Data visualization

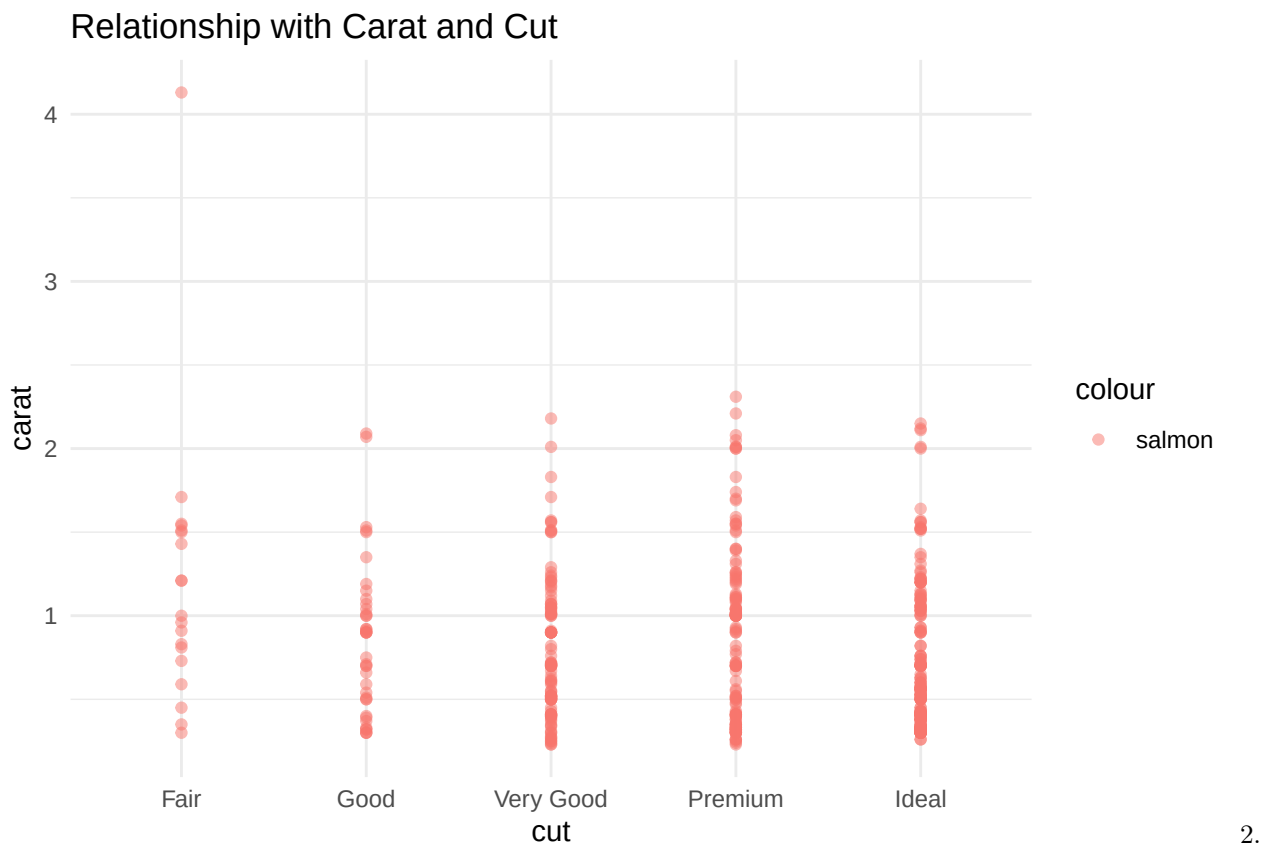
```
library(ggplot2)
library(tidyverse)
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.2 --
## v tibble  3.1.8      v dplyr   1.0.10
## v tidyr   1.2.1      v stringr 1.4.1
## v readr   2.1.2      v forcats 0.5.2
## v purrr   0.3.4
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

Dataset Diamonds

1. Graph 1 - Show relationship with Carat and Cut

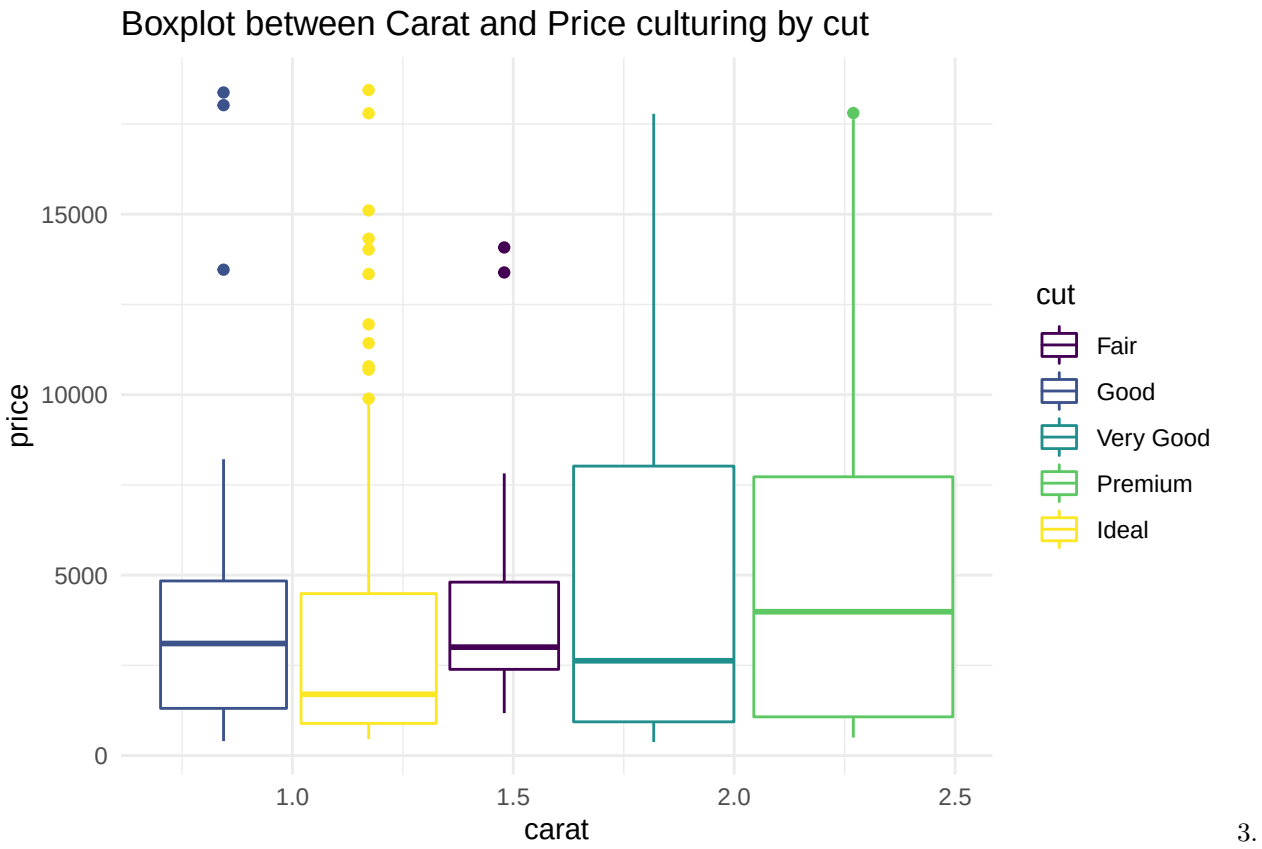
```
ggplot(sample_n(diamonds,500),mapping = aes(cut,carat,color = "salmon")) +
  geom_point(alpha = 0.5) +
  theme_minimal()+
  labs(title = "Relationship with Carat and Cut")
```



2.

Graph 2 - Show boxplot between Carat and Price culturing by cut

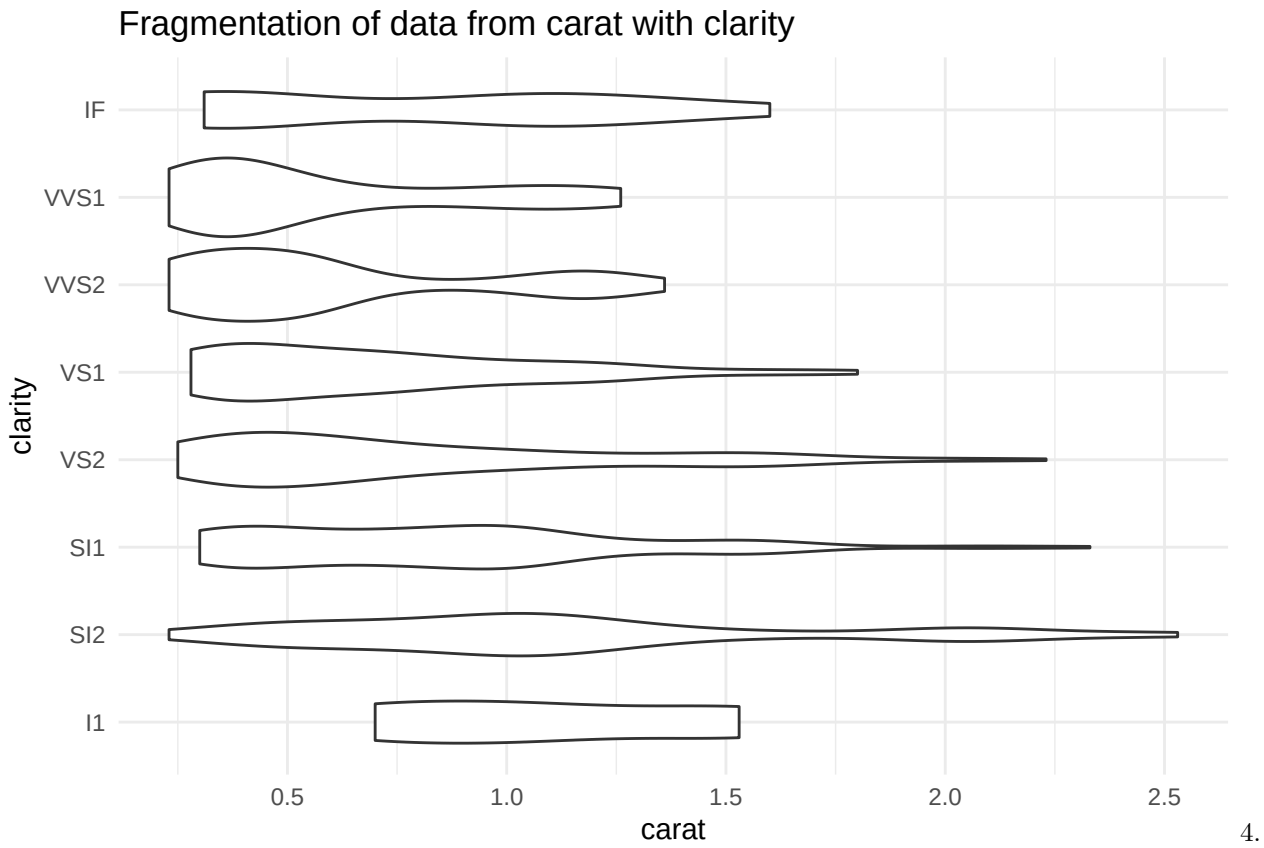
```
ggplot(sample_n(diamonds,500),mapping = aes(carat,price,colour = cut)) +
  geom_boxplot() +
  theme_minimal() +
  labs(title = "Boxplot between Carat and Price culturing by cut")
```



3.

Graph 3 Show fragmentation of data from carat with clarity

```
ggplot(sample_n(diamonds,500),mapping = aes(carat,clarity)) +
  geom_violin() +
  theme_minimal() +
  labs(title = "Fragmentation of data from carat with clarity")
```



4.

Graph 4 - Show compare diamond depth and price with color (D = Best, J = Worst)

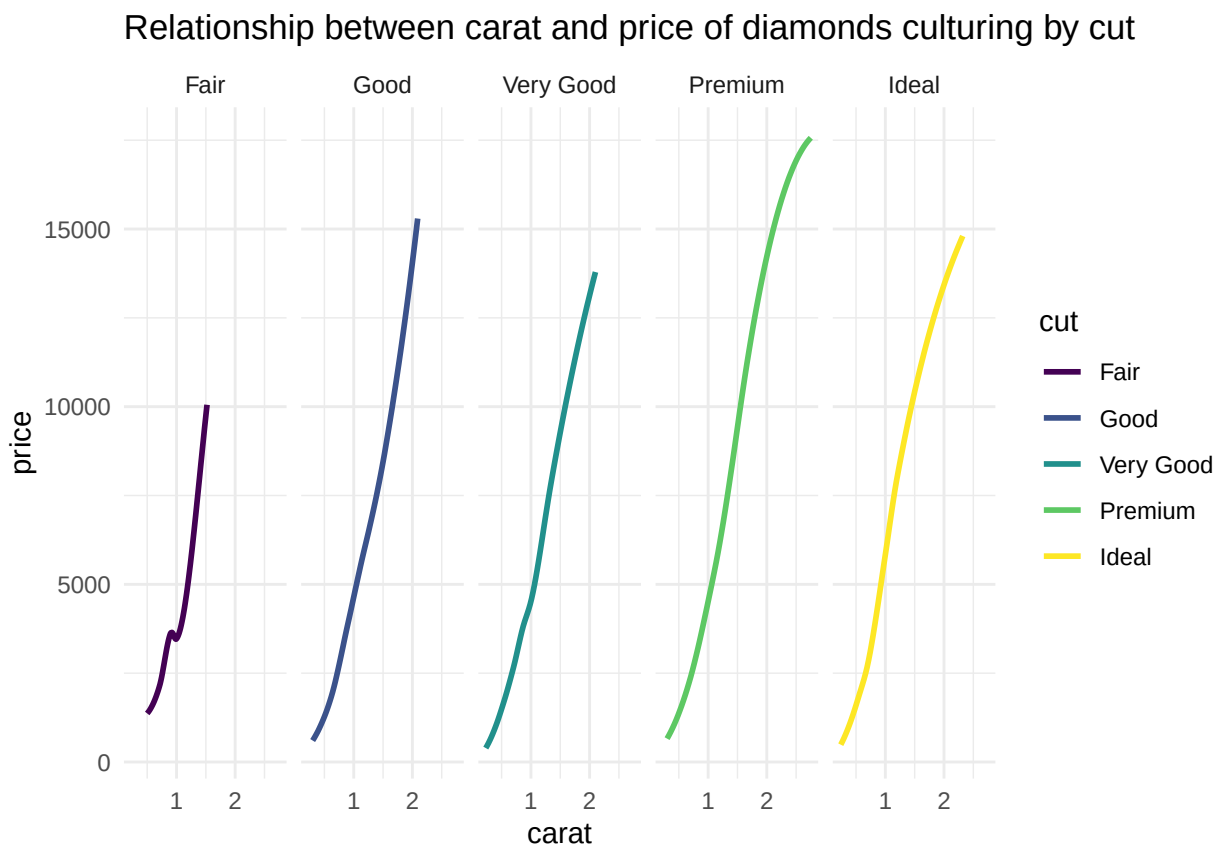
```
ggplot(sample_n(diamonds,500),mapping = aes(price,depth,colour = color ))+
  geom_jitter(size = 2 ,alpha = 0.8) +
  theme_minimal() +
  labs(title = "Compare diamond depth and price with color (D = Best, J = Worst)")
```

5.

Graph 5 - Relationship between carat and price of diamonds culturing by cut

```
ggplot(sample_n(diamonds,500),mapping = aes(carat,price,color=cut)) +
  geom_smooth(method = 'loess', se = F) +
  theme_minimal()+
  facet_wrap(~cut, ncol = 5) +
  labs(title = "Relationship between carat and price of diamonds culturing by cut")
```

```
## `geom_smooth()` using formula 'y ~ x'
```


Relationship between carat and price of diamonds culturing by cut
Fair
Good
Very Good
Premium
Ideal
price
15000
10000
5000
0
1
2
carat
cut
Fair
Good
Very Good
Premium
Ideal