Chapter_9_HW

Homework: Chapter 9 Showing Results with Tables

Due: April 4th, 2024

1. Produce One table using datsets from data() function in each of the following:

```
data("ChickWeight")
#View(ChickWeight)
```

LaTeX

Chick	Weight	Time	Diet
1	42	0	1
2	40	0	1
3	43	0	1
4	42	0	1

HTML

Chick	Weight	Time	Diet
1	42	0	1
2	40	0	1
3	43	0	1
4	42	0	1

xtable

```
[1] "lm"
```

```
Call:
lm(formula = weight ~ Time, data = ChickWeight)

Residuals:
     Min       1Q   Median       3Q      Max
-138.331  -14.536    0.926   13.533  160.669

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  27.4674     3.0365   9.046   <2e-16 ***
Time          8.8030     0.2397  36.725   <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 38.91 on 576 degrees of freedom
Multiple R-squared:  0.7007,    Adjusted R-squared:  0.7002
F-statistic:  1349 on 1 and 576 DF,  p-value: < 2.2e-16
```

% latex table generated in R 4.3.3 by xtable 1.8-4 package % Wed Apr 3 16:19:17 2024

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	27.5	3.0	9.0	0.0
Time	8.8	0.2	36.7	0.0

texreg

```
M2 <- lm(weight ~ Time + Diet, data = ChickWeight)
summary(M2)
```

```
Call:
lm(formula = weight ~ Time + Diet, data = ChickWeight)

Residuals:
     Min       1Q   Median       3Q      Max
```

```
-136.851  -17.151   -2.595   15.033  141.816

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  10.9244     3.3607   3.251  0.00122 **
Time          8.7505     0.2218  39.451  < 2e-16 ***
Diet2        16.1661     4.0858   3.957 8.56e-05 ***
Diet3        36.4994     4.0858   8.933  < 2e-16 ***
Diet4        30.2335     4.1075   7.361 6.39e-13 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 35.99 on 573 degrees of freedom
Multiple R-squared:  0.7453,    Adjusted R-squared:  0.7435
F-statistic: 419.2 on 4 and 573 DF,  p-value: < 2.2e-16
```

```r
#install.packages("texreg")
library(texreg)
```

```
Version:  1.39.3
Date:     2023-11-09
Author:   Philip Leifeld (University of Essex)

Consider submitting praise using the praise or praise_interactive functions.
Please cite the JSS article in your publications -- see citation("texreg").
```

```r
# Create nested regression model table

texreg(list(M1, M2))
```

Kable

```r
library(knitr)


kable_ex <- data.frame(
  Chick = c("1", "2", "3", "4"),
  Weight = c(42, 40, 43, 42),
  Time = c(0, 0, 0, 0),
```

	Model 1	Model 2
(Intercept)	27.47***	10.92**
	(3.04)	(3.36)
Time	8.80***	8.75***
	(0.24)	(0.22)
Diet2		16.17***
		(4.09)
Diet3		36.50***
		(4.09)
Diet4		30.23***
		(4.11)
R^2	0.70	0.75
Adj. R^2	0.70	0.74
Num. obs.	578	578

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Table 2: Statistical models

```
  Diet = c("1", "1", "1", "1")
)

# Print kable with custom options
kable(
  kable_ex,
  caption = "ChickWeight kable Table",
  digits = 1,        # Number of digits after the decimal point
  col.names = c("Chick", "Weight", "Time", "Diet"),  # Custom column names
  row.names = FALSE  # Remove row names
)
```

Table 3: ChickWeight kable Table

Chick	Weight	Time	Diet
1	42	0	1
2	40	0	1
3	43	0	1
4	42	0	1

stargazer

```
library(stargazer)
```

```
Please cite as:

 Hlavac, Marek (2022). stargazer: Well-Formatted Regression and Summary Statistics Tables.

 R package version 5.2.3. https://CRAN.R-project.org/package=stargazer
```

```
# Print table using stargazer

stargazer(M2, type = "text")
```

```
================================================
                        Dependent variable:
                    ---------------------------
                               weight
------------------------------------------------
Time                          8.750***
                               (0.222)

Diet2                         16.166***
                               (4.086)

Diet3                         36.499***
                               (4.086)

Diet4                         30.233***
                               (4.107)

Constant                      10.924***
                               (3.361)

------------------------------------------------
Observations                     578
R2                              0.745
```

```
Adjusted R2                    0.744
Residual Std. Error      35.993 (df = 573)
F Statistic          419.177*** (df = 4; 573)
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
```

Submit: Quarto document, PDF, .README, and push all to GitHub.