get your current solving streak</i>
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Description

Calculates how many consecutive days (ending today or yesterday) you've passed at least one challenge. A streak is still considered active if you solved something yesterday but haven't yet today.

Usage

```
rg_get_streak()
```

Value

An integer: the current streak length in days.

Examples

```
old_opt <- options(rgrind.storage_dir = tempdir())
rg_get_streak()
options(old_opt)
```

rg_heatmap	<i>Show a 28-day activity heatmap</i>
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Description

Prints a simple ASCII grid showing how many challenges you passed each day over the last 28 days, similar in spirit to GitHub's contribution graph.

Usage

```
rg_heatmap()
```

Value

Invisibly, a character vector of the rendered symbols.

Examples

```
old_opt <- options(rgrind.storage_dir = tempdir())
rg_heatmap()
options(old_opt)
```

rg_reset_history	<i>Clear your local challenge history</i>
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Description

Permanently deletes your locally stored attempt history, including streak data. This cannot be undone.

Usage

```
rg_reset_history()
```

Value

Invisibly, TRUE.

Examples

```
old_opt <- options(rgrind.storage_dir = tempdir())
rg_reset_history()
options(old_opt)
```

rg_stats	<i>Show a summary of your overall rgrind progress</i>
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Description

Prints how many challenges you've solved, your total attempts, and your current and longest solving streaks.

Usage

```
rg_stats()
```

Value

Invisibly, a list with solved, total_challenges, attempts, current_streak, and longest_streak.

Examples

```
old_opt <- options(rgrind.storage_dir = tempdir())
rg_stats()
options(old_opt)
```

run_challenge	<i>Run an rgrind puzzle against your own solution</i>
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Description

Tests a user-submitted function against a challenge's test cases, printing styled pass/fail feedback to the console. On a full pass, shows an explanation of the idiomatic solution and updates your local solving streak. On any failure, shows details for the failed tests and a hint.

Usage

```
run_challenge(challenge_id, user_fun)
```

Arguments

challenge_id	Character. The id of the challenge to run. See list_challenges() for all available ids.
user_fun	Function. Your own solution to test — written and defined in your own R session, then passed in directly.

Value

Invisibly, a list with passed (number of test cases passed) and total (total number of test cases).

Examples

```
old_opt <- options(rgrind.storage_dir = tempdir())
my_solution <- function(x) sum(x[x %% 2 == 0], na.rm = TRUE)
run_challenge("sum_evens", my_solution)
options(old_opt)
```

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