# Examples Slot 6

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### Example

```
library(ggplot2)
diamonds_df<-as.data.frame(diamonds)
head(diamonds_df)
```

```
##   carat       cut color clarity depth table price    x    y    z
## 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  0.29   Premium     I     VS2  62.4    58   334 4.20 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
```

### Example

```
summary(diamonds_df$carat)
```

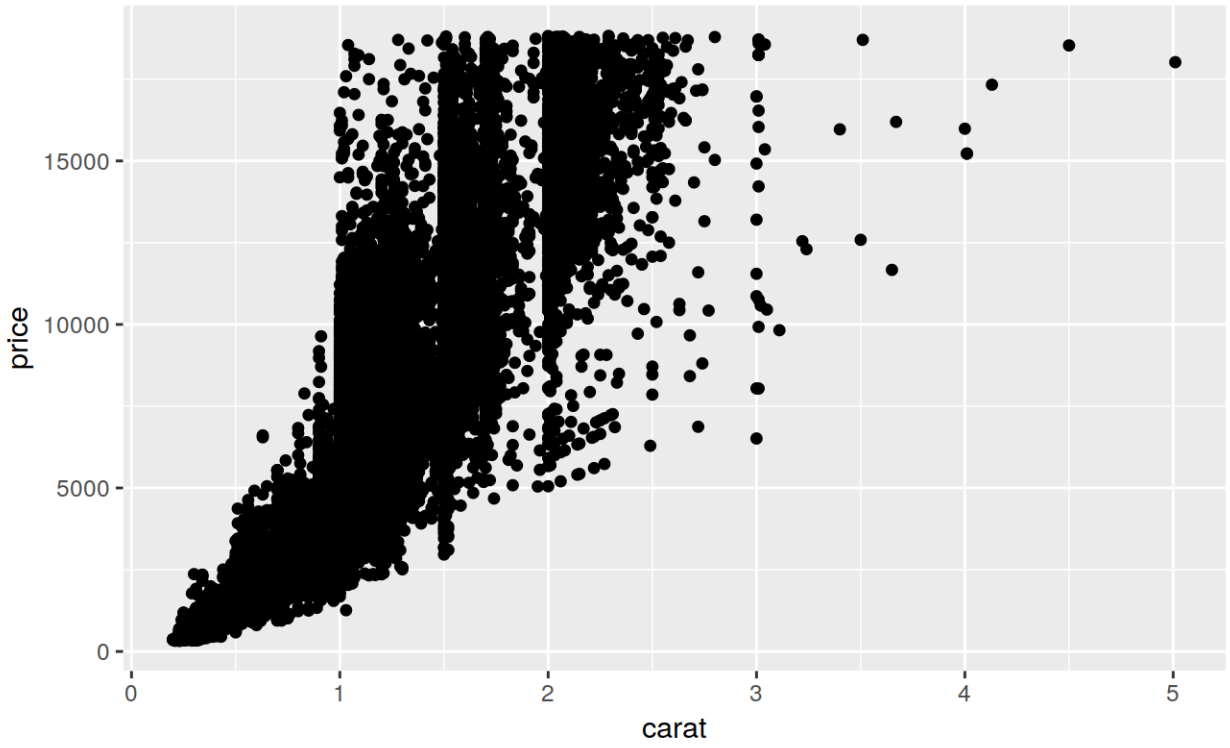
```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##  0.2000  0.4000  0.7000  0.7979  1.0400  5.0100
```

### Example

```
ggplot(data=diamonds_df)
```

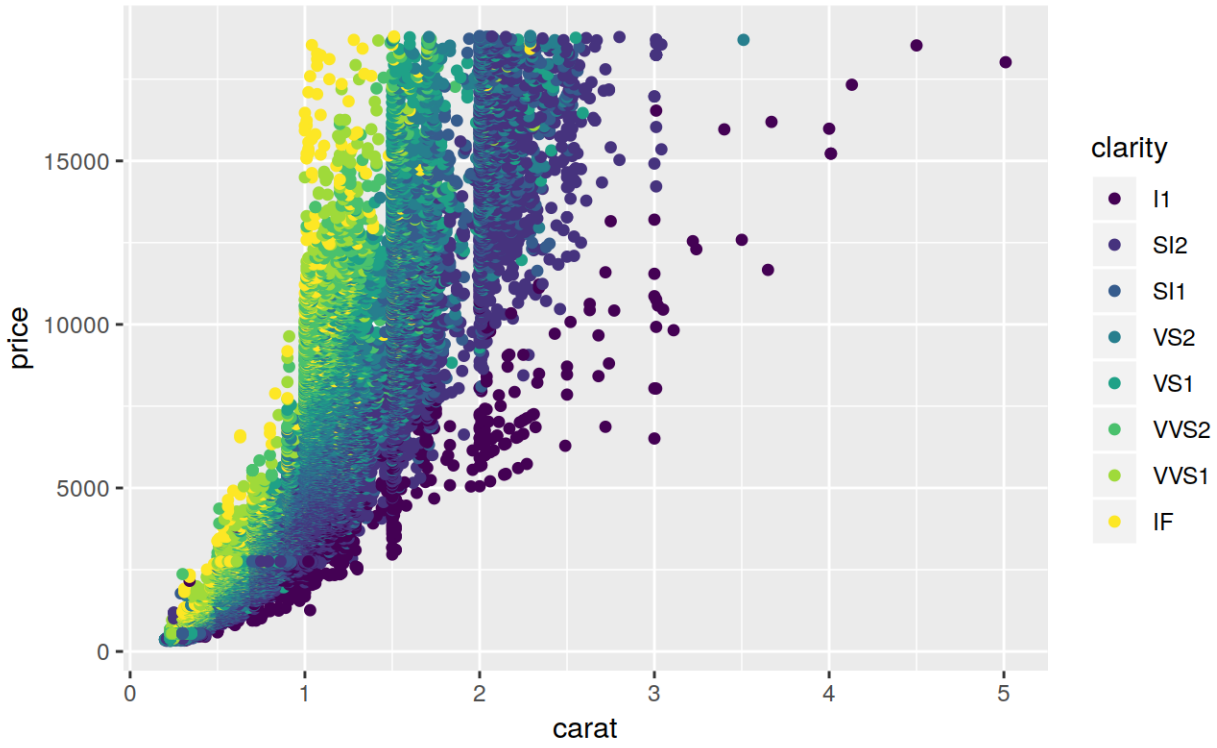
### Example

```
ggplot(data=diamonds_df) + geom_point(mapping=aes(x=carat, y=price))
```



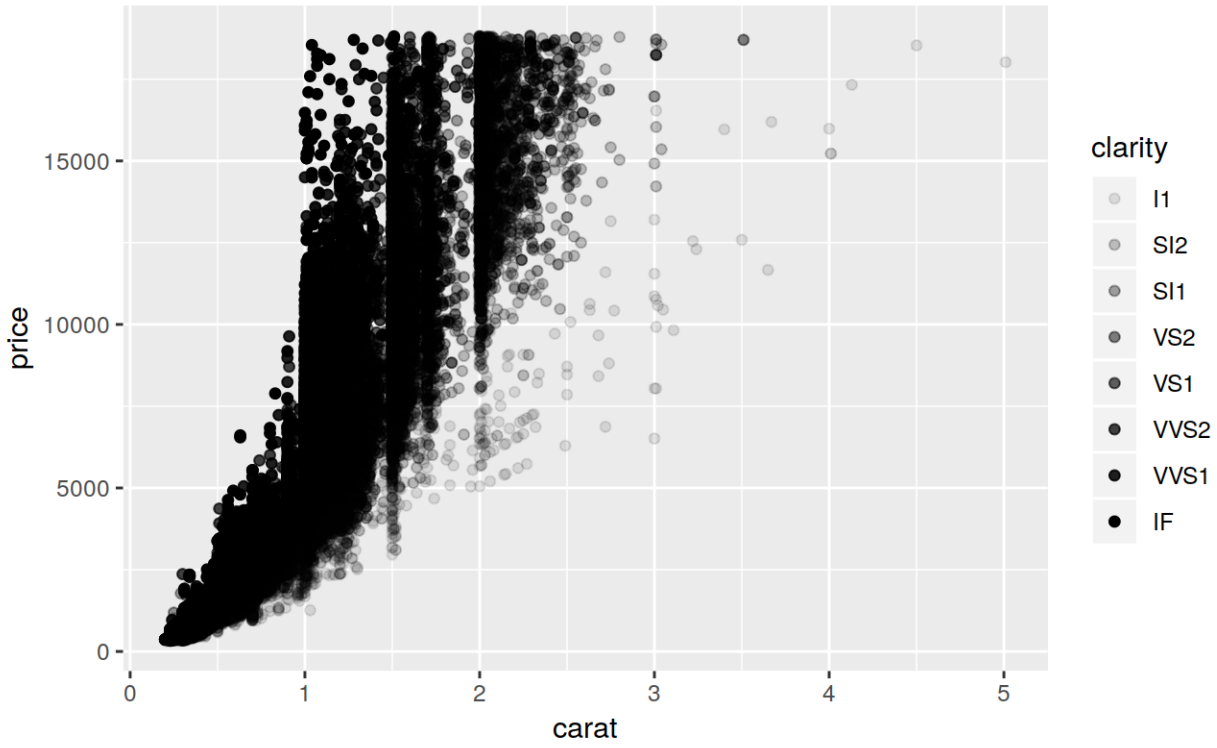

### Example

```
ggplot(data = diamonds_df) +
  geom_point(mapping = aes(x = carat, y = price, color = clarity))
```



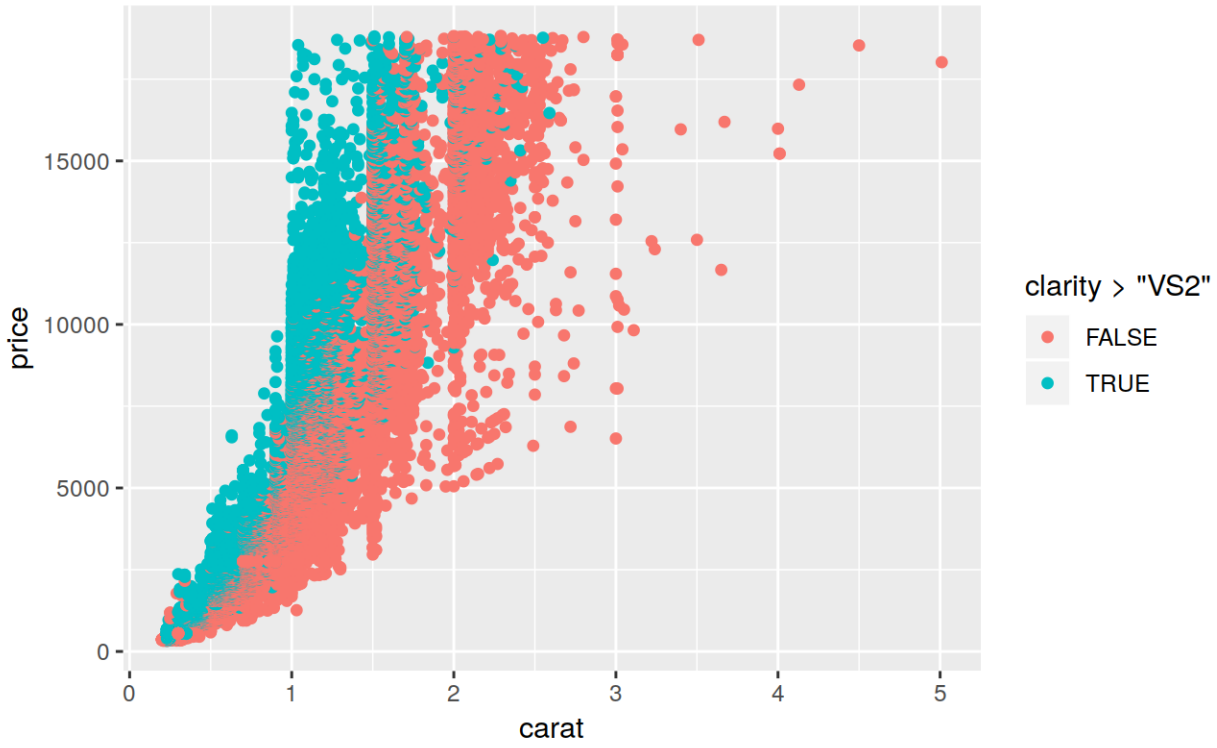

### Example

```
ggplot(data = diamonds_df) +
  geom_point(mapping = aes(x = carat, y = price, alpha = clarity))
```



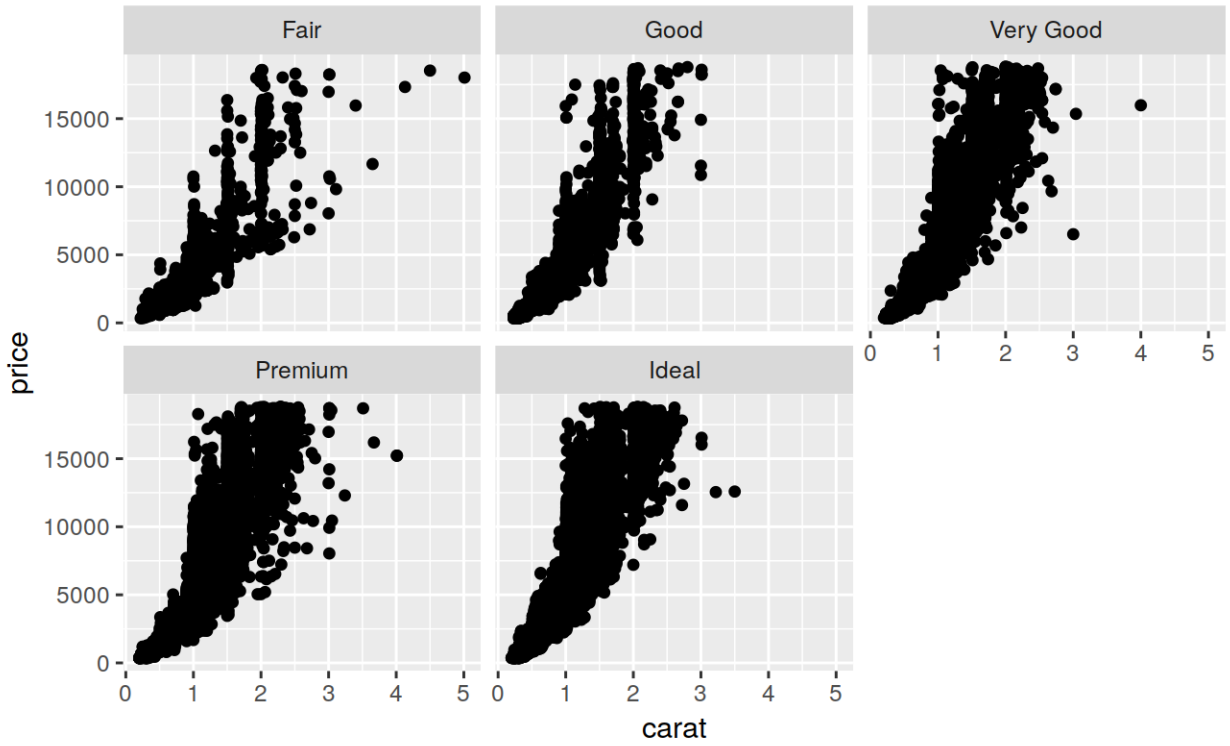

### Example

```
ggplot(data = diamonds_df) +
  geom_point(mapping = aes(x = carat, y = price,
                           color = clarity > 'VS2'))
```



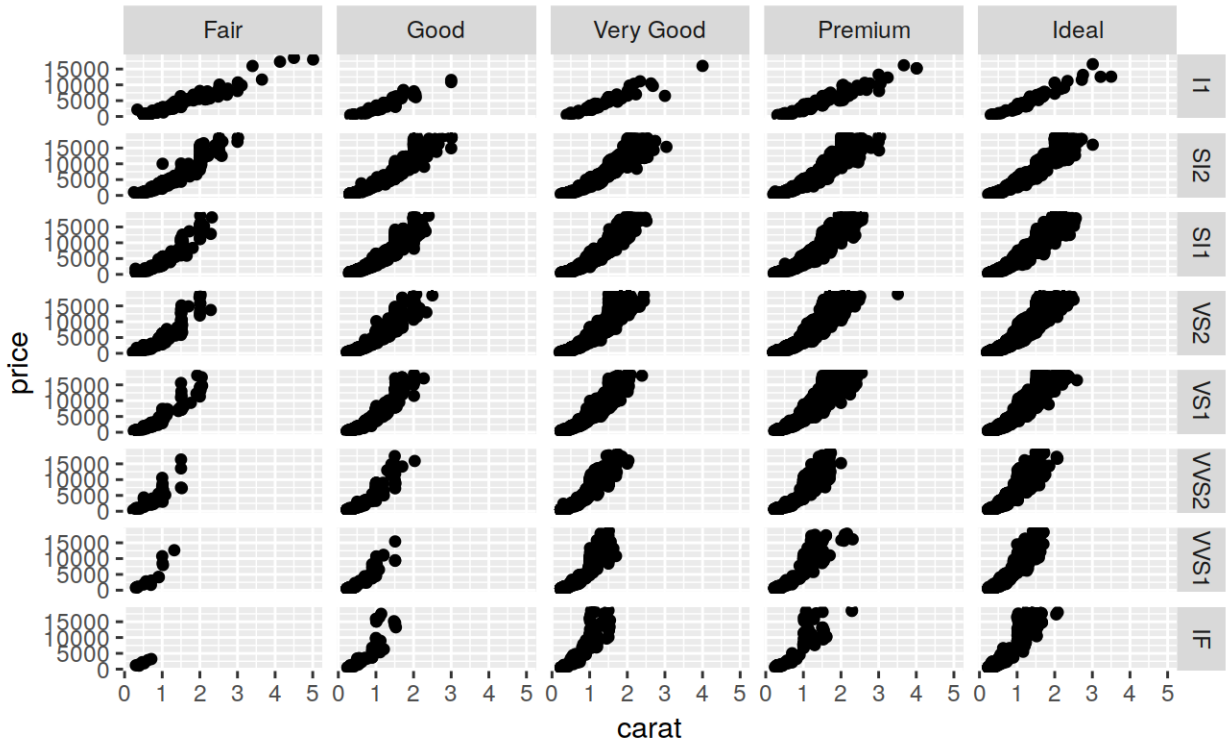

### Example

```
ggplot(data = diamonds_df) +
  geom_point(mapping = aes(x = carat, y = price)) +
  facet_wrap(~ cut, nrow=2)
```



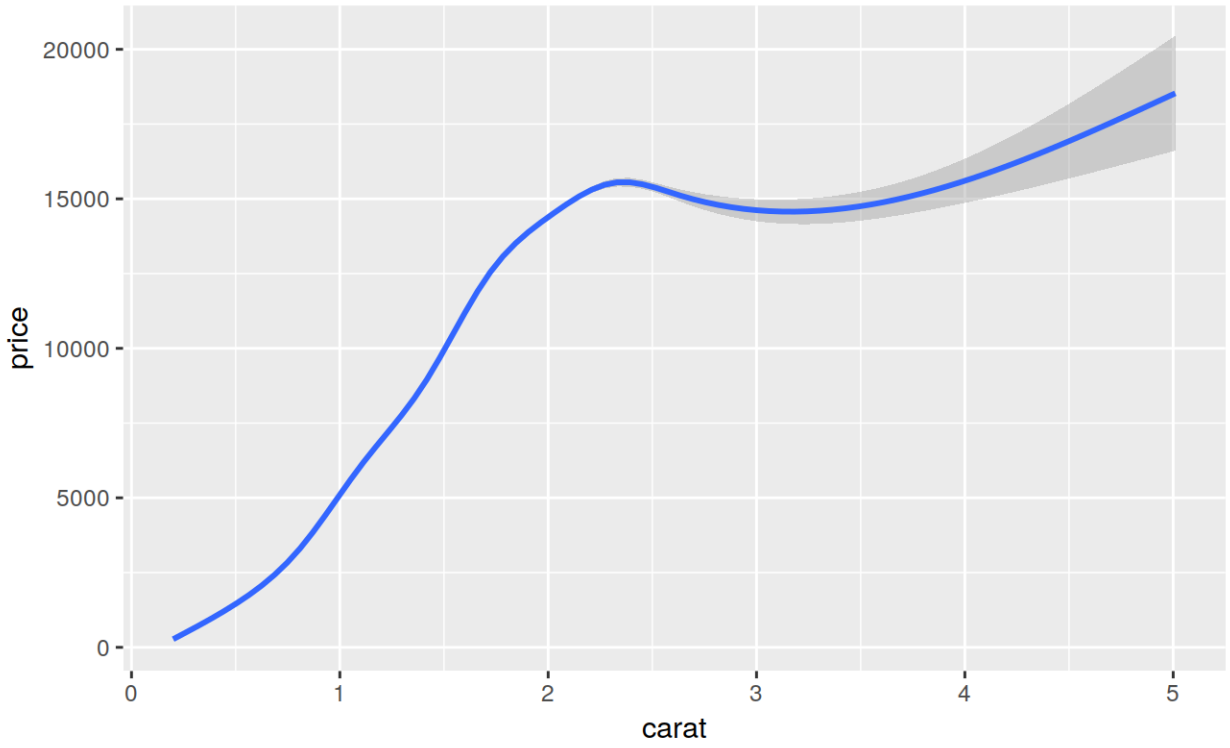

### Example

```
ggplot(data = diamonds_df) +
  geom_point(mapping = aes(x = carat, y = price)) +
  facet_grid(clarity ~ cut)
```



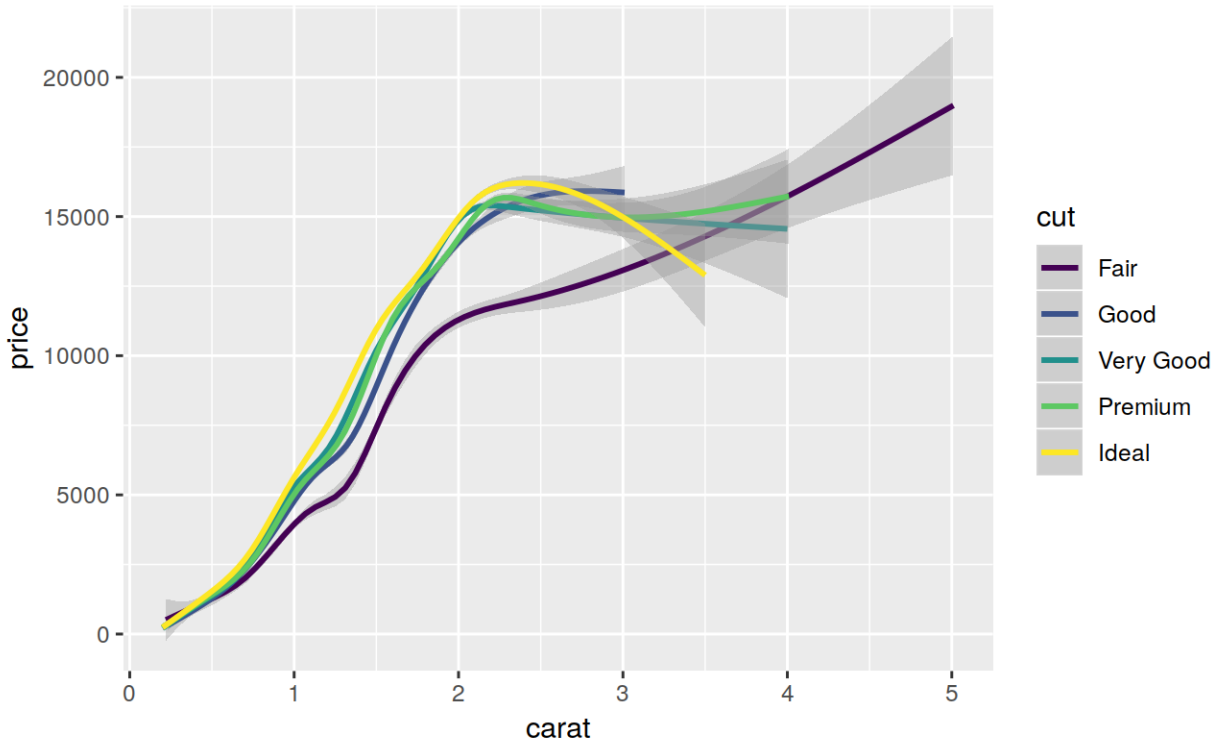

### Example

```
ggplot(data = diamonds_df) +
  geom_smooth(mapping = aes(x = carat, y = price))
```



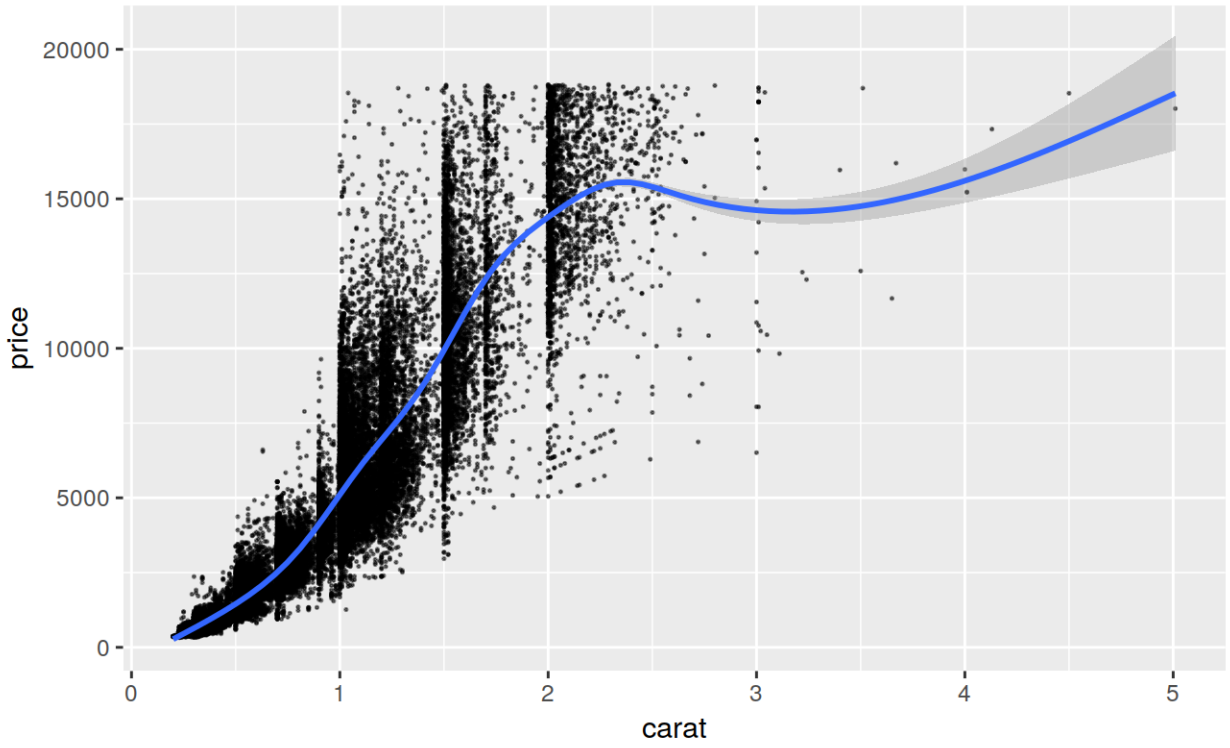

### Example

```
ggplot(data = diamonds_df) +
  geom_smooth(mapping = aes(x = carat, y = price, color=cut))
```



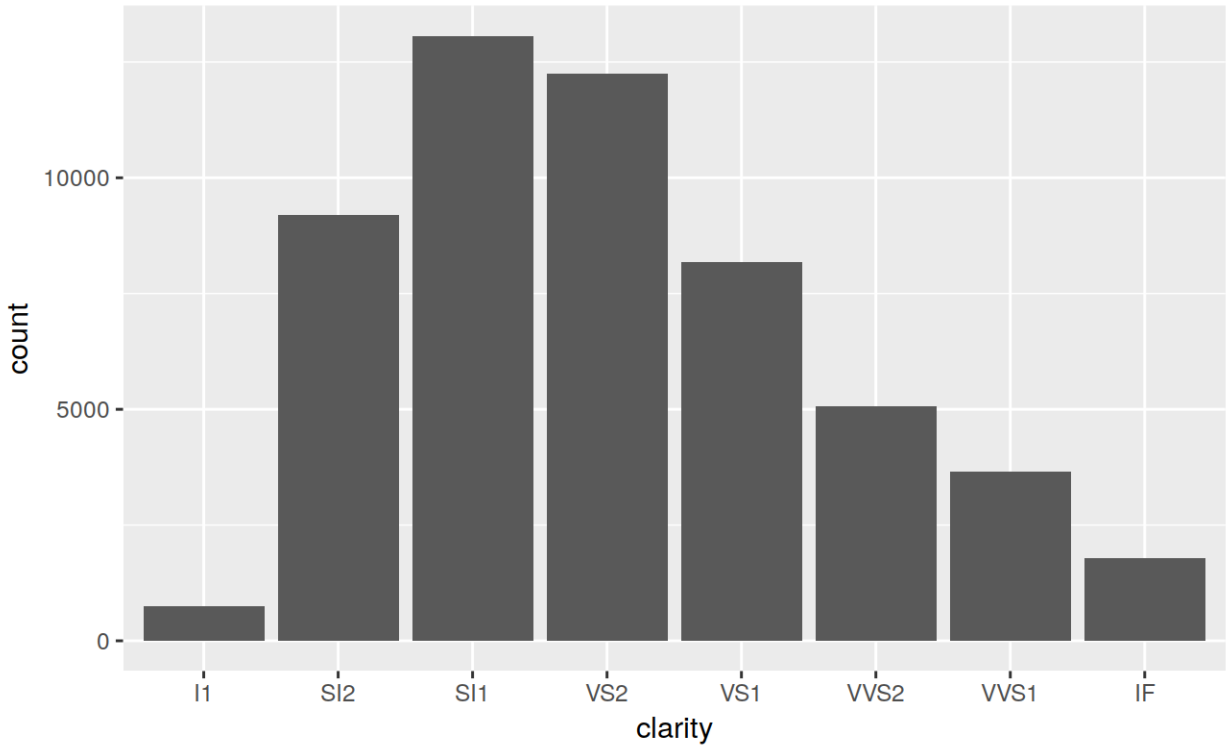

### Example

```
ggplot(data = diamonds_df, mapping = aes(x = carat, y = price)) +
  geom_point(size = 0.2, alpha = 0.5) +
  geom_smooth()
```



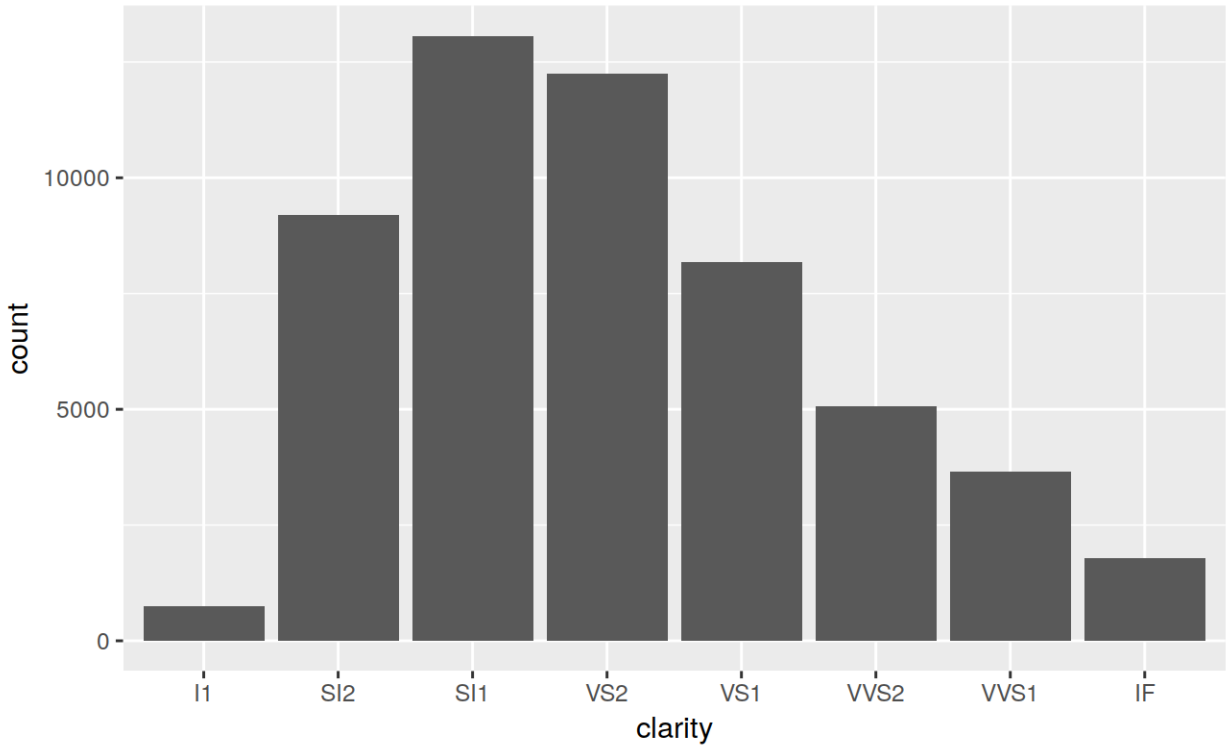

### Example

```
ggplot(data = diamonds_df) +
  geom_bar(mapping = aes(x=clarity))
```



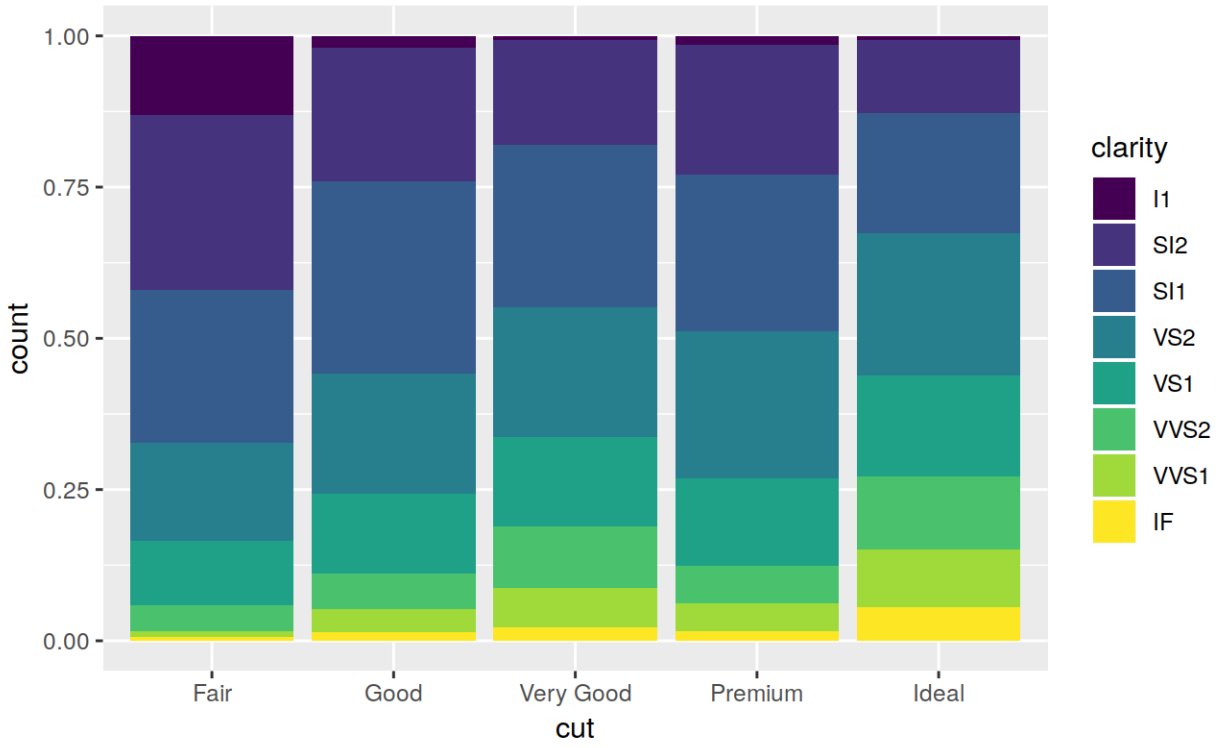

### Example

```
ggplot(data = diamonds_df, mapping = aes(x=clarity)) +
  geom_bar()
```



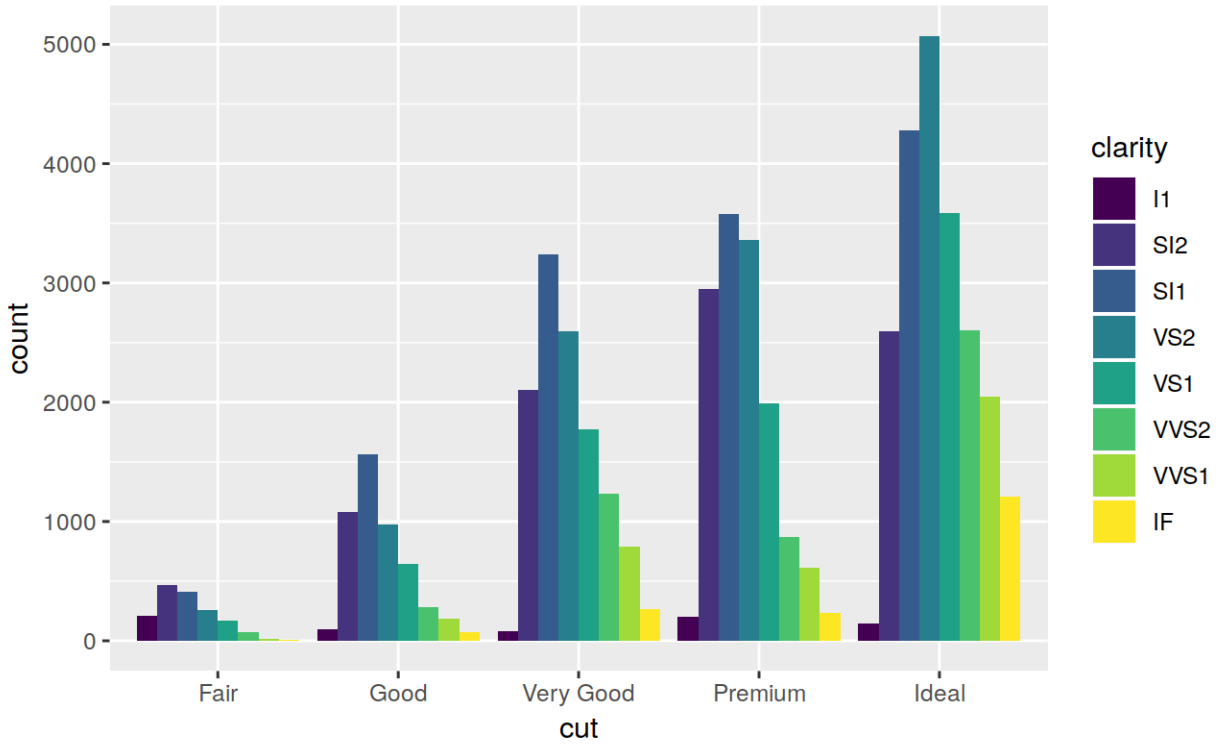

### Example

```
ggplot(data = diamonds_df) +
  geom_bar(mapping = aes(x = cut, fill = clarity),
           position = "fill")
```



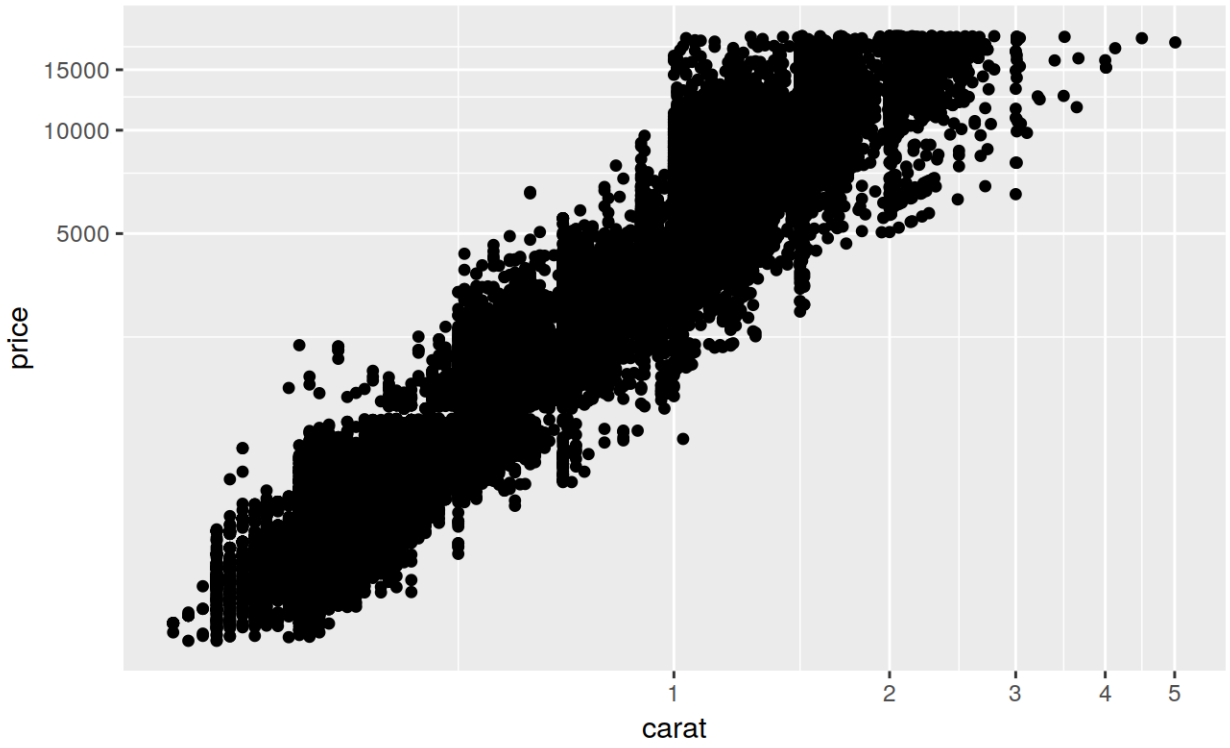

### Example

```
ggplot(data = diamonds_df) +
  geom_bar(mapping = aes(x = cut, fill = clarity),
           position = "dodge")
```



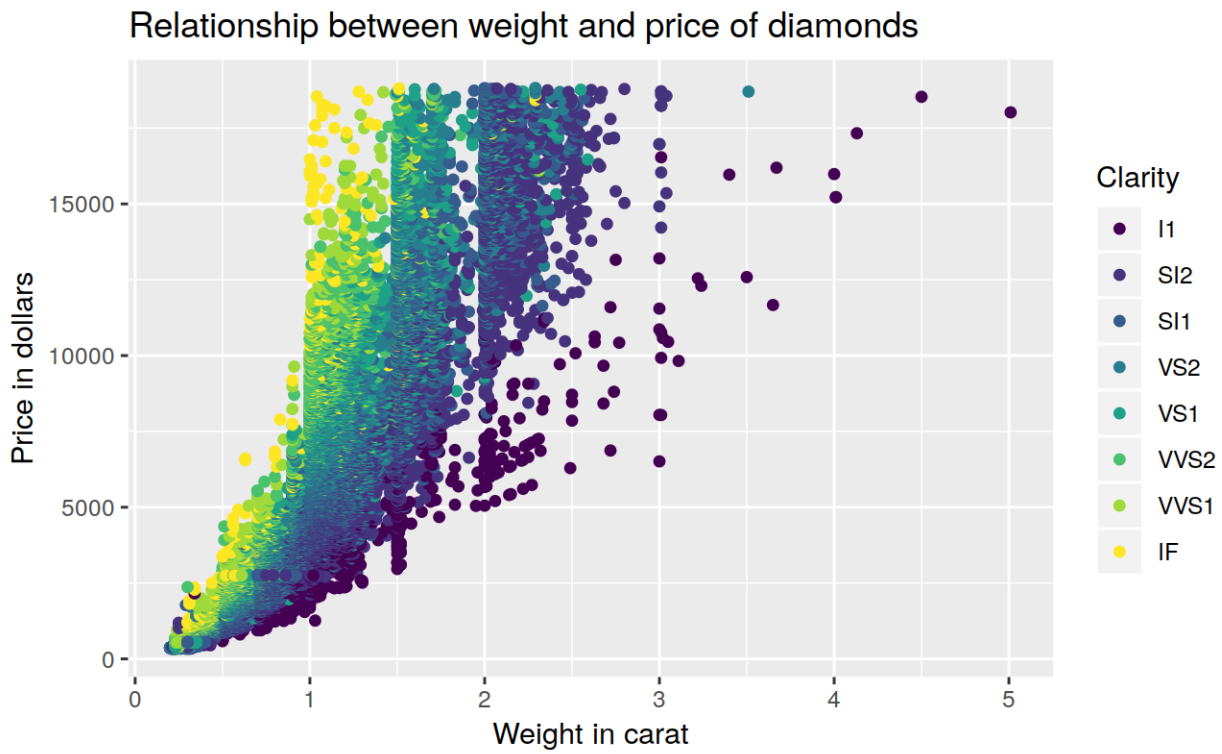

### Example

```
ggplot(data = diamonds_df) +
  geom_point(mapping = aes(x = carat, y = price)) +
  coord_trans(x = "log", y = "log")
```



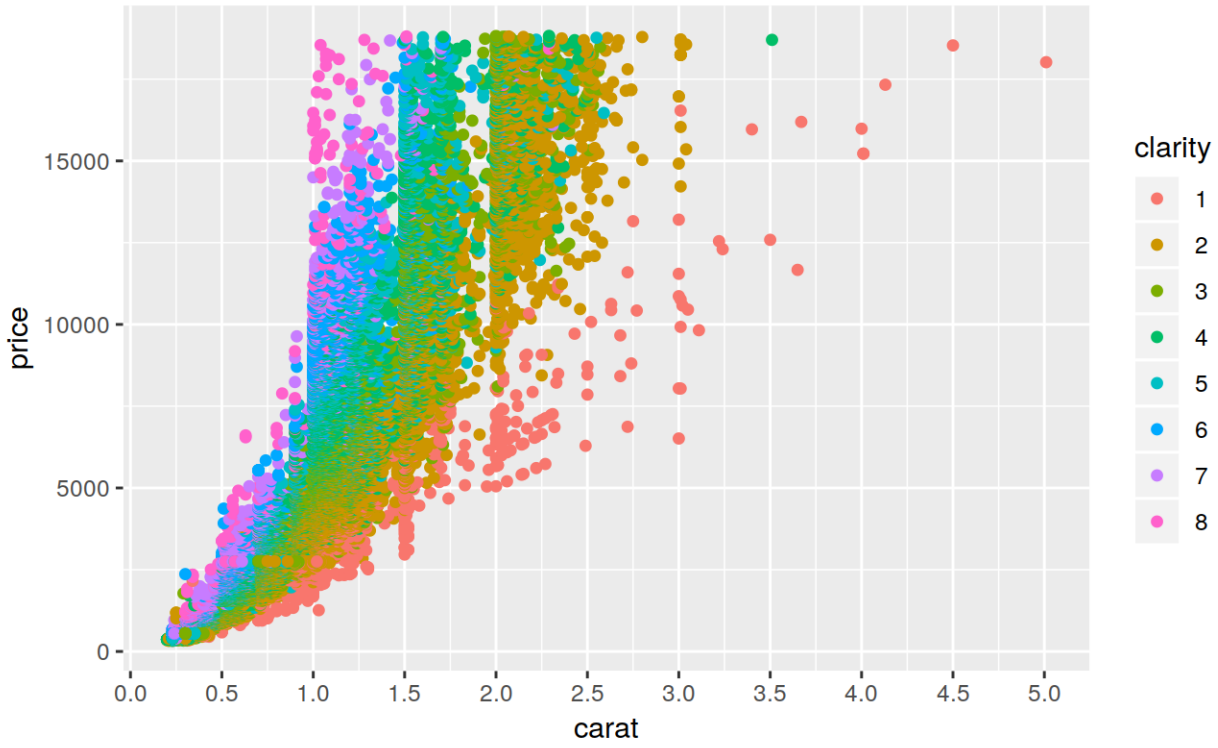

### Example

```
ggplot(data = diamonds_df) +
  geom_point(mapping = aes(x = carat, y = price, color = clarity)) +
  labs(title = "Relationship between weight and price of diamonds",
       x = "Weight in carat",
       y = "Price in dollars",
       color = "Clarity")
```




### Example

```
ggplot(data = diamonds_df) +
  geom_point(mapping = aes(x = carat, y = price, color = clarity)) +
  scale_x_continuous(breaks = seq(0, 5, 0.5)) +
  scale_color_discrete(labels = seq(1, 8))
```


price
15000
10000
5000
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
carat
clarity
1
2
3
4
5
6
7
8