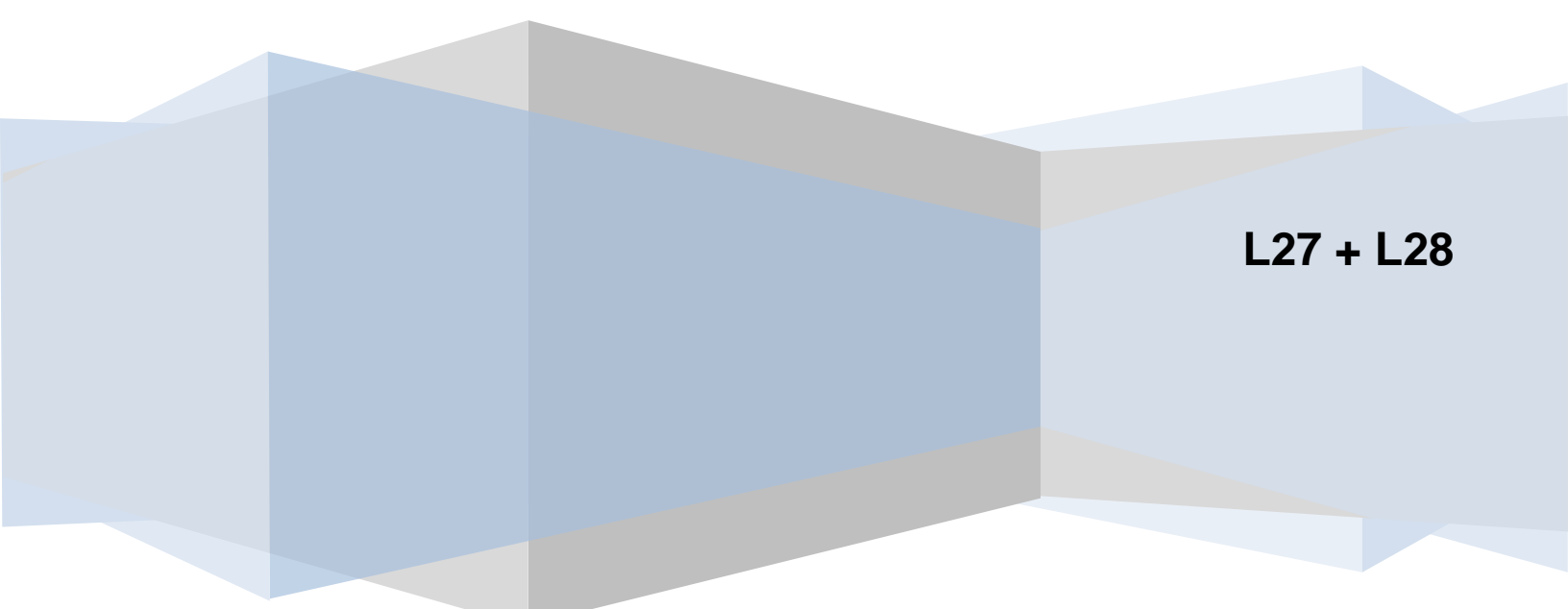


**C S Sahil 19BCE2094**

# **Data Visualization**

**Lab assignment - 1**

***sahil saleem***



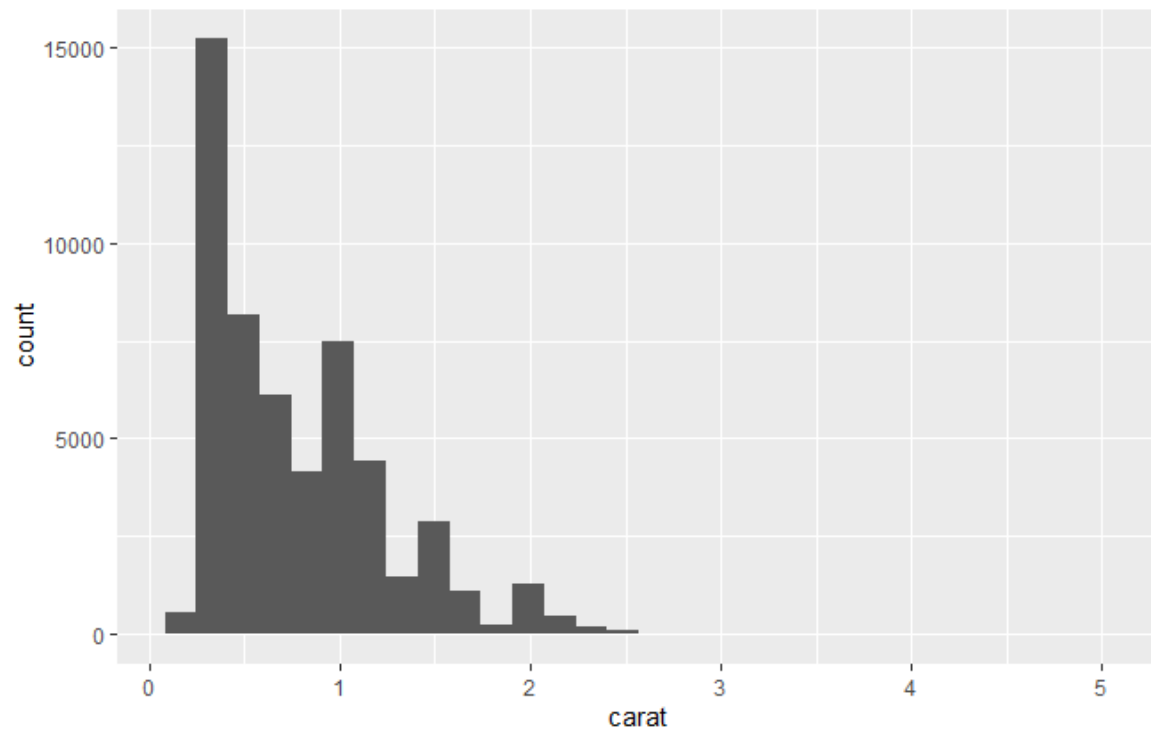
**L27 + L28**

## Question

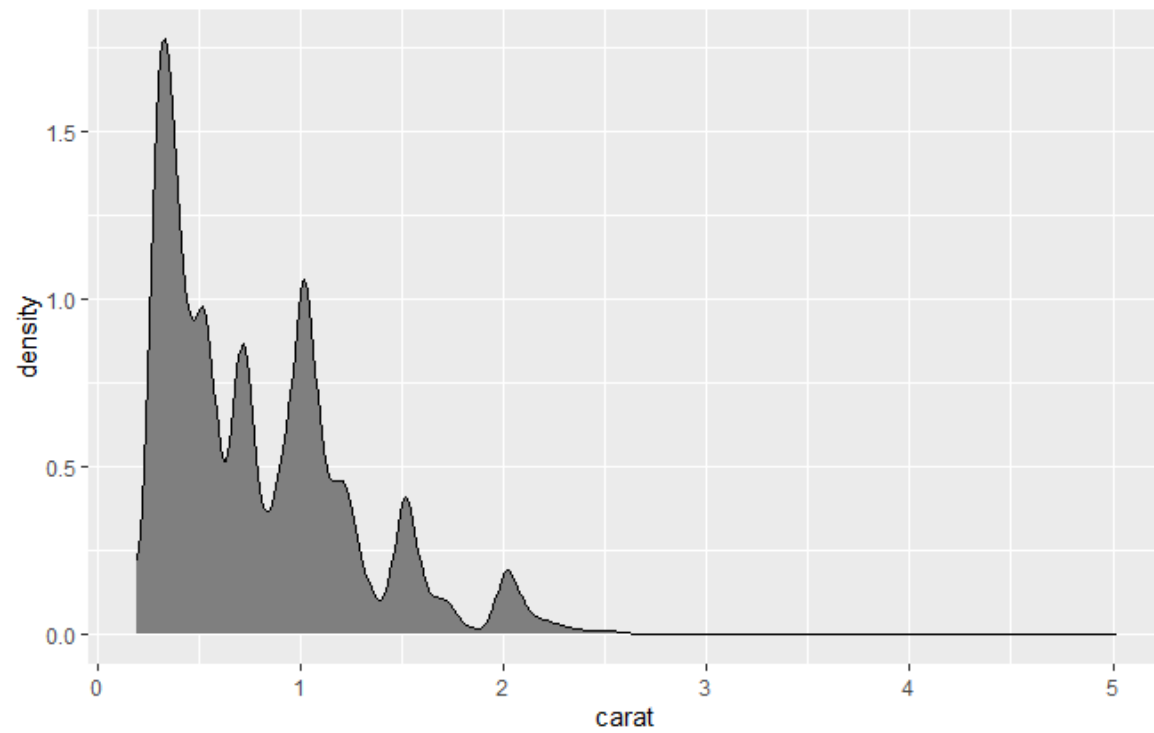
Complete your assignment: Just repeat what ever mentioned in PPT with the mpg dataset which is available in ggplot2.

## Solution

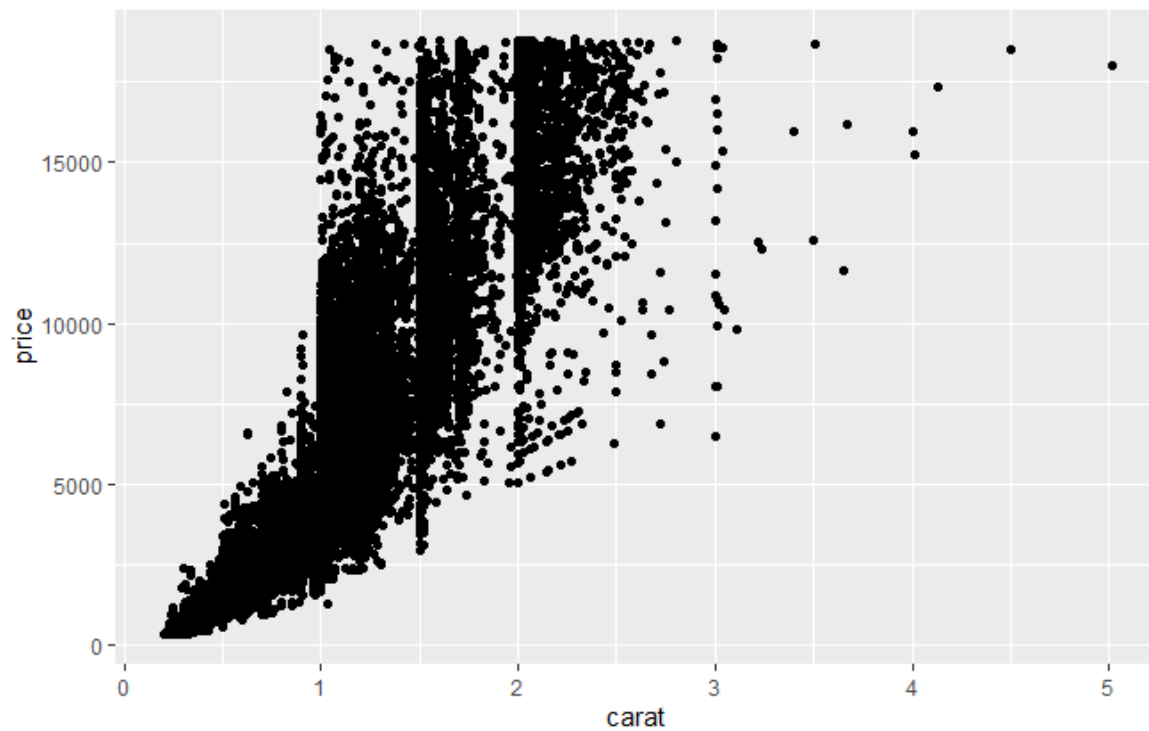
```
> ggplot(data= diamonds)+ geom_histogram(aes(x=carat))  
`stat_bin()` using `bins = 30`. Pick better value with `binwidth`
```



```
> ggplot(data = diamonds) + geom_density(aes(x=carat),fill="grey50")  
> |
```

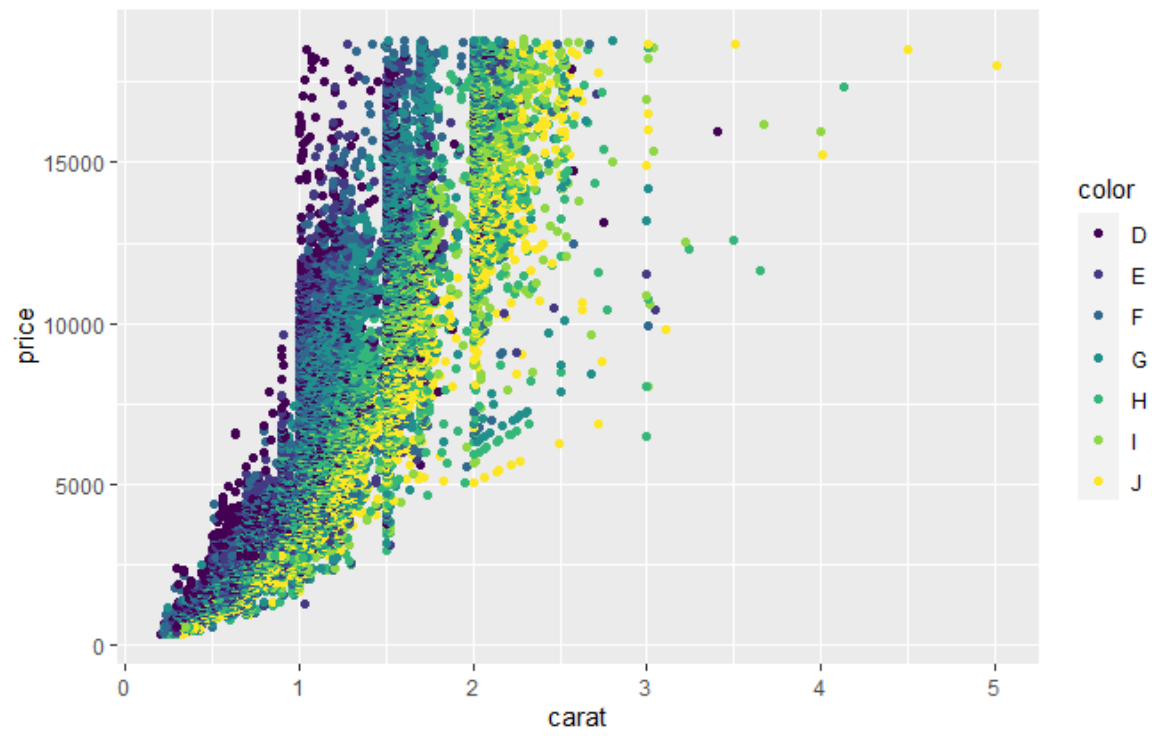


```
> ggplot(diamonds,aes(x=carat,y=price)) + geom_point()  
> |
```

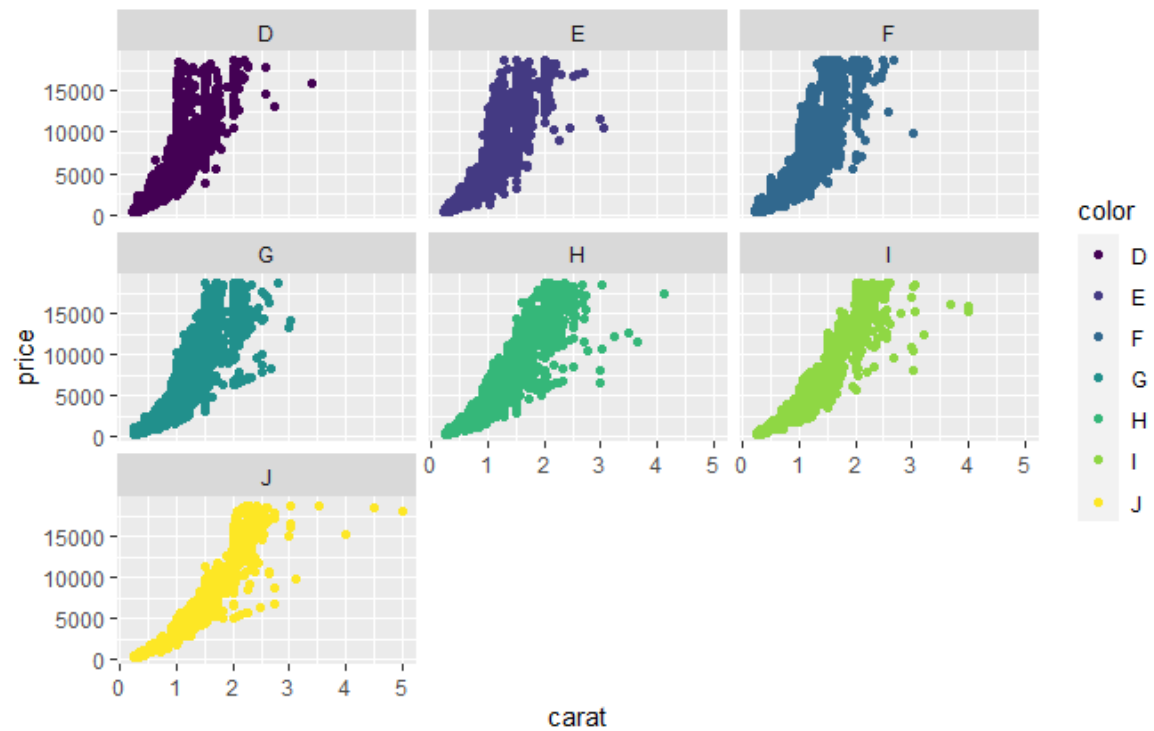


```
> g<- ggplot(diamonds , aes(x=carat,y=price))
```

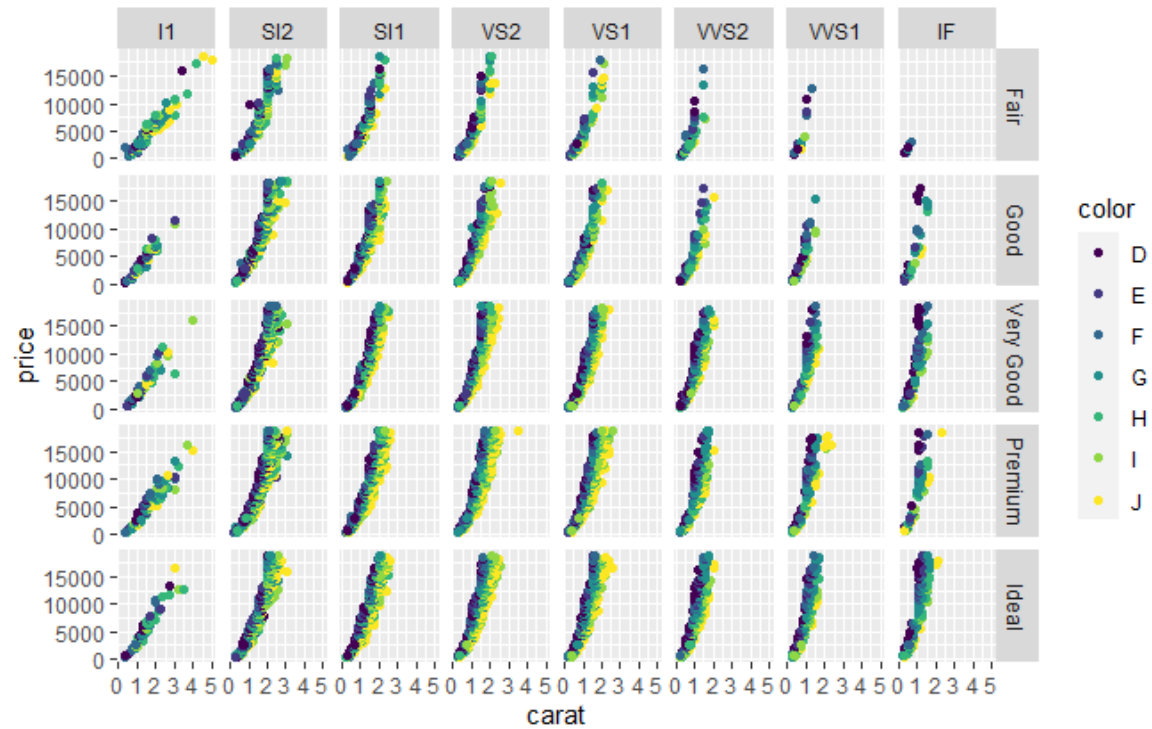
```
> g + geom_point(aes(color = color))  
> |
```



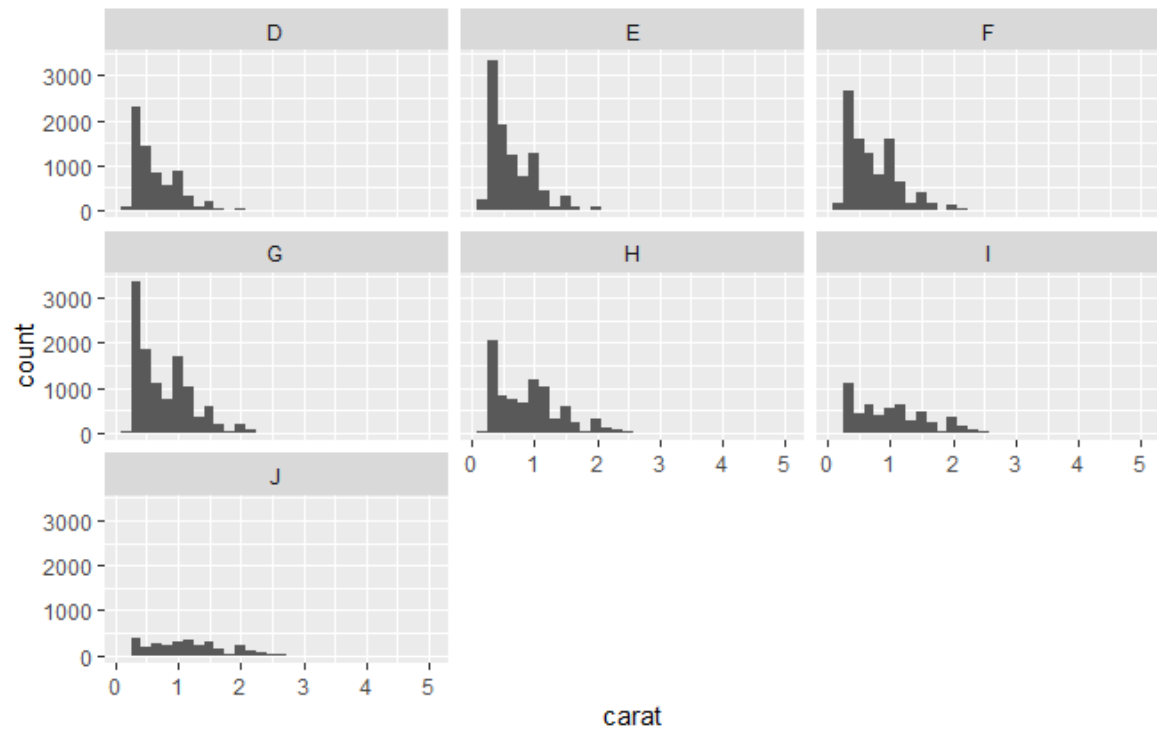
```
> g + geom_point(aes(color = color)) + facet_wrap(~color)
> |
```



```
> g + geom_point(aes(color = color)) + facet_grid(cut~clarity)
```

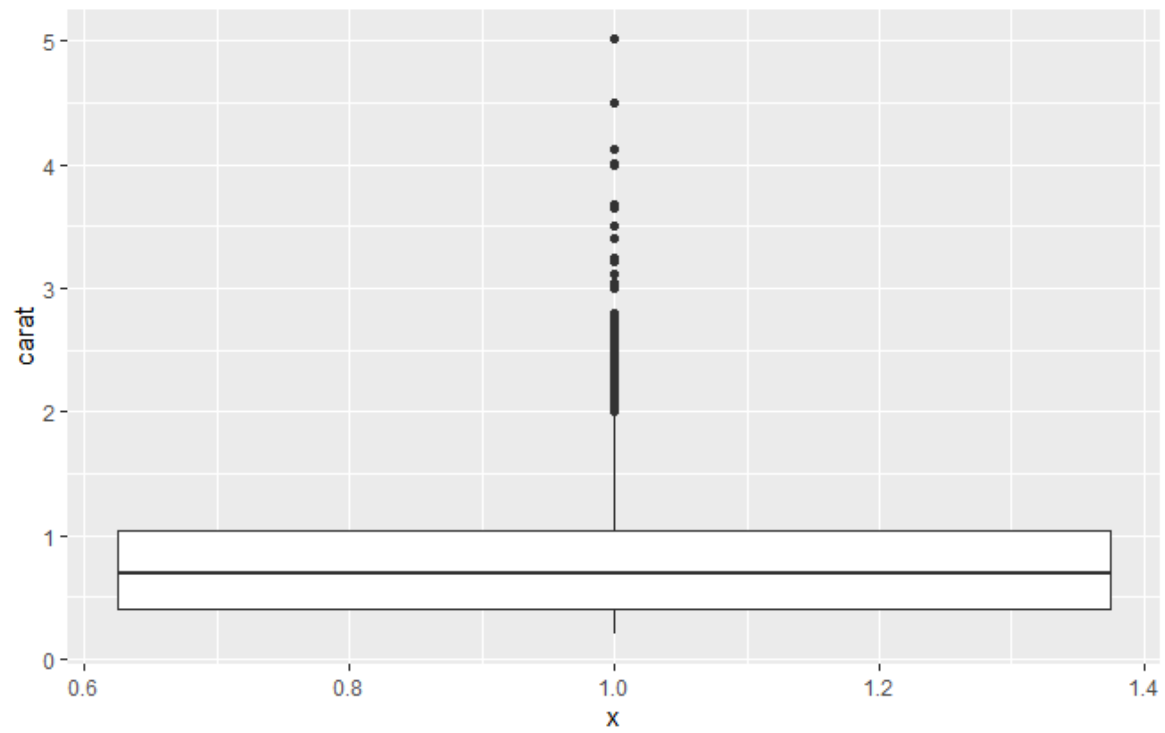


```
> ggplot(diamonds,aes(x=carat)) + geom_histogram() + facet_wrap(~color)
`stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
> |
```

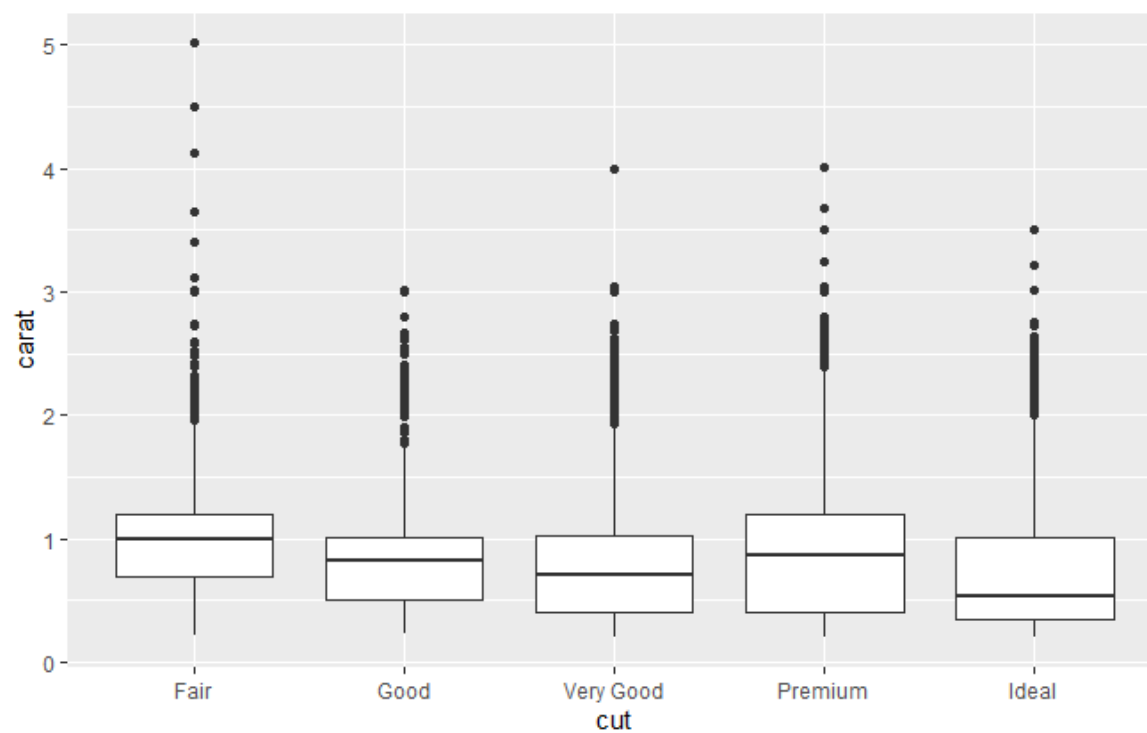




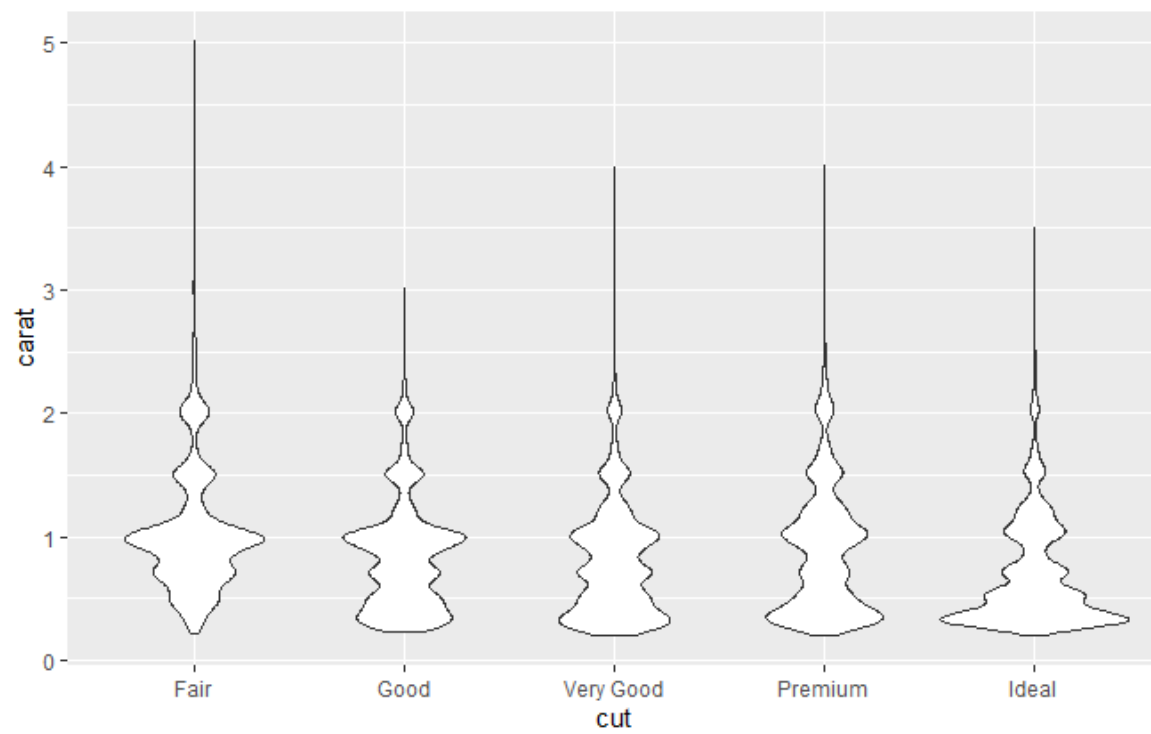
```
> ggplot(diamonds, aes(y=carat, x=1)) + geom_boxplot()
> |
```



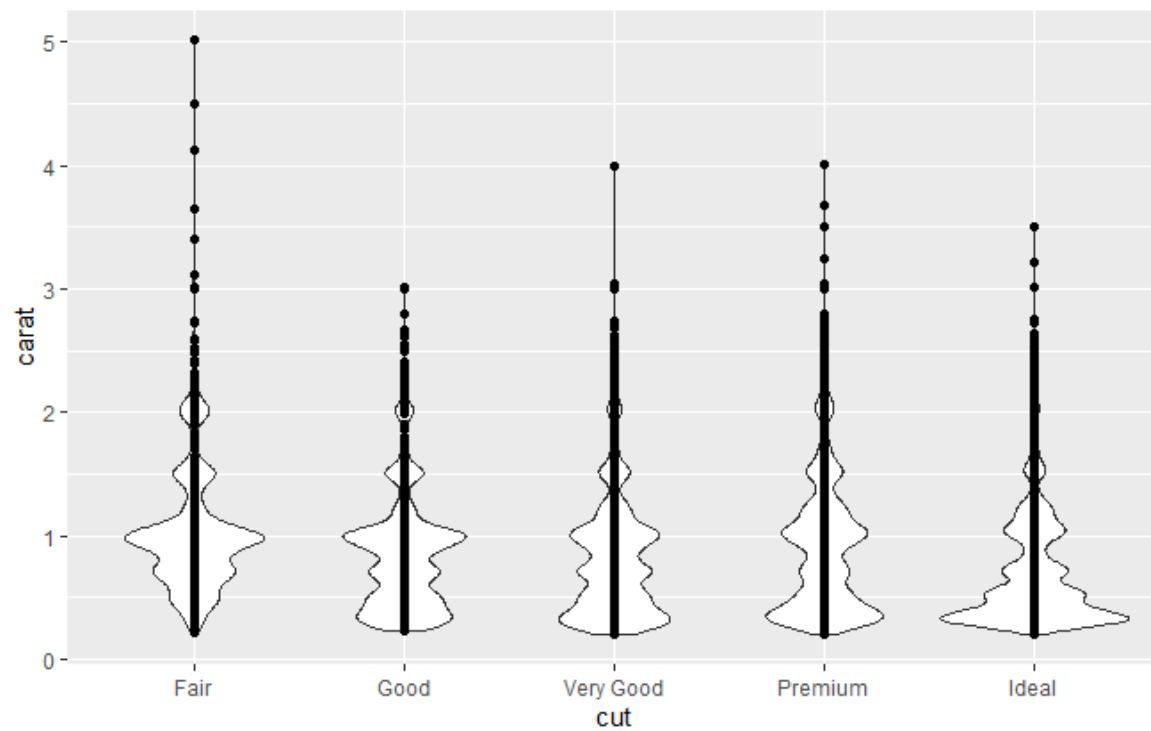
```
> ggplot(diamonds, aes(y=carat, x=cut)) + geom_boxplot()  
> |
```



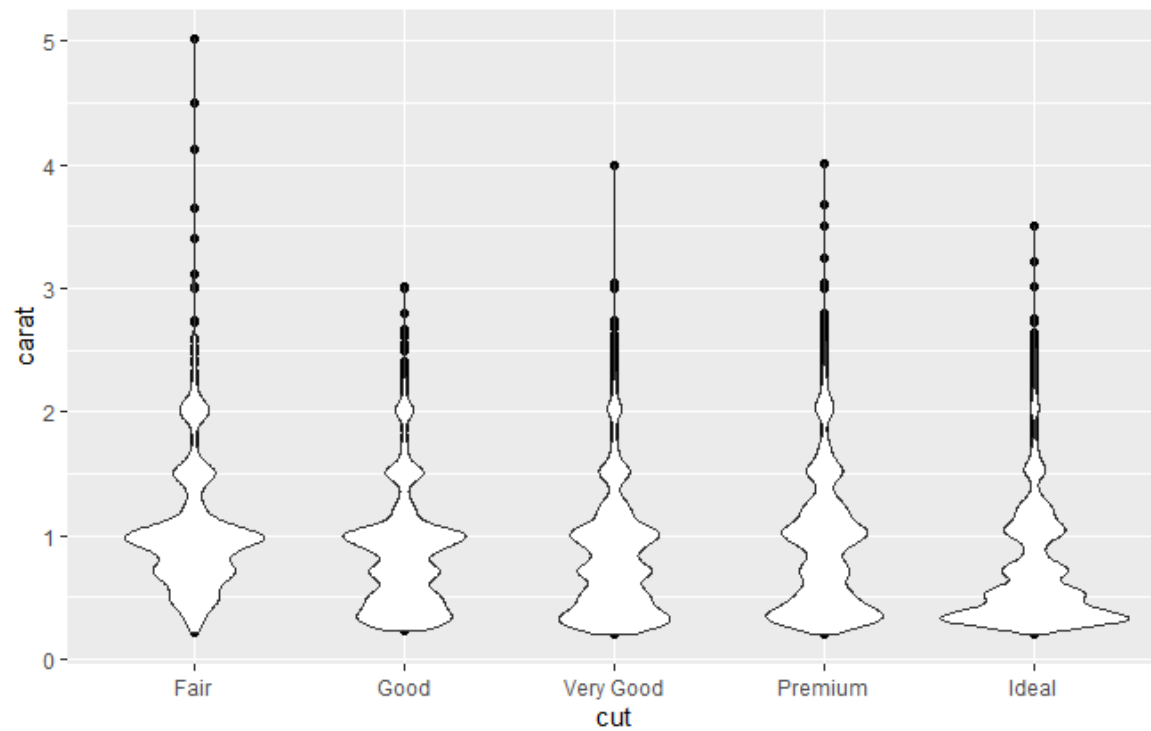
```
> ggplot(diamonds,aes(y=carat,x=cut)) + geom_violin()  
> |
```



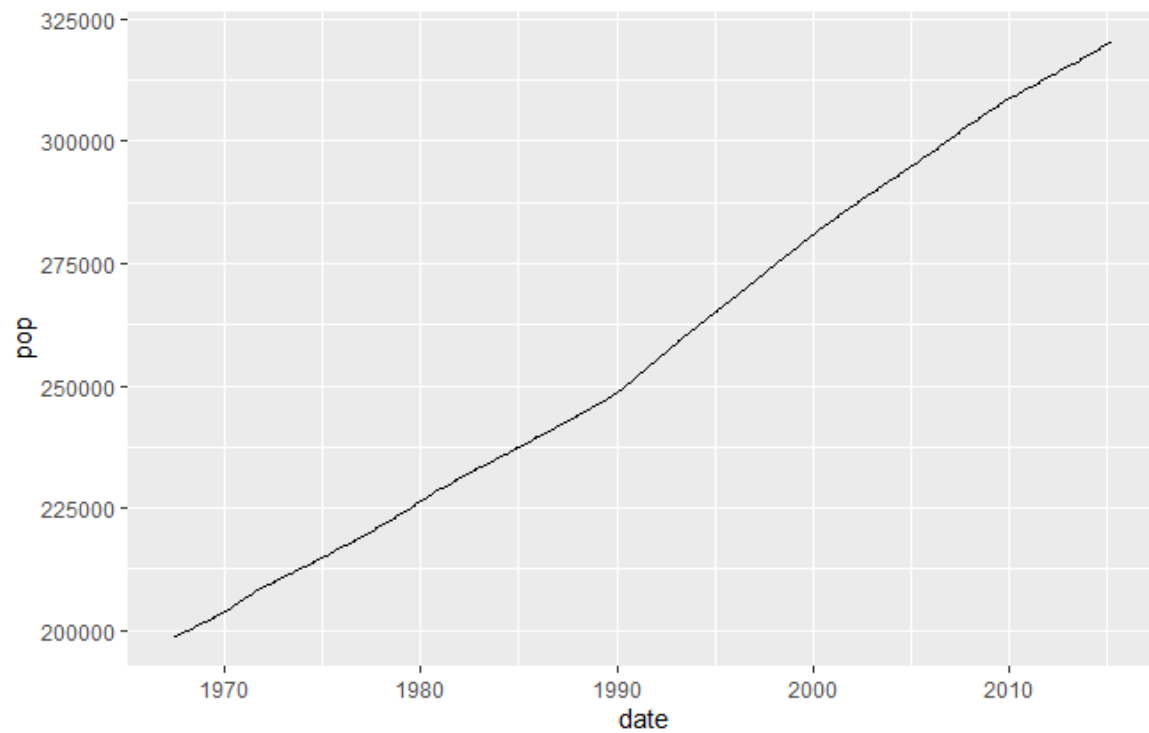
```
> ggplot(diamonds,aes(y=carat,x=cut)) + geom_violin() +geom_point()  
> |
```



```
> ggplot(diamonds, aes(y=carat, x=cut)) + geom_point()+geom_violin()  
> |
```



```
> ggplot(economics, aes(x=date, y=pop)) + geom_line()  
> |
```



```

> library(ggplot2)
> mpg
# A tibble: 234 x 11
  manufacturer model      displ  year   cyl trans      drv      cty   hwy fl      class
  <chr>         <chr>    <dbl> <int> <int> <chr>    <chr> <int> <int> <chr> <chr>
1 audi         a4          1.8  1999     4 auto(l5) f        18     29 p    compact
2 audi         a4          1.8  1999     4 manual(m5) f        21     29 p    compact
3 audi         a4          2    2008     4 manual(m6) f        20     31 p    compact
4 audi         a4          2    2008     4 auto(av) f        21     30 p    compact
5 audi         a4          2.8  1999     6 auto(l5) f        16     26 p    compact
6 audi         a4          2.8  1999     6 manual(m5) f        18     26 p    compact
7 audi         a4          3.1  2008     6 auto(av) f        18     27 p    compact
8 audi         a4 quattro  1.8  1999     4 manual(m5) 4        18     26 p    compact
9 audi         a4 quattro  1.8  1999     4 auto(l5) 4        16     25 p    compact
10 audi         a4 quattro  2    2008     4 manual(m6) 4        20     28 p    compact
# ... with 224 more rows
> ggplot(mpg, aes(x = displ , y = hwy))+geom_point()

```

