R package `rrtable`

Reproducible Research with a Table of R codes

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2021-11-17 09:50:20

```
require(moonBook)
require(rrtable)
require(ggplot2)
require(webrSub)
require(ggthemes)
```

Introduction

If you are a data scientist or researcher, you will certainly be interested in reproducible research. R package `rrtable` makes it possible to make reports with HTML, LaTex, MS word or MS Powerpoint formats from a table of R codes.

Package Installation

You can install R package `rrtable` with the following command.

```
if(!require(devtools)){ install.packages("devtools") }
devtools::install_github("cardiomoon/rrtable")
```

Package Loading

You can load the `rrtable` package with the following R command.

```
require(rrtable)
```

Sample Data

Sample data sampleData3 is included in rrtable package. You can see the sampleData3 by folllowing R command.

```
str(sampleData3)
```

```
'data.frame':   24 obs. of  5 variables:
 $ type  : chr  "title" "subtitle" "author" "text" ...
 $ title : chr  "" "" "" "Introduction" ...
 $ text  : chr  "R package `rrtable`" "Reproducible Research with a Table of R codes" "Keon-Woong Moon"
 $ code  : chr  "" "" "" "" ...
 $ option: chr  "" "" "" "" ...
```

Paragraph

You can make a paragraph with this data

```
df2flextable2( sampleData3 ,vanilla= FALSE )
```

type	title	text	
title		R package 'rrtable'	
subtitle		Reproducible Research with a Table of R codes	
author		Keon-Woong Moon	
text	Introduction	If you are a data scientist or researcher, you will certainly be interested in reproducible research. R package 'rrtable' makes it possible to make reports with HTML, LaTex, MS word or MS Powerpoint formats from a table of R codes.	
header2	Package Installation	You can install R package 'rrtable' with the following command.	if(!requi devtools
header2	Package Loading	You can load the 'rrtable' package with the following R command.	require(
header2	Sample Data	Sample data sampleData3 is included in rrtable package. You can see the sampleData3 by folllowing R command.	str(samp
Data	Paragraph	You can make a paragraph with this data	sampleD
mytable	mytable object	You can add mytable object with the following R code.	mytable
plot	Plot	You can insert a plot into your document.	plot(Sep
ggplot	ggplot	You can insert a ggplot into a document	ggplot(i geom_p
Rcode	R code	You can insert the result of R code. For example, you can insert the result of regression analysis.	fit=lm(r summar
2ggplots	Two ggplots	You can insert two parallel ggplots with the following code.	ggplot(i ggplot(i geom_p
2plots	Two plots	You can insert two parallel plots with the following code.	hist(rno plot(1:1
header2	HTML Report	You can get report with HTML format(this file) by following R command.	data2HT
header2	MS word document	You can get a report with MS word format.	data2do
		You can download sample data: [sample-Data3.docx](https://github.com/cardiomoon/rrtable/raw/master/ - view with [office web viewer](https://view.officeapps.live.com/op/view.aspx?src=https:/	data2do
		You can download sample data: [sample-Data2.docx](https://github.com/cardiomoon/rrtable/raw/ - view with [office web viewer](https://view.officeapps.live.com/op/view.aspx?src=	
header2	MS powerpoint document	You can get a report with MS word format.	data2pp

type	title	text	
		You can download sample data: [sample-Data3.pptx](https://github.com/cardiomoon/rrtable/raw/ - view with [office web viewer](https://view.officeapps.live.com/op/view.aspx?src	data2pp
		You can download sample data: [sample-Data2.pptx](https://github.com/cardiomoon/rrtable/raw/master/ - view with [office web viewer](https://view.officeapps.live.com/op/view.aspx?src=https:/	
header2	pdf document	You can get a report with pdf format.	data2pd
		You can download sample data: [sample-Data3.pdf](https://github.com/cardiomoon/rrtable/raw/master/i	data2pd
		You can download sample data: [sample-Data2.pdf](https://github.com/cardiomoon/rrtable/raw/r	

mytable object

You can add mytable object with the following R code.

```
mytable2flextable( mytable(Dx~.,data=acs) ,vanilla= FALSE )
```

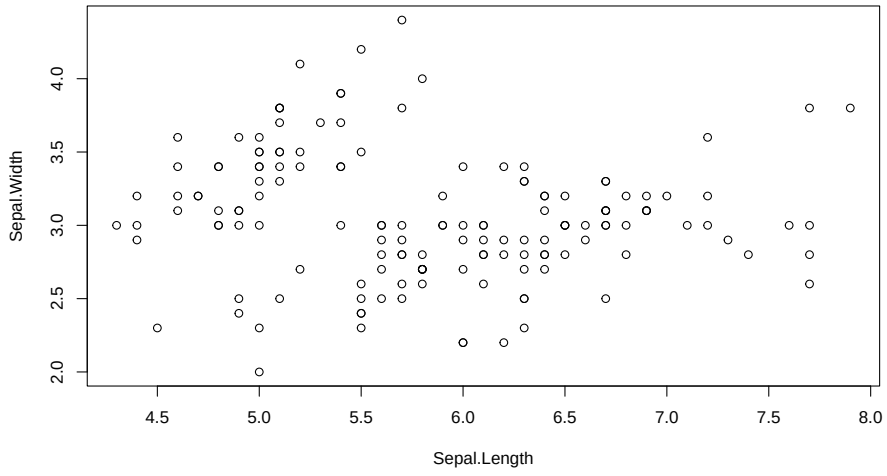
Dx	NSTEMI (N=153)	STEMI (N=304)	Unstable.Angina (N=400)	p
age	64.3 ± 12.3	62.1 ± 12.1	63.8 ± 11.0	0.073
sex				
- Female	50 (32.7%)	84 (27.6%)	153 (38.2%)	0.012
- Male	103 (67.3%)	220 (72.4%)	247 (61.8%)	
cardiogenicShock				
- No	149 (97.4%)	256 (84.2%)	400 (100.0%)	< 0.001
- Yes	4 (2.6%)	48 (15.8%)	0 (0.0%)	
entry				
- Femoral	58 (37.9%)	133 (43.8%)	121 (30.2%)	0.001
- Radial	95 (62.1%)	171 (56.2%)	279 (69.8%)	
EF	55.0 ± 9.3	52.4 ± 9.5	59.2 ± 8.7	< 0.001
height	163.3 ± 8.2	165.1 ± 8.2	161.7 ± 9.7	< 0.001
weight	64.3 ± 10.2	65.7 ± 11.6	64.5 ± 11.6	0.361
BMI	24.1 ± 3.2	24.0 ± 3.3	24.6 ± 3.4	0.064
obesity				
- No	106 (69.3%)	209 (68.8%)	252 (63.0%)	0.186
- Yes	47 (30.7%)	95 (31.2%)	148 (37.0%)	
TC	193.7 ± 53.6	183.2 ± 43.4	183.5 ± 48.3	0.057

Dx	NSTEMI (N=153)	STEMI (N=304)	Unstable.Angina (N=400)	p
LDLC	126.1 ± 44.7	116.7 ± 39.5	112.9 ± 40.4	0.004
HDLC	38.9 ± 11.9	38.5 ± 11.0	37.8 ± 10.9	0.501
TG	130.1 ± 88.5	106.5 ± 72.0	137.4 ± 101.6	< 0.001
DM				
- No	96 (62.7%)	208 (68.4%)	249 (62.2%)	0.209
- Yes	57 (37.3%)	96 (31.6%)	151 (37.8%)	
HBP				
- No	62 (40.5%)	150 (49.3%)	144 (36.0%)	0.002
- Yes	91 (59.5%)	154 (50.7%)	256 (64.0%)	
smoking				
- Ex-smoker	42 (27.5%)	66 (21.7%)	96 (24.0%)	< 0.001
- Never	50 (32.7%)	97 (31.9%)	185 (46.2%)	
- Smoker	61 (39.9%)	141 (46.4%)	119 (29.8%)	

Plot

You can insert a plot into your document.

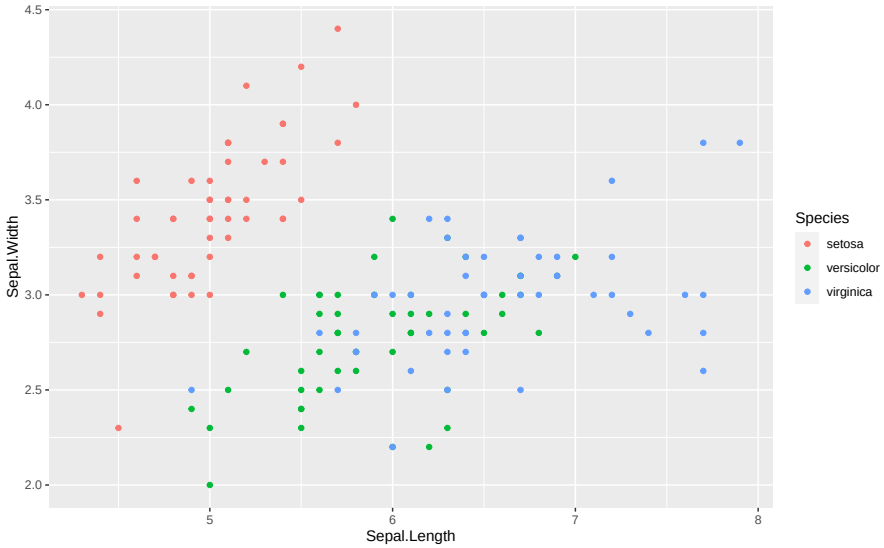
```
plot(Sepal.Width~Sepal.Length,data=iris)
```



ggplot

You can insert a ggplot into a document

```
ggplot(iris,aes(x=Sepal.Length,y=Sepal.Width,color=Species))+ geom_point()
```



R code

You can insert the result of R code. For example, you can insert the result of regression analysis.

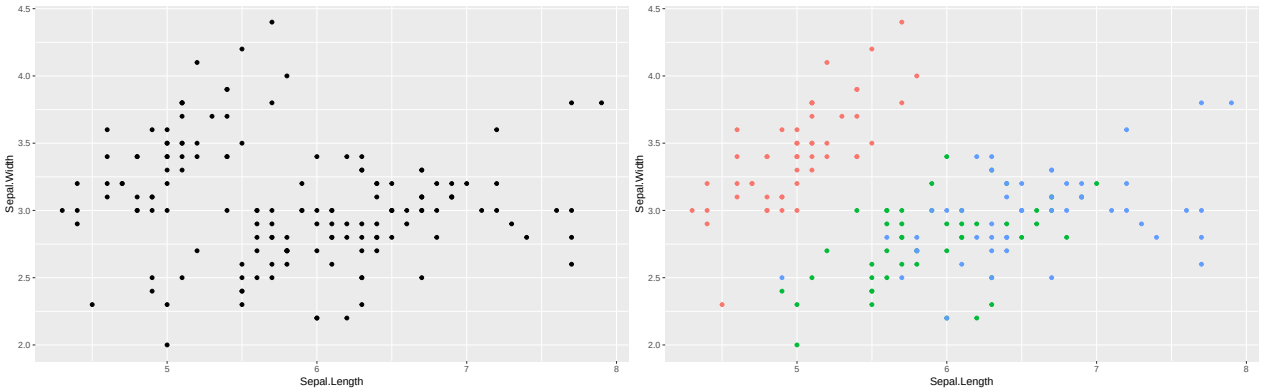
```
fit=lm(mpg~wt*hp,data=mtcars)
summary(fit)
```

```
Call:
lm(formula = mpg ~ wt * hp, data = mtcars)

Residuals:
    Min      1Q  Median      3Q     Max
-3.0632 -1.6491 -0.7362  1.4211  4.5513

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) 49.80842    3.60516  13.816 5.01e-14 ***
wt          -8.21662    1.26971  -6.471 5.20e-07 ***
hp          -0.12010    0.02470  -4.863 4.04e-05 ***
wt:hp        0.02785    0.00742   3.753 0.000811 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 2.153 on 28 degrees of freedom
Multiple R-squared:  0.8848,    Adjusted R-squared:  0.8724
F-statistic: 71.66 on 3 and 28 DF,  p-value: 2.981e-13
```

Two ggplots

You can insert two parallel ggplots with the following code.

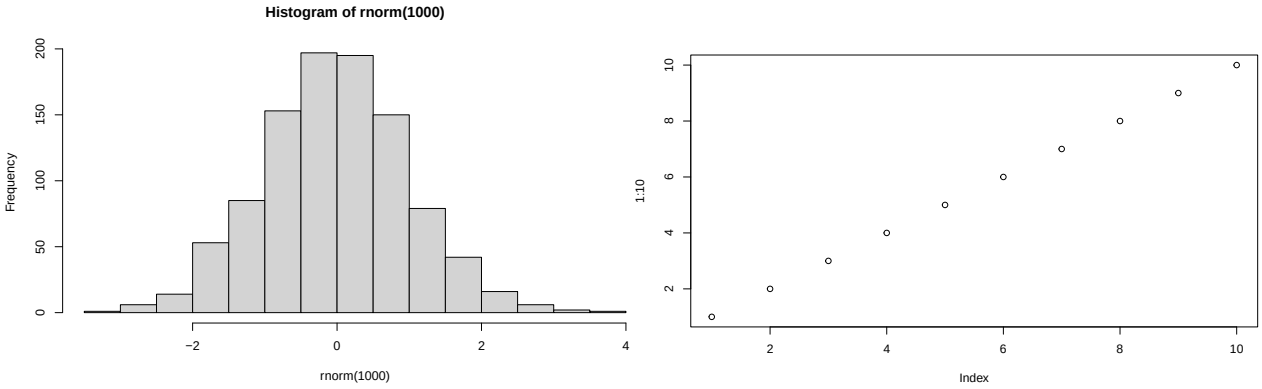
```
ggplot(iris,aes(Sepal.Length,Sepal.Width))+geom_point()
ggplot(iris,aes(Sepal.Length,Sepal.Width,colour=Species))+ geom_point()+guides(colour=FALSE)
```



Two plots

You can insert two parallel plots with the following code.

```
hist(rnorm(1000))
plot(1:10)
```



HTML Report

You can get report with HTML format(this file) by following R command.

```
data2HTML(sampleData3)
```

MS word document

You can get a report with MS word format.

```
data2docx(sampleData3)
```

You can download sample data: sampleData3.docx - view with office web viewer

```
data2docx(sampleData2)
```

You can download sample data: sampleData2.docx - view with office web viewer

MS powerpoint document

You can get a report with MS word format.

```
data2pptx(sampleData3)
```

You can download sample data: sampleData3.pptx - view with office web viewer

```
data2pptx(sampleData2)
```

You can download sample data: sampleData2.pptx - view with office web viewer

pdf document

You can get a report with pdf format.

```
data2pdf(sampleData3)
```

You can download sample data: sampleData3.pdf

```
data2pdf(sampleData2)
```

You can download sample data: sampleData2.pdf