Package 'webex'

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Title Create Interactive Web Exercises in 'R Markdown'

Description Functions for easily creating interactive web pages using
'R Markdown' that students can use in self-guided learning.

URL

Depends R (>= 3.1.2)

Imports jsonlite, rmarkdown, knitr

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LazyData true

RoxygenNote 6.1.1

Suggests testthat

Encoding UTF-8

NeedsCompilation no

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R topics documented:

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fitb   *Create a fill-in-the-blank question*

Description

Create a fill-in-the-blank question

Usage

```
fitb(answer, width = calculated_width, num = FALSE,
  ignore_case = FALSE, tol = NULL, ignore_ws = TRUE, regex = FALSE)
```

Arguments

answer	The correct answer (can be a vector if there is more than one correct answer).
width	Width of the input box in characters. Defaults to the length of the longest answer.
num	Whether the input is numeric, in which case allow for leading zeroes to be omitted.
ignore_case	Whether to ignore case (capitalization).
tol	The tolerance within which numeric answers will be accepted; i.e. if abs(response - true.answer) < tol, the answer is correct (implies num=TRUE).
ignore_ws	Whether to ignore whitespace.
regex	Whether to use regex to match answers (concatenates all answers with '|' before matching).

Details

Writes html code that creates an input box widget. Call this function inline in an RMarkdown document. See the Web Exercises RMarkdown template for examples of its use in RMarkdown.

Examples

```
# What is 2 + 2?
fitb(4, num = TRUE)

# What was the name of the Beatles drummer?
fitb(c("Ringo", "Ringo Starr"), ignore_case = TRUE)

# What is pi to three decimal places?
fitb(pi, num = TRUE, tol = .001)
```

---

hide   *Create button revealing hidden content*

Description

Create button revealing hidden content

Usage

```
hide(button_text = "Solution")
```

Arguments

button_text   Text to appear on the button that reveals the hidden content.

Details

Writes HTML to create a content that is revealed by a button press. Call this function inline in an RMarkdown document. Any content appearing after this call up to an inline call to `unhide()` will only be revealed when the user clicks the button. See the Web Exercises RMarkdown Template for examples.

See Also

unhide

Examples

```
# default behavior is to generate a button that says "Solution"
hide()

# or the button can display custom text
hide("Click here for a hint")
```

---

mcq   *Create a multiple-choice question*

Description

Create a multiple-choice question

Usage

```
mcq(opts)
```

Arguments

opts   Vector of alternatives. The correct answer is the element(s) of this vector named 'answer'.

Details

Writes html code that creates an option box widget, with a single correct answer. Call this function inline in an RMarkdown document. See the Web Exercises RMarkdown template for further examples.

Examples

```
# How many planets orbit closer to the sun than the Earth?
mcq(c(1, answer = 2, 3))

# Which actor played Luke Skywalker in the movie Star Wars?
mcq(c("Alec Guinness", answer = "Mark Hamill", "Harrison Ford"))
```

---

round2   *Round up from .5*

Description

Round up from .5

Usage

```
round2(x, digits = 0)
```

Arguments

x   A numeric string (or number that can be converted to a string).

digits Integer indicating the number of decimal places ('round') or significant digits ('signif') to be used.

Details

Implements rounding using the "round up from .5" rule, which is more conventional than the "round to even" rule implemented by R's built-in round function. This implementation was taken from https://stackoverflow.com/a/12688836.

Examples

```
round2(c(2, 2.5))

# compare to:
round(c(2, 2.5))
```

---

strip_lzero   *Strip leading zero from numeric string*

Description

Strip leading zero from numeric string

Usage

```
strip_lzero(x)
```

Arguments

x   A numeric string (or number that can be converted to a string).

Value

A string with leading zero removed.

Examples

```
strip_lzero("0.05")
```

---

style_widgets   *Change webex widget style*

Description

Change webex widget style

Usage

```
style_widgets(default = "blue", correct = "red")
```

Arguments

default   The colour of the widgets when the correct answer is not filled in (defaults to
                     blue).

correct   The colour of the widgets when the correct answer not filled in (defaults to red).

Details

Call this function inline in an RMarkdown document to change the default and correct colours using
any valid HTML colour word (e.g., red, rgb(255,0,0), hsl(0, 100

Examples

```
# change to green when correct
style_widgets(correct = "green")

# yellow when unfilled, pink when correct
style_widgets("#FFFF00", "#FF3399")
```

---

torf   *Create a true-or-false question*

Description

Create a true-or-false question

Usage

```
torf(answer)
```

Arguments

answer   Logical value TRUE or FALSE, corresponding to the correct answer.

Details

Writes html code that creates an option box widget with TRUE or FALSE as alternatives. Call this function inline in an RMarkdown document. See the Web Exercises RMarkdown template for further examples.

Examples

```
# True or False? 2 + 2 = 4
torf(TRUE)

# True or False? The month of April has 31 days.
torf(FALSE)
```

---

unhide   *End hidden HTML content*

Description

End hidden HTML content

Usage

```
unhide()
```

Details

Call this function inline in an RMarkdown document to mark the end of hidden content (see the Web Exercises RMarkdown Template for examples).

See Also

hide

Examples

```
# just produce the closing </div>
unhide()
```

---

webex_default   *Create default webex document*

Description

This function wraps rmarkdown::html_document to configure compilation to embed the default webex CSS and JavaScript files in the resulting HTML.

Usage

```
webex_default(...)
```

Arguments

...   Additional function arguments to pass to html_document.

Details

Call this function as the output_format argument for the render function when compiling HTML documents from RMarkdown source.

See Also

render, html_document

Examples

```
# copy the webex 'R Markdown' template to a temporary file
## Not run:
my_rmd <- tempfile(fileext = ".Rmd")
rmarkdown::draft(my_rmd, "webex", "webex")

# compile it
rmarkdown::render(my_rmd, webex::webex_default())

# view the result
```

```
browseURL(sub("\\.Rmd$", ".html", my_rmd))

## End(Not run)
```

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