

kable tables

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Contents

Plain kable	1
kableExtra	2

kable comes with knitr

can output table in html, latex, markdown, pandoc

some good reference material

- <https://rdrr.io/cran/knitr/man/kable.html>
- https://cran.r-project.org/web/packages/kableExtra/vignettes/awesome_table_in_html.html

Plain kable

```
kable(iris_head)
```

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3.0	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5.0	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa

rounding

```
kable(iris_head, digits = 0, caption = 'my rounded table')
```

Table 2: my rounded table

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5	4	1	0	setosa
5	3	1	0	setosa
5	3	1	0	setosa
5	3	2	0	setosa
5	4	1	0	setosa
5	4	2	0	setosa

add row.names

by default kable won't display row names if they are set to NULL or are 1:NROW()

```
rownames(iris_head) <- paste0("row", 1:NROW(iris_head))
iris_head
```

```
##      Sepal.Length Sepal.Width Petal.Length Petal.Width Species
## row1          5.1          3.5          1.4          0.2  setosa
## row2          4.9          3.0          1.4          0.2  setosa
## row3          4.7          3.2          1.3          0.2  setosa
## row4          4.6          3.1          1.5          0.2  setosa
## row5          5.0          3.6          1.4          0.2  setosa
## row6          5.4          3.9          1.7          0.4  setosa
```

alignment

```
kable(iris_head, align = 'c', caption = 'my aligned table')
```

Table 3: my aligned table

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
row1	5.1	3.5	1.4	0.2	setosa
row2	4.9	3.0	1.4	0.2	setosa
row3	4.7	3.2	1.3	0.2	setosa
row4	4.6	3.1	1.5	0.2	setosa
row5	5.0	3.6	1.4	0.2	setosa
row6	5.4	3.9	1.7	0.4	setosa

remove row names and change col names

```
kable(iris_head, align = 'rrrrc', row.names = FALSE, col.names = c('col1', 'col2', 'col3', 'col4', 'col5'))
```

col1	col2	col3	col4	col5
5.1	3.5	1.4	0.2	setosa
4.9	3.0	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5.0	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa

kableExtra

By default if you don't specify the output format for kable then pandoc takes care of this, however, pandoc can't handle complex tables so we need to specify the format of the tables. We can either do this with

```
options(knitr.table.format = "html")
```

or I have made a little function that finds out the current document type we're making and

```
get_kable_format <- function(){
  # find out the current document type, if pdf set format as latex, otherwise return html
  doc_type <- rmarkdown::all_output_formats(knitr::current_input())[1]
```

```

if(doc_type == 'pdf_document'){
  return('latex')
} else {
  return('html')
}
}

options(knitr.table.format = get_kable_format())
## If you don't define format here, you'll need put `format = "html"` in every kable function.

```

apply some styling

defaults

```

kable(iris_head) %>%
  kable_styling()

```

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
row1	5.1	3.5	1.4	0.2	setosa
row2	4.9	3.0	1.4	0.2	setosa
row3	4.7	3.2	1.3	0.2	setosa
row4	4.6	3.1	1.5	0.2	setosa
row5	5.0	3.6	1.4	0.2	setosa
row6	5.4	3.9	1.7	0.4	setosa

striped gives a striped appearance and hover highlights on mouseover

```

kable(iris_head) %>%
  kable_styling(bootstrap_options = c("striped", "hover"))

```

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
row1	5.1	3.5	1.4	0.2	setosa
row2	4.9	3.0	1.4	0.2	setosa
row3	4.7	3.2	1.3	0.2	setosa
row4	4.6	3.1	1.5	0.2	setosa
row5	5.0	3.6	1.4	0.2	setosa
row6	5.4	3.9	1.7	0.4	setosa

Position and width

```

kable(iris_head) %>%
  kable_styling(bootstrap_options = "striped", full_width = F, position = "left")

```

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
row1	5.1	3.5	1.4	0.2	setosa
row2	4.9	3.0	1.4	0.2	setosa
row3	4.7	3.2	1.3	0.2	setosa
row4	4.6	3.1	1.5	0.2	setosa
row5	5.0	3.6	1.4	0.2	setosa
row6	5.4	3.9	1.7	0.4	setosa

Grouping rows and columns

```
kable(iris_head) %>%
  kable_styling(bootstrap_options = c("striped")) %>%
  add_header_above(c(" " = 1, "Sepal" = 2, "Petal" = 2, " " = 1)) %>%
  add_header_above(c(" " = 1, "Another Group" = 4, " " = 1)) %>%
  group_rows("Group1", 1, 3) %>%
  group_rows("Group2", 4, 6)
```

	Another Group				Species
	Sepal		Petal		
	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	
Group1					
row1	5.1	3.5	1.4	0.2	setosa
row2	4.9	3.0	1.4	0.2	setosa
row3	4.7	3.2	1.3	0.2	setosa
Group2					
row4	4.6	3.1	1.5	0.2	setosa
row5	5.0	3.6	1.4	0.2	setosa
row6	5.4	3.9	1.7	0.4	setosa

Collapse rows

```
kable(iris_head, align = "c", row.names = FALSE) %>%
  kable_styling(full_width = F) %>%
  column_spec(1, bold=T) %>%
  collapse_rows(columns = 5)
```

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
	3.5	1.4	0.2	setosa
	3.0	1.4	0.2	setosa
5.4	3.2	1.3	0.2	setosa
	3.1	1.5	0.2	setosa
	3.6	1.4	0.2	setosa
	3.9	1.7	0.4	setosa