

Diamonds Exploration

Marissa

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Reading the excel file

```
library(readxl)
mydiamonds<-read_excel("diamonds.xlsx")
```

Names of columns/variables

```
names(mydiamonds)
```

```
## [1] "carat" "cut" "color" "clarity" "depth" "table" "price"
## [8] "x" "y" "z"
```

Shows top 6 observations

```
head(mydiamonds)
```

```
## # A tibble: 6 x 10
##   carat cut      color clarity depth table price      x      y      z
##   <dbl> <chr>    <chr> <chr>    <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
## 1 0.23 Ideal     E     SI2     61.5   55   326   3.95   3.98   2.43
## 2 0.21 Premium  E     SI1     59.8   61   326   3.89   3.84   2.31
## 3 0.23 Good     E     VS1     56.9   65   327   4.05   4.07   2.31
## 4 0.290 Premium I     VS2     62.4   58   334   4.2    4.23   2.63
## 5 0.31 Good     J     SI2     63.3   58   335   4.34   4.35   2.75
## 6 0.24 Very Good J     VVS2    62.8   57   336   3.94   3.96   2.48
```

Structure of the data

```
str(mydiamonds)
```

```
## Classes 'tbl_df', 'tbl' and 'data.frame':    53940 obs. of  10 variables:
## $ carat   : num  0.23 0.21 0.23 0.29 0.31 0.24 0.24 0.26 0.22 0.23 ...
## $ cut     : chr  "Ideal" "Premium" "Good" "Premium" ...
## $ color   : chr  "E" "E" "E" "I" ...
## $ clarity: chr  "SI2" "SI1" "VS1" "VS2" ...
## $ depth   : num  61.5 59.8 56.9 62.4 63.3 62.8 62.3 61.9 65.1 59.4 ...
## $ table   : num  55 61 65 58 58 57 57 55 61 61 ...
## $ price   : num  326 326 327 334 335 336 336 337 337 338 ...
## $ x       : num  3.95 3.89 4.05 4.2 4.34 3.94 3.95 4.07 3.87 4 ...
## $ y       : num  3.98 3.84 4.07 4.23 4.35 3.96 3.98 4.11 3.78 4.05 ...
## $ z       : num  2.43 2.31 2.31 2.63 2.75 2.48 2.47 2.53 2.49 2.39 ...
```

Create new variable

```
mydiamonds$pricetable <- mydiamonds$price + mydiamonds$table
```

Summarize the variable

```
head(mydiamonds$pricetable)
```

```
## [1] 381 387 392 392 393 393
```

```
summary(mydiamonds$pricetable)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##      381    1007    2459    3990    5383   18883
```