

Reproducible Research with Table Data

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```
require(moonBook)
require(ztable)
require(rrtable)
require(ggplot2)
options(ztable.type='latex')
```

sampleData2

```
ztable2( sampleData2 )
```

type	title	code
title	title	Reproducible Research with Table Data
author	author	Keon-Woong Moon
data	sampleData2	sampleData2
mytable	mytable	mytable(sex~,data=acs)
data	head(iris)	head(iris)
plot	plot	plot(iris)
ggplot	ggplot	ggplot(iris,aes(x=Sepal.Length,y=Sepal.Width,color=Species))+geom_point()
Rcode	Regression	fit=lm(mpg~wt*hp,data=mtcars)
	Analysis	summary(fit)
Rcode	Summary	summary(mtcars)
text	Text	This document is an example of reproducible research using webr package. The home page of this project is github.com/cardiomoon/webr .
table	table	df2flectable(head(mtcars))
2ggplots	Two ggplots	ggplot(iris,aes(Sepal.Length,Sepal.Width))+geom_point() ggplot(iris,aes(Sepal.Length,Sepal.Width,colour=Species)) + geom_point() + guides(colour=FALSE)
2plots	Two plots	hist(rnorm(1000)) plot(1:10)

mytable

```
result= mytable(sex~.,data=acs)
print(ztable(result,longtable=TRUE),type='latex')
```

	Female (N=287)	Male (N=570)	P
age	68.7 ± 10.7	60.6 ± 11.2	0.000
cardiogenicShock			0.136
No	275 (95.8%)	530 (93.0%)	
Yes	12 (4.2%)	40 (7.0%)	
entry			0.035
Femoral	119 (41.5%)	193 (33.9%)	
Radial	168 (58.5%)	377 (66.1%)	
Dx			0.012
NSTEMI	50 (17.4%)	103 (18.1%)	
STEMI	84 (29.3%)	220 (38.6%)	
Unstable Angina	153 (53.3%)	247 (43.3%)	
EF	56.3 ± 10.1	55.6 ± 9.4	0.387
height	153.8 ± 6.2	167.9 ± 6.1	0.000
weight	57.2 ± 9.3	68.7 ± 10.3	0.000
BMI	24.2 ± 3.6	24.3 ± 3.2	0.611
obesity			0.580
No	194 (67.6%)	373 (65.4%)	
Yes	93 (32.4%)	197 (34.6%)	
TC	188.9 ± 51.1	183.3 ± 45.9	0.124
LDLC	117.8 ± 41.2	116.0 ± 41.1	0.561
HDLC	39.0 ± 11.5	37.8 ± 10.9	0.145
TG	119.9 ± 76.2	127.9 ± 97.3	0.195
DM			0.077
No	173 (60.3%)	380 (66.7%)	
Yes	114 (39.7%)	190 (33.3%)	
HBP			0.000
No	83 (28.9%)	273 (47.9%)	
Yes	204 (71.1%)	297 (52.1%)	
smoking			0.000
Ex-smoker	49 (17.1%)	155 (27.2%)	
Never	209 (72.8%)	123 (21.6%)	
Smoker	29 (10.1%)	292 (51.2%)	

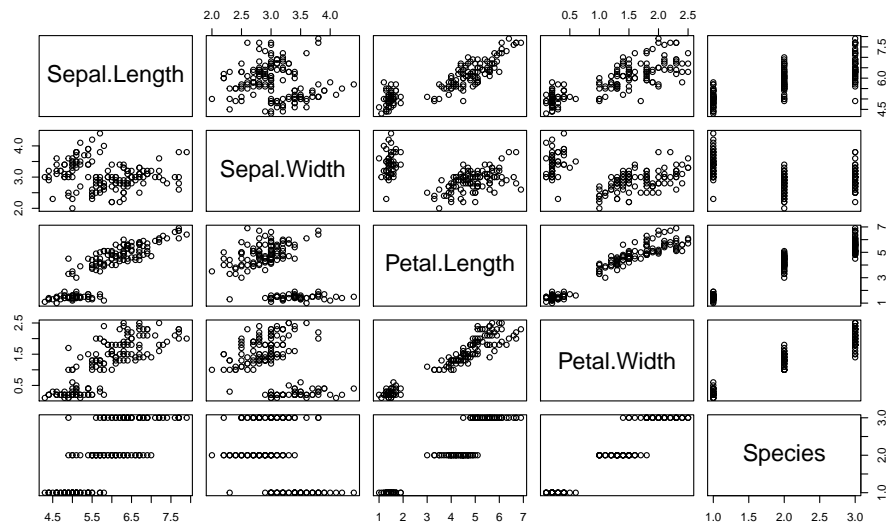
head(iris)

```
ztable2( head(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

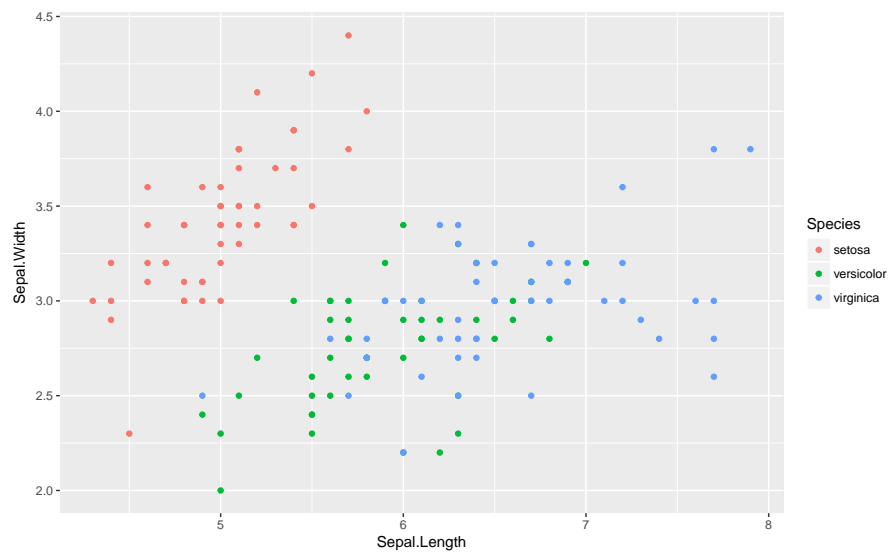
plot

```
plot(iris)
```



ggplot

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



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

Summary

```
summary(mtcars)
```

mpg	cyl	disp	hp
Min. :10.40	Min. :4.000	Min. : 71.1	Min. : 52.0
1st Qu.:15.43	1st Qu.:4.000	1st Qu.:120.8	1st Qu.: 96.5
Median :19.20	Median :6.000	Median :196.3	Median :123.0
Mean :20.09	Mean :6.188	Mean :230.7	Mean :146.7
3rd Qu.:22.80	3rd Qu.:8.000	3rd Qu.:326.0	3rd Qu.:180.0
Max. :33.90	Max. :8.000	Max. :472.0	Max. :335.0
drat	wt	qsec	vs
Min. :2.760	Min. :1.513	Min. :14.50	Min. :0.0000
1st Qu.:3.080	1st Qu.:2.581	1st Qu.:16.89	1st Qu.:0.0000
Median :3.695	Median :3.325	Median :17.71	Median :0.0000
Mean :3.597	Mean :3.217	Mean :17.85	Mean :0.4375
3rd Qu.:3.920	3rd Qu.:3.610	3rd Qu.:18.90	3rd Qu.:1.0000
Max. :4.930	Max. :5.424	Max. :22.90	Max. :1.0000
am	gear	carb	
Min. :0.0000	Min. :3.000	Min. :1.000	
1st Qu.:0.0000	1st Qu.:3.000	1st Qu.:2.000	
Median :0.0000	Median :4.000	Median :2.000	
Mean :0.4062	Mean :3.688	Mean :2.812	
3rd Qu.:1.0000	3rd Qu.:4.000	3rd Qu.:4.000	
Max. :1.0000	Max. :5.000	Max. :8.000	

Text

This document is an example of reproducible research using webr package. The home page of this project is github.com/cardiomoon/webr.

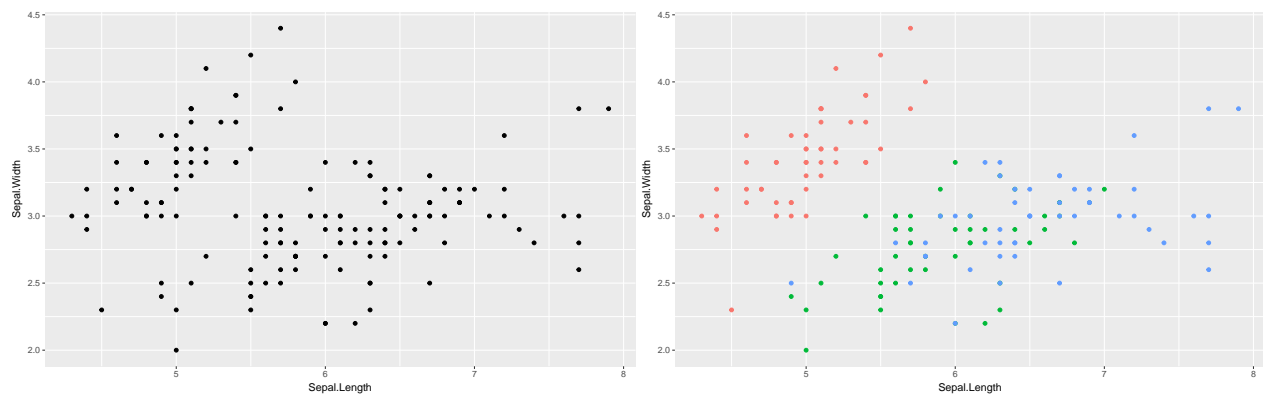
table

```
ztable2(head(mtcars))
```

mpg	cyl	displacement	horsepower	drat	wt	qsec	vs	am	gear	carb
21	6	160	110	3.9	2.62	16.46	0	1	4	4
21	6	160	110	3.9	2.875	17.02	0	1	4	4
22.8	4	108	93	3.85	2.32	18.61	1	1	4	1
21.4	6	258	110	3.08	3.215	19.44	1	0	3	1
18.7	8	360	175	3.15	3.44	17.02	0	0	3	2
18.1	6	225	105	2.76	3.46	20.22	1	0	3	1

Two ggplots

```
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

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

