Reproducible Research with Table Data

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

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%)	

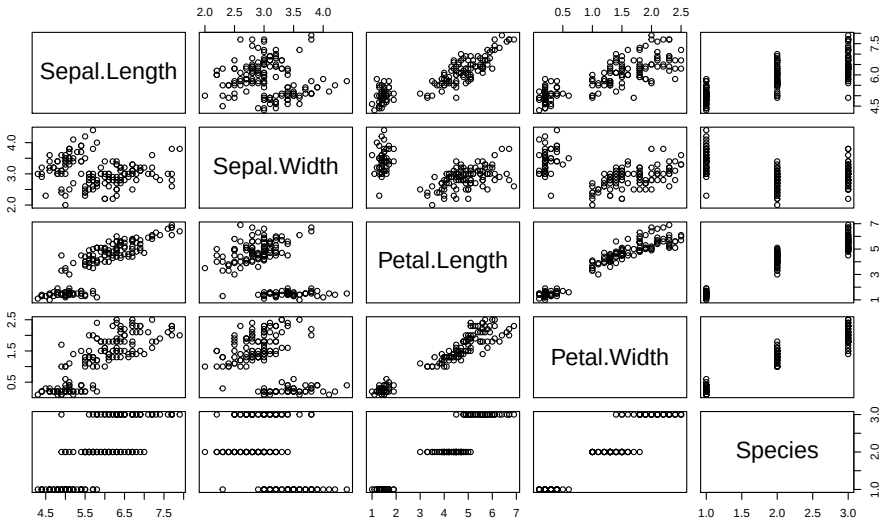
head(iris)

```
print(ztable( head(iris) ,longtable=TRUE),type='latex')
```

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
1	5.10	3.50	1.40	0.20	setosa
2	4.90	3.00	1.40	0.20	setosa
3	4.70	3.20	1.30	0.20	setosa
4	4.60	3.10	1.50	0.20	setosa
5	5.00	3.60	1.40	0.20	setosa
6	5.40	3.90	1.70	0.40	setosa

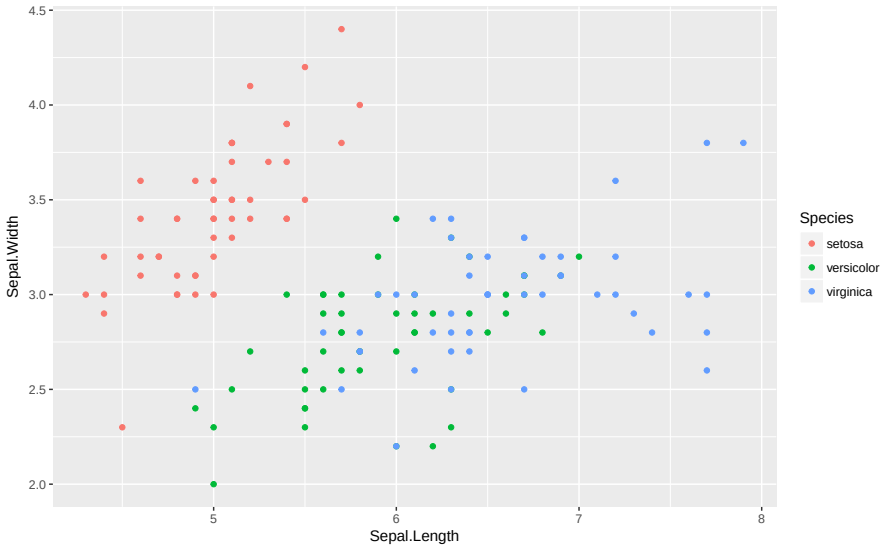
plot

```
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.

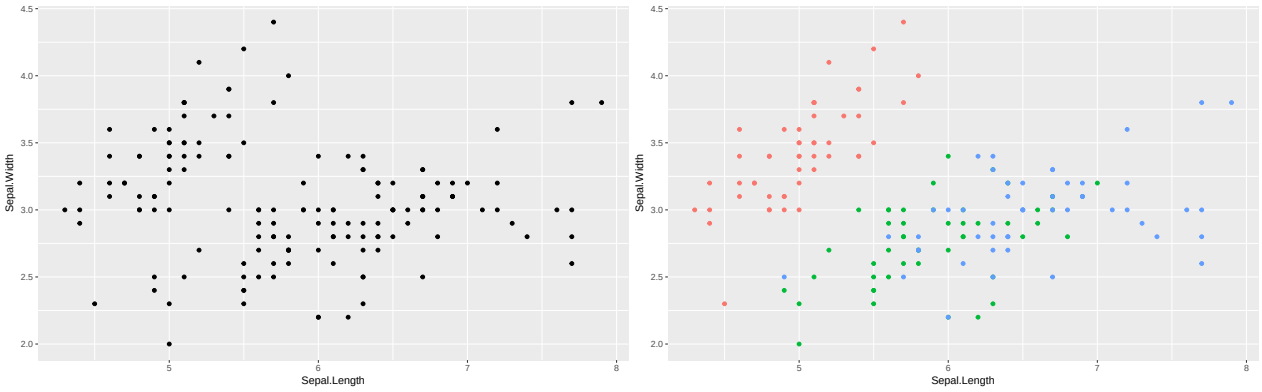
table

```
result= df2flextable(head(mtcars))
df=result$body$dataset
df=html2latex(df)
class(df)='data.frame'
print(ztable(df,longtable=TRUE),type='latex')
```

	mpg	cyl	disp	hp	drat	wt	qsec	vs	am	gear	carb
Mazda RX4	21.00	6.00	160.00	110.00	3.90	2.62	16.46	0.00	1.00	4.00	4.00
Mazda RX4 Wag	21.00	6.00	160.00	110.00	3.90	2.88	17.02	0.00	1.00	4.00	4.00
Datsun 710	22.80	4.00	108.00	93.00	3.85	2.32	18.61	1.00	1.00	4.00	1.00
Hornet 4 Drive	21.40	6.00	258.00	110.00	3.08	3.21	19.44	1.00	0.00	3.00	1.00
Hornet Sportabout	18.70	8.00	360.00	175.00	3.15	3.44	17.02	0.00	0.00	3.00	2.00
Valiant	18.10	6.00	225.00	105.00	2.76	3.46	20.22	1.00	0.00	3.00	1.00

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)
```