(혼자만 알고 있기는 아까워서 발표하는)

reactable 패키지 소개

Presentation @Shiny Korea

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Make Table w/ Shiny (Traditional? Way)

- {DT}: An R interface to the DataTables library (Yihui Xie @RStudio)

- {knitr::kable} (Yihui Xie @RStudio)

     <- With respect honor and gratitude. Thank you!!

Make Table w/ Shiny (Alternative Way)

- {flextable} (Gohel) and {huxtable} (Hugh-Jones)

- {gt} (Iannone)

- {formattable} (Ren)

- {rhandsontable} (Owen)

- {pixiedust} (Nutter)

- {stargazer} (Hlavac)

- {xtable} (Dahl)

https://bookdown.org/yihui/rmarkdown-cookbook/table-other.html

Make Table w/ Shiny (Alternative Way)

- {reactable} (Greg Lin)

> Similar to DT, this package also creates interactive tables based on a JavaScript library. Frankly speaking, it looks better than DT in several aspects in my eyes (such as row grouping and aggregation, and embedding HTML widgets). Had reactable existed in 2015, I would not have developed DT. That said, reactable does not contain all the features of DT, so you may read its documentation and see which one fits your purpose better

https://bookdown.org/yihui/rmarkdown-cookbook/table-other.html

What is reactable??

https://glin.github.io/reactable/

Interactive data tables for R, based on the React Table library and made with reactR.

https://github.com/tannerlinsley/react-table

https://github.com/react-R/reactR

Browser Support

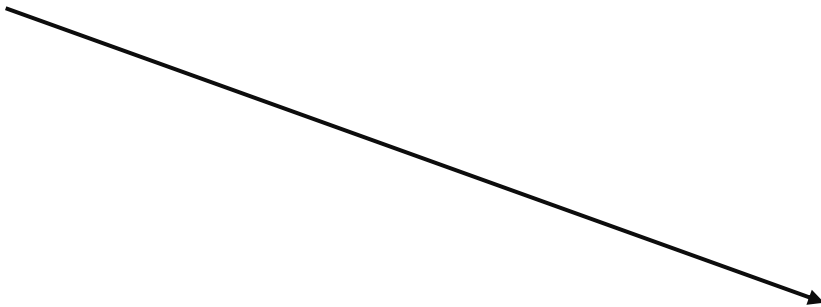| IE / Edge	Firefox	Chrome	Safari	Opera
IE11, Edge	last 2 versions	last 2 versions	last 2 versions	last 2 versions

License

MIT

MIT 라이선스(MIT License)는 미국 매사추세츠 공과대학교(MIT)에서 해당 대학의 소프트웨어 공학도들을 돕기 위해 개발한 라이선스다. MIT 라이선스를 따르는 소프트웨어를 개조한 제품을 반드시 오픈 소스로 배포해야 한다는 규정이 없으며 GNU 일반 공중 라이선스의 엄격함을 피하려는 사용자들에게 인기가 있다.

Features

- Sorting, filtering, pagination

- Grouping and aggregation

- Built-in column formatting

- Custom rendering via R or JavaScript — use Shiny HTML tags and HTML widgets in tables

- Expandable rows and nested tables

- Conditional styling

- <u>Works seamlessly within R Markdown documents and Shiny apps</u>

Installation

You can install reactable from CRAN with:

```
install.packages("reactable")
```

Or install the development version from GitHub with:

```
# install.packages("devtools")
devtools::install_github("glin/reactable")
```

Demos

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
4.9	3.1	1.5	0.1	setosa
5.4	3.7	1.5	0.2	setosa
4.8	3.4	1.6	0.2	setosa
4.8	3	1.4	0.1	setosa
4.3	3	1.1	0.1	setosa
5.8	4	1.2	0.2	setosa
5.7	4.4	1.5	0.4	setosa
5.4	3.9	1.3	0.4	setosa
5.1	3.5	1.4	0.3	setosa
5.7	3.8	1.7	0.3	setosa

1–10 of 20 rows   Previous 1 2 Next

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1920	40.6	40.8	44.4	46.7	54.1	58.5	57.7	56.4	54.3	50.5	42.9	39.8
1921	44.2	39.8	45.1	47.0	54.1	58.7	66.3	59.9	57.0	54.2	39.7	42.8
1922	37.5	38.7	39.5	42.1	55.7	57.8	56.8	54.3	54.3	47.1	41.8	41.7
1923	41.8	40.1	42.9	45.8	49.2	52.7	64.2	59.6	54.4	49.2	36.3	37.6
1924	39.3	37.5	38.3	45.5	53.2	57.7	60.8	58.2	56.4	49.8	44.4	43.6
1925	40.0	40.5	40.8	45.1	53.8	59.4	63.5	61.0	53.0	50.0	38.1	36.3
1926	39.2	43.4	43.4	48.9	50.6	56.8	62.5	62.0	57.5	46.7	41.6	39.8
1927	39.4	38.5	45.3	47.1	51.7	55.0	60.4	60.5	54.7	50.3	42.3	35.2
1928	40.8	41.1	42.8	47.3	50.9	56.4	62.2	60.5	55.4	50.2	43.0	37.3
1929	34.8	31.3	41.0	43.9	53.1	56.9	62.5	60.3	59.8	49.2	42.9	41.9

1–10 of 20 rows   Previous 1 2 Next

Company	Change in Profit
Company01	20%
Company02	68%
Company03	92%
Company04	28%
Company05	10%
Company06	−70%
Company07	−53%
Company08	−81%
Company09	−96%
Company10	−11%

Demos

Global Top 50

Filter tracks

#		TITLE		ARTIST	DAILY PLAYS
1	–	Blinding Lights		The Weeknd	5,534,594
2	–	ROCKSTAR (feat. Roddy Ricch)	EXPLICIT	DaBaby, Roddy Ricch	4,943,716
3	▲	Roses - Imanbek Remix	EXPLICIT	SAINt JHN, Imanbek	4,818,776
4	▼	Toosie Slide	EXPLICIT	Drake	4,257,351
5	●	GOOBA	EXPLICIT	6ix9ine	4,182,378
6	●	THE SCOTTS	EXPLICIT	THE SCOTTS, Travis Scott, Kid...	4,034,684
7	▲	Stuck with U (with Justin Bieber)		Ariana Grande, Justin Bieber	4,004,349
8	▲	death bed (coffee for your head) (feat. beabadoobee)		Powfu, beabadoobee	3,940,214
9	▲	Don't Start Now		Dua Lipa	3,483,227
10	▼	Dance Monkey		Tones And I	3,146,434

1–10 of 50 tracks   ‹ 1 of 5 ›

Raptors vs. Warriors: Jun 5, 2019

	Q1	Q2	Q3	Q4	Final
Toronto Raptors 2-1	36	24	36	27	123
Golden State Warriors 1-2	29	23	31	26	109

Toronto Raptors

PLAYER	MIN	FG	FG%	3P	3P%	FT	FT%	ORB	DRB	REB	AST	STL	BLK	TO	PF	PTS	+/-
Kawhi Leonard F	38:25	9-17	52.9%	2-6	33.3%	10-11	90.9%	2	5	7	6	2	2	4	3	30	+6
Kyle Lowry G	43:22	8-16	50%	5-9	55.6%	2-2	100%	0	4	4	9	1	1	3	3	23	+14
Danny Green G	27:12	6-10	60%	6-10	60%	0-0	0%	0	5	5	1	1	1	1	5	18	+11
Pascal Siakam F	38:40	8-16	50%	0-3	0%	2-2	100%	1	8	9	6	0	0	2	0	18	+22
Marc Gasol C	26:10	6-11	54.5%	1-4	25%	4-4	100%	0	7	7	4	0	0	2	4	17	+14
Fred VanVleet	33:19	4-8	50%	3-6	50%	0-0	0%	1	2	3	2	3	0	0	3	11	+4
Serge Ibaka	21:50	2-4	50%	0-0	0%	2-2	100%	1	4	5	1	2	6	2	4	6	+0
Malcolm Miller	0:52	0-0	0%	0-0	0%	0-0	0%	0	0	0	0	0	0	0	0	0	+2
Jeremy Lin	0:52	0-0	0%	0-0	0%	0-0	0%	0	0	0	0	0	0	0	0	0	+2
Jodie Meeks	0:52	0-0	0%	0-0	0%	0-0	0%	0	0	0	0	0	0	0	0	0	+2
Norman Powell	6:13	0-0	0%	0-0	0%	0-0	0%	0	0	0	0	0	0	0	0	0	-2
Patrick McCaw	2:13	0-0	0%	0-0	0%	0-0	0%	0	0	0	1	0	0	0	0	0	-5
OG Anunoby	DNP																
Totals	240:00	43-82	52.4%	17-38	44.7%	20-21	95.2%	5	35	40	30	9	10	14	22	123	+14

Golden State Warriors

PLAYER	MIN	FG	FG%	3P	3P%	FT	FT%	ORB	DRB	REB	AST	STL	BLK	TO	PF	PTS	+/-
Stephen Curry G	43:15	14-31	45.2%	6-14	42.9%	13-14	92.9%	2	6	8	7	2	0	3	1	47	-8
Draymond Green F	40:36	6-14	42.9%	2-6	33.3%	3-3	100%	1	6	7	4	2	0	4	4	17	-10
Andre Iguodala F	30:38	4-8	50%	2-6	33.3%	1-2	50%	2	4	6	3	1	0	0	0	11	-14
Quinn Cook	26:38	4-9	44.4%	0-2	0%	1-1	100%	0	1	1	2	1	0	2	2	9	-8
Jonas Jerebko	9:51	1-6	16.7%	1-3	33.3%	3-4	75%	2	0	2	1	0	0	1	1	6	+0
Andrew Bogut	21:36	3-4	75%	0-0	0%	0-0	0%	3	4	7	3	1	1	1	3	6	+0
Shaun Livingston G	17:20	1-4	25%	0-0	0%	2-2	100%	1	1	2	2	0	0	0	2	4	-14
DeMarcus Cousins C	19:24	1-7	14.3%	0-1	0%	2-3	66.7%	0	3	3	2	1	0	3	2	4	-12
Alfonzo McKinnie	18:05	1-4	25%	1-3	33.3%	0-1	0%	1	2	3	1	0	0	1	4	3	+0
Jordan Bell	9:23	1-1	100%	0-0	0%	0-0	0%	1	1	2	0	2	0	2	2	2	-2
Damian Jones	1:37	0-0	0%	0-0	0%	0-0	0%	0	0	0	0	0	0	0	0	0	-1
Jacob Evans	1:37	0-3	0%	0-1	0%	0-0	0%	0	0	0	0	0	0	0	0	0	-1
Klay Thompson	DNP																
Totals	240:00	36-91	39.6%	12-36	33.3%	25-30	83.3%	13	28	41	25	8	3	14	21	109	-14

Demos

Candidates whose followers are loyal only to them

Share of each 2020 candidate's followers who don't follow any other candidates

ACCOUNT	FOLLOWERS		EXCLUSIVE FOLLOWERS ↓	
@marwilliamson	2,610,335		74.8%	
@BernieSanders	9,254,423		63.2	
@Hickenlooper	144,816		56.3	
@CoryBooker	4,246,252		52.5	
@JoeBiden	3,558,333		43.8	
@AndrewYang	267,897		43.4	
@TulsiGabbard	349,443		34.7	
@BetoORourke	1,424,745		26.5	
@amyklobuchar	692,985		24.0	
@PeteButtigieg	1,033,834		23.7	
@SenGillibrand	1,410,303		23.3	
@KamalaHarris	2,640,072		22.3	
@JulianCastro	212,582		21.4	
@sethmoulton	138,450		20.1	
@JayInslee	51,504		19.0	
@ewarren	2,486,101		16.4	
@TimRyan	20,080		15.6	
@JohnDelaney	20,266		12.9	
@MichaelBennet	21,053		11.7	
@ericswalwell	84,415		9.2	

2019 Women's World Cup Predictions

Soccer Power Index (SPI) ratings and chances of advancing for every team

TEAM	GROUP	SPI	Team Rating OFF.	Team Rating DEF.	Chance of Finishing Group Stage In ... 1ST PLACE	Chance of Finishing Group Stage In ... 2ND PLACE	Chance of Finishing Group Stage In ... 3RD PLACE	MAKE ROUND OF 16	MAKE QTR-FINALS	MAKE SEMIFINALS	MAKE FINAL	WIN WORLD CUP
USA 6 pts.	F	98.3	5.5	0.6	83%	17%	–	✓	78%	47%	35%	24%
France 6 pts.	A	96.3	4.3	0.5	>99%	<1%	<1%	✓	78%	42%	30%	19%
Germany 6 pts.	B	93.8	4.0	0.7	98%	2%	–	✓	89%	48%	28%	12%
Canada 6 pts.	E	93.5	3.7	0.6	39%	61%	–	✓	59%	36%	20%	9%
England 6 pts.	D	91.9	3.5	0.6	71%	29%	–	✓	69%	43%	16%	8%
Netherlands 6 pts.	E	92.7	3.9	0.7	61%	39%	–	✓	59%	37%	19%	8%
Australia 3 pts.	C	92.8	4.2	0.9	13%	54%	34%	>99%	54%	26%	10%	5%
Sweden 6 pts.	F	88.4	3.0	0.6	17%	83%	–	✓	47%	20%	10%	4%
Japan 4 pts.	D	90.3	3.8	0.9	29%	63%	8%	✓	46%	27%	9%	4%
Brazil 3 pts.	C	89.5	3.6	0.9	26%	22%	52%	>99%	43%	17%	7%	3%
Spain 3 pts.	B	86.5	3.1	0.8	1%	70%	29%	>99%	31%	11%	5%	2%
Norway 3 pts.	A	83.7	3.0	0.9	<1%	94%	5%	>99%	44%	18%	4%	2%
China 3 pts.	B	82.7	2.7	0.8	<1%	29%	70%	93%	34%	11%	3%	<1%
Italy 6 pts.	C	76.1	3.0	1.3	61%	24%	15%	✓	37%	9%	2%	<1%
New Zealand 0 pts.	E	77.6	2.8	1.2	–	–	48%	40%	10%	4%	<1%	<1%
Nigeria 3 pts.	A	71.7	2.4	1.1	<1%	5%	91%	50%	13%	3%	<1%	<1%
Cameroon 0 pts.	E	65.8	2.1	1.2	–	–	52%	23%	4%	1%	<1%	<1%
South Korea 0 pts.	A	76.4	2.7	1.1	–	<1%	4%	2%	<1%	<1%	<1%	<1%
Scotland 0 pts.	D	54.0	2.0	1.7	–	–	53%	52%	3%	<1%	<1%	<1%
Argentina 1 pts.	D	39.2	1.5	1.9	–	8%	40%	25%	<1%	<1%	<1%	<1%
Jamaica 0 pts.	C	53.5	2.5	2.1	–	–	<1%	<1%	<1%	–	–	–
Thailand 0 pts.	F	40.7	2.0	2.4	–	–	34%	2%	<1%	<1%	–	–
South Africa 0 pts.	B	56.7	1.7	1.3	–	–	<1%	<1%	<1%	<1%	<1%	–
Chile 0 pts.	F	46.5	1.8	1.8	–	–	66%	15%	<1%	<1%	<1%	–

Basic Usage

To create a data table, use `reactable()` on a data frame or matrix. The table will be sortable and paginated by default:

```
library(reactable)

reactable(iris)
```

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa
4.6	3.4	1.4	0.3	setosa
5	3.4	1.5	0.2	setosa
4.4	2.9	1.4	0.2	setosa
4.9	3.1	1.5	0.1	setosa

1–10 of 150 rows   Previous **1** 2 3 4 5 ... 15 Next

You can embed tables in **R Markdown** documents:

````
```{r}
library(reactable)

reactable(iris)
```
````

Or use them in **Shiny** applications:

```r
library(shiny)
library(reactable)

ui <- fluidPage(
  reactableOutput("table")
)

server <- function(input, output) {
  output$table <- renderReactable({
    reactable(iris)
  })
}

shinyApp(ui, server)
```

colDef()

Column definitions

Columns can be customized by providing a named list of column definitions created by `colDef()` to `columns`:

```r
reactable(iris[1:5, ], columns = list(
  Sepal.Length = colDef(name = "Sepal Length"),
  Sepal.Width = colDef(name = "Sepal Width"),
  Species = colDef(align = "center")
))
```

Sepal Length	Sepal Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5	3.6	1.4	0.2	setosa

defaultColDef()

For convenience, you can also specify a default `colDef()` to use for all columns in `defaultColDef`:

```
reactable(
  iris[1:5, ],
  defaultColDef = colDef(
    header = function(value) gsub(".", " ", value, fixed = TRUE),
    cell = function(value) format(value, nsmall = 1),
    align = "center",
    minWidth = 70,
    headerStyle = list(background = "#f7f7f8")
  ),
  columns = list(
    Species = colDef(minWidth = 140)  # overrides the default
  ),
  bordered = TRUE,
  highlight = TRUE
)
```

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

Sorting

Tables are sortable by default. You can sort on a column by clicking on its header, or sort on multiple columns by holding the shift key while sorting.

Default sort order

Tables are sorted in ascending order first by default. To customize the sort order, set `defaultSortOrder` on a table or column to either `"asc"` (ascending) or `"desc"` (descending):

```
reactable(
  iris[48:52, ],
  defaultSortOrder = "desc",
  columns = list(
    Species = colDef(defaultSortOrder = "asc")
  )
)
```

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
4.6	3.2	1.4	0.2	setosa
5.3	3.7	1.5	0.2	setosa
5	3.3	1.4	0.2	setosa
7	3.2	4.7	1.4	versicolor
6.4	3.2	4.5	1.5	versicolor

https://glin.github.io/reactable/articles/examples.html

떠먹여 주는 샤이니 데모

https://glin.github.io/reactable/articles/shiny-demo.html

우시장플러스+

Thank you

Q&A