Diamond_Project

Ali Valiyev

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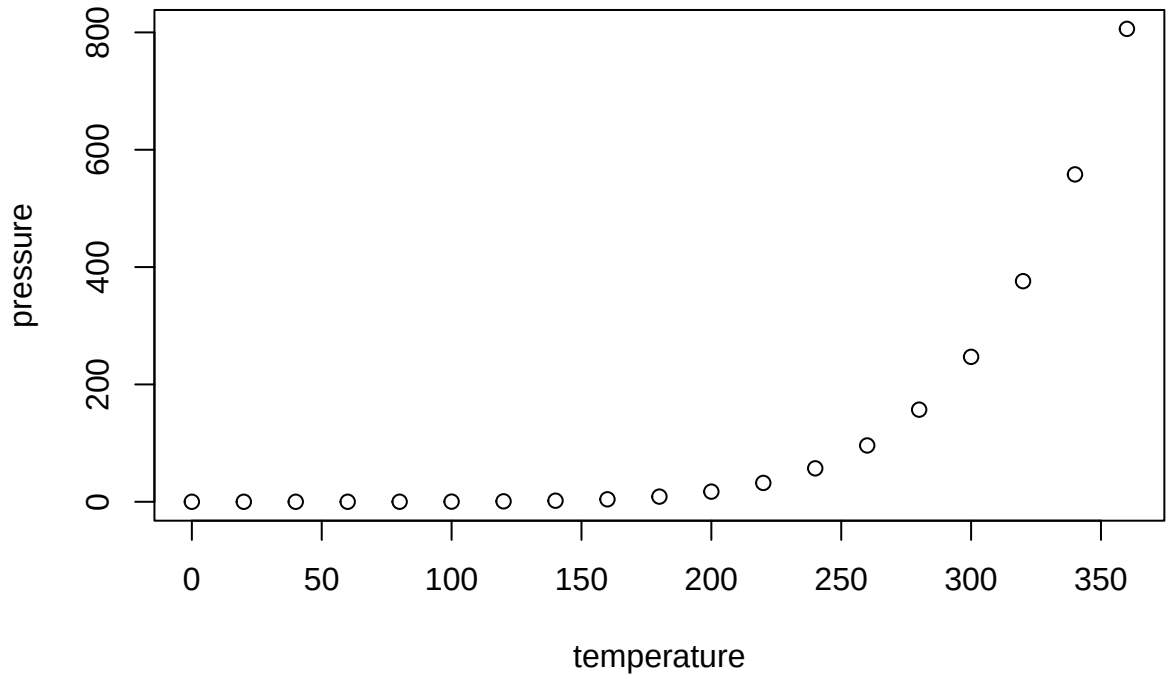



```
#Ilk Once "tidyverse" ve "dplyr" paketlerimizi kuruyoruz
library(tidyverse)
```

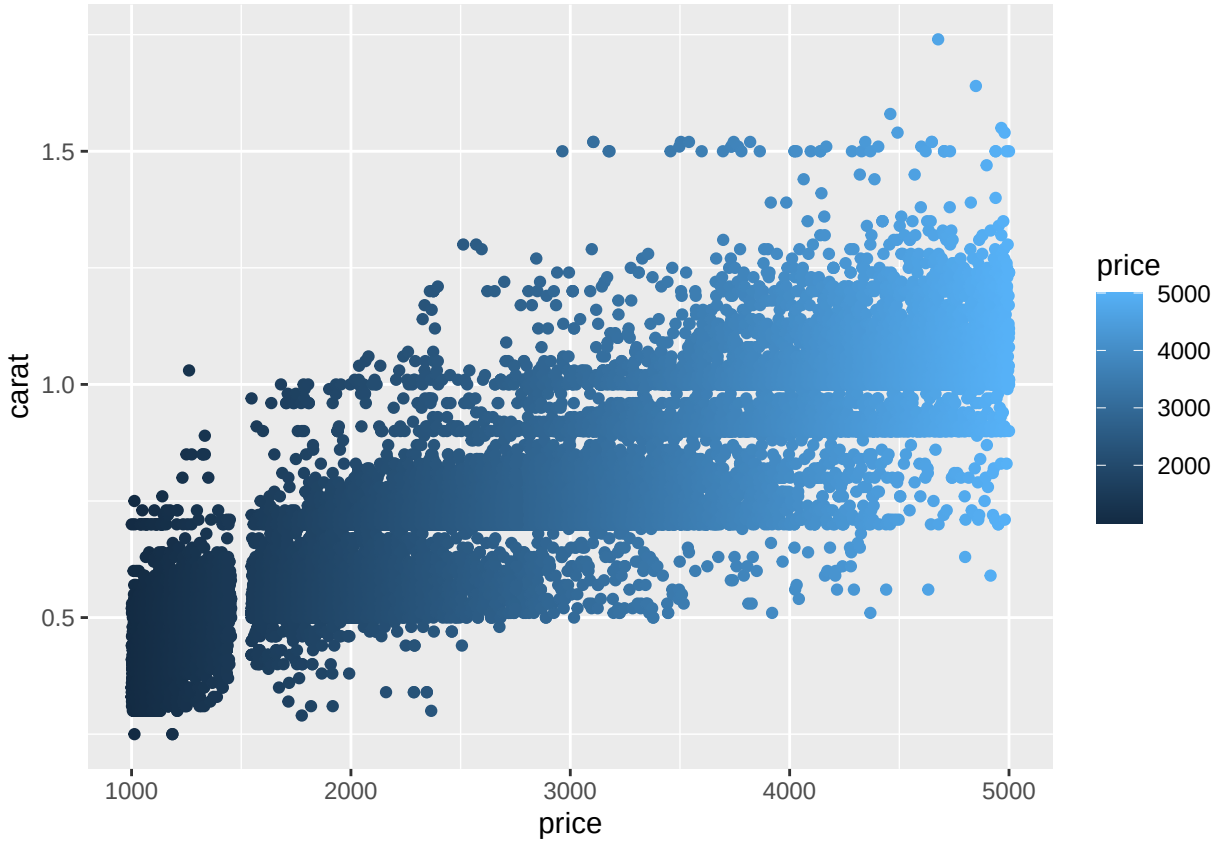
```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v dplyr     1.1.4     v readr     2.1.4
## v forcats   1.0.0     v stringr   1.5.0
## v ggplot2   3.4.4     v tibble    3.2.1
## v lubridate 1.9.3     v tidyr     1.3.0
## v purrr     1.0.2
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```r
library(dplyr)
clone_diamonds = ggplot2::diamonds
```

```r
#Verisetinden Bizim kullanabilecegimiz kismi filter fonksiyonu ile filtreliyoruz.
sub_diamonds = filter(clone_diamonds, price>1000 & price<=5000)
sub_diamonds
```

```
## # A tibble: 24,702 x 10
##    carat cut       color clarity depth table price     x     y     z
##    <dbl> <ord>     <ord> <ord>   <dbl> <dbl> <int> <dbl> <dbl> <dbl>
##  1  0.7  Ideal     E     SI1      62.5    57  2757  5.7   5.72  3.57
##  2  0.86 Fair      E     SI2      55.1    69  2757  6.45  6.33  3.52
##  3  0.7  Ideal     G     VS2      61.6    56  2757  5.7   5.67  3.5
##  4  0.71 Very Good E     VS2      62.4    57  2759  5.68  5.73  3.56
##  5  0.78 Very Good G     SI2      63.8    56  2759  5.81  5.85  3.72
##  6  0.7  Good      E     VS2      57.5    58  2759  5.85  5.9   3.38
##  7  0.7  Good      F     VS1      59.4    62  2759  5.71  5.76  3.4
##  8  0.96 Fair      F     SI2      66.3    62  2759  6.27  5.95  4.07
##  9  0.73 Very Good E     SI1      61.6    59  2760  5.77  5.78  3.56
## 10  0.8  Premium   H     SI1      61.5    58  2760  5.97  5.93  3.66
## # i 24,692 more rows
```

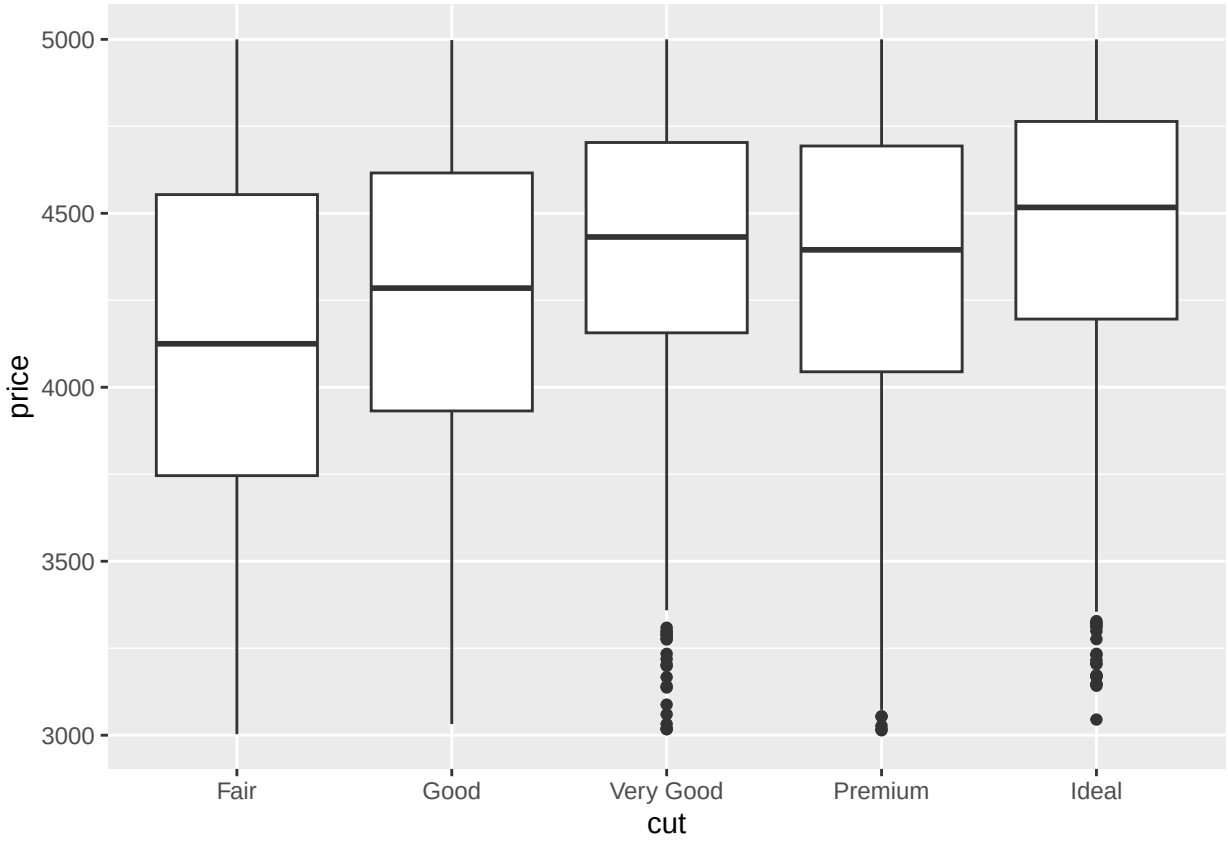
```r
#Geom_point fonksiyonunu kullanarak karat ve fiyat arasindaki dagilimin gorsel halini gorebiliyoruz. Bu
Best_diamond = ggplot(data=sub_diamonds) +
  geom_point(mapping = aes(price,carat,color=price))
Best_diamond
```




```
#3000 dolar uzeri ve karati birden yuksek olan pirlantalari siralayalim.
sub_diamonds = filter(sub_diamonds, price >= 3000 & carat>1)
sub_diamonds
```

```
## # A tibble: 3,654 x 10
##    carat cut       color clarity depth table price     x     y     z
##    <dbl> <ord>     <ord> <ord>   <dbl> <dbl> <int> <dbl> <dbl> <dbl>
##  1  1.01 Fair      D     SI2      64.6    56  3003  6.31  6.24  4.05
##  2  1.2  Fair      J     I1       64.9    59  3011  6.61  6.54  4.27
##  3  1.2  Fair      I     I1       62.2    66  3011  6.77  6.7   4.2
##  4  1.2  Fair      I     I1       66.2    55  3011  6.61  6.51  4.34
##  5  1.01 Premium   G     I1       61.1    61  3014  6.49  6.35  3.92
##  6  1.12 Premium   G     I1       60.3    60  3017  6.75  6.69  4.05
##  7  1.12 Very Good G     I1       61.2    63  3017  6.68  6.59  4.05
##  8  1.03 Very Good G     I1       60.8    57  3018  6.51  6.55  3.97
##  9  1.02 Very Good F     SI2      63.3    56  3018  6.38  6.31  4.02
## 10  1.02 Fair      J     SI1      66.8    55  3027  6.25  6.18  4.15
## # i 3,644 more rows
```

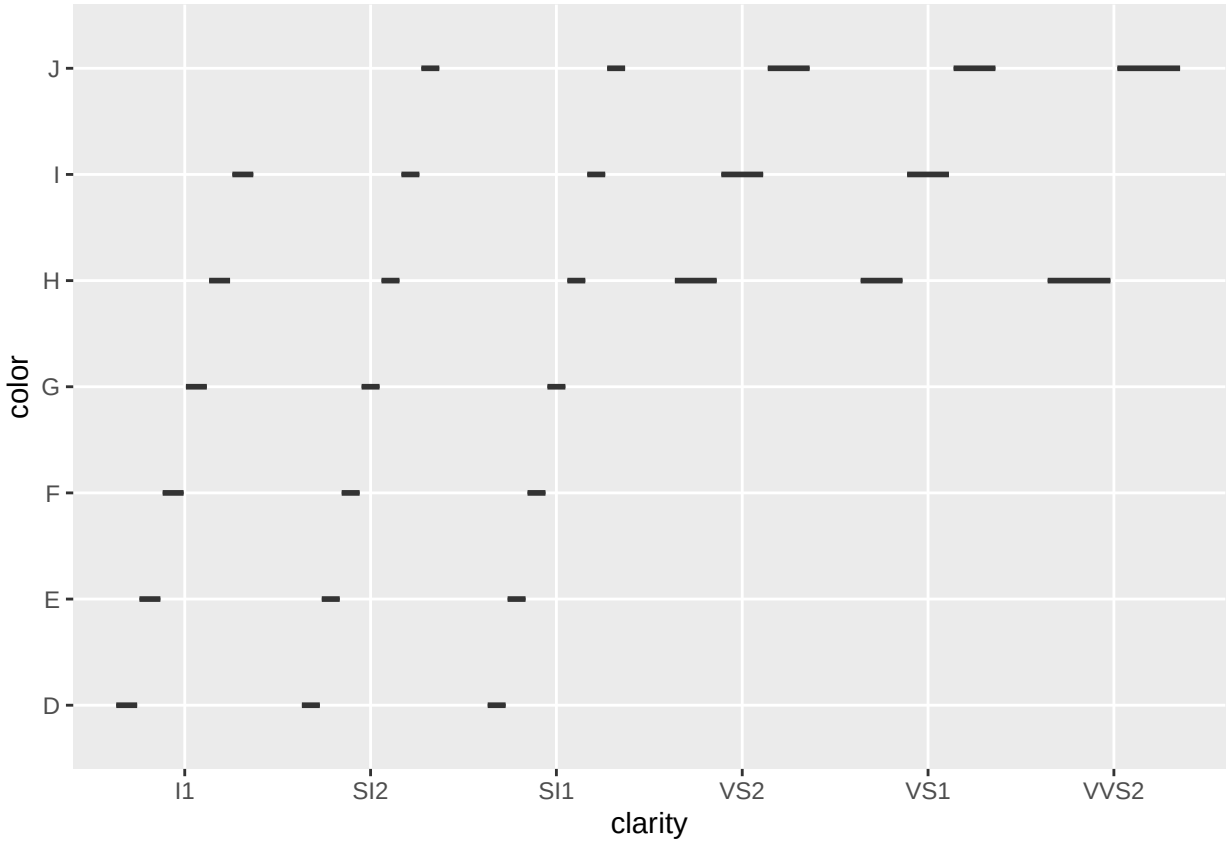
```
#Geom_boxplot fonksiyonunu kullanarak karat ve fiyat arasindaki iliskinin gorsel halini gorebiliyoruz.
Best_diamond = ggplot(data=sub_diamonds) +
  geom_boxplot(mapping = aes(cut,price))
Best_diamond
```




```
#"Ideal" kesim pirlantalari filtreliyelim
sub_diamonds = filter(sub_diamonds,cut=="Ideal")
sub_diamonds
```

```
## # A tibble: 898 x 10
##    carat cut   color clarity depth table price     x     y     z
##    <dbl> <ord> <ord> <ord>   <dbl> <dbl> <int> <dbl> <dbl> <dbl>
##  1  1.14 Ideal J     SI1      60.2    57  3045  6.81  6.71  4.07
##  2  1.02 Ideal H     SI2      58.8    57  3142  6.61  6.55  3.87
##  3  1.06 Ideal I     SI2      62.8    55  3146  6.51  6.46  4.07
##  4  1.02 Ideal I     VS2      62.8    57  3148  6.45  6.39  4.03
##  5  1.08 Ideal F     I1       61.8    56  3168  6.64  6.62  4.1
##  6  1.23 Ideal H     I1       61.6    55  3168  6.92  6.87  4.25
##  7  1.03 Ideal H     I1       61.5    57  3172  6.48  6.52  4
##  8  1.03 Ideal H     SI2      62.4    57  3172  6.43  6.36  4
##  9  1.02 Ideal G     SI2      62.3    56  3204  6.39  6.35  3.97
## 10  1.01 Ideal J     SI1      62.1    54  3207  6.48  6.4   4
## # i 888 more rows
```

```
#Geom_boxplot fonksiyonunu kullanarak son 2 degisken olan clarity ve color arasindaki iliskinin gorsel
Best_diamond = ggplot(data=sub_diamonds) +
  geom_boxplot(mapping = aes(clarity,color))
Best_diamond
```




```
sub_diamonds = filter(sub_diamonds,color=="H" & clarity=="VVS2")
sub_diamonds
```

```
## # A tibble: 1 x 10
##   carat cut   color clarity depth table price     x     y     z
##   <dbl> <ord> <ord> <ord>   <dbl> <dbl> <int> <dbl> <dbl> <dbl>
## 1  1.02 Ideal H     VVS2     60.9    57  4798  6.49  6.44  3.94
```

#Buldugumuz pirlantaya satinalabilecegimiz en uygun pirlanta diyebiliriz

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.