# R Notebook

Numtan

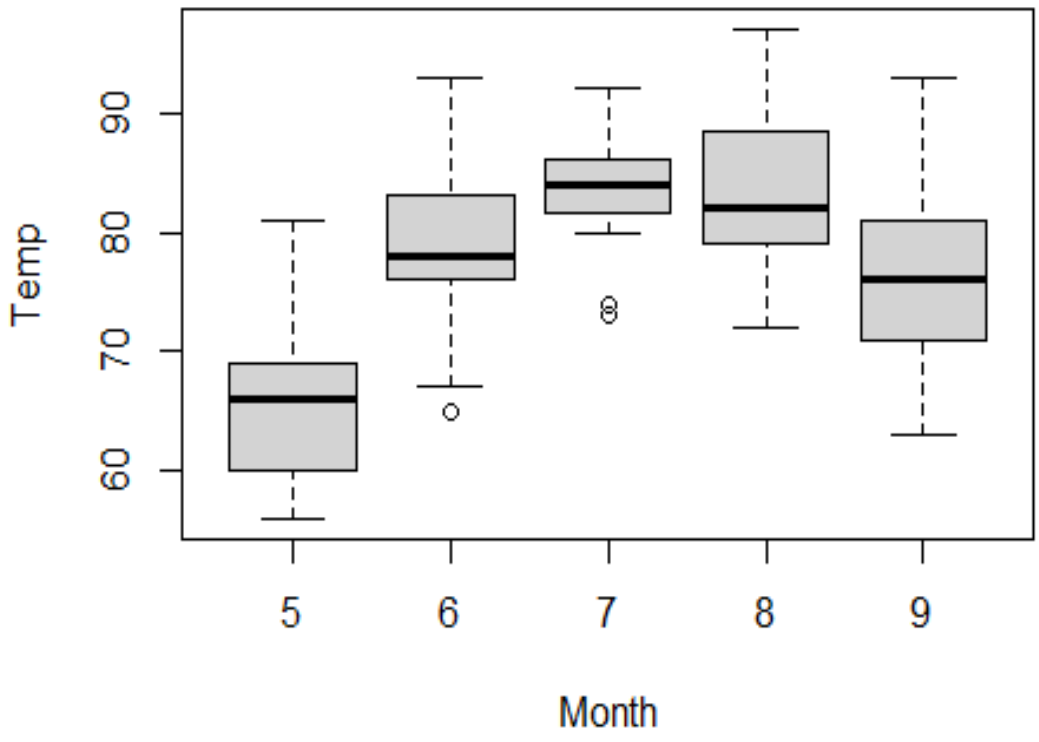
## graph creation by using ggplot2

### from 2 dataset

#### 1. airquality

1.1 In descriptive statistics graphically demonstrating the locality, spread and skewness groups of temperature in each month

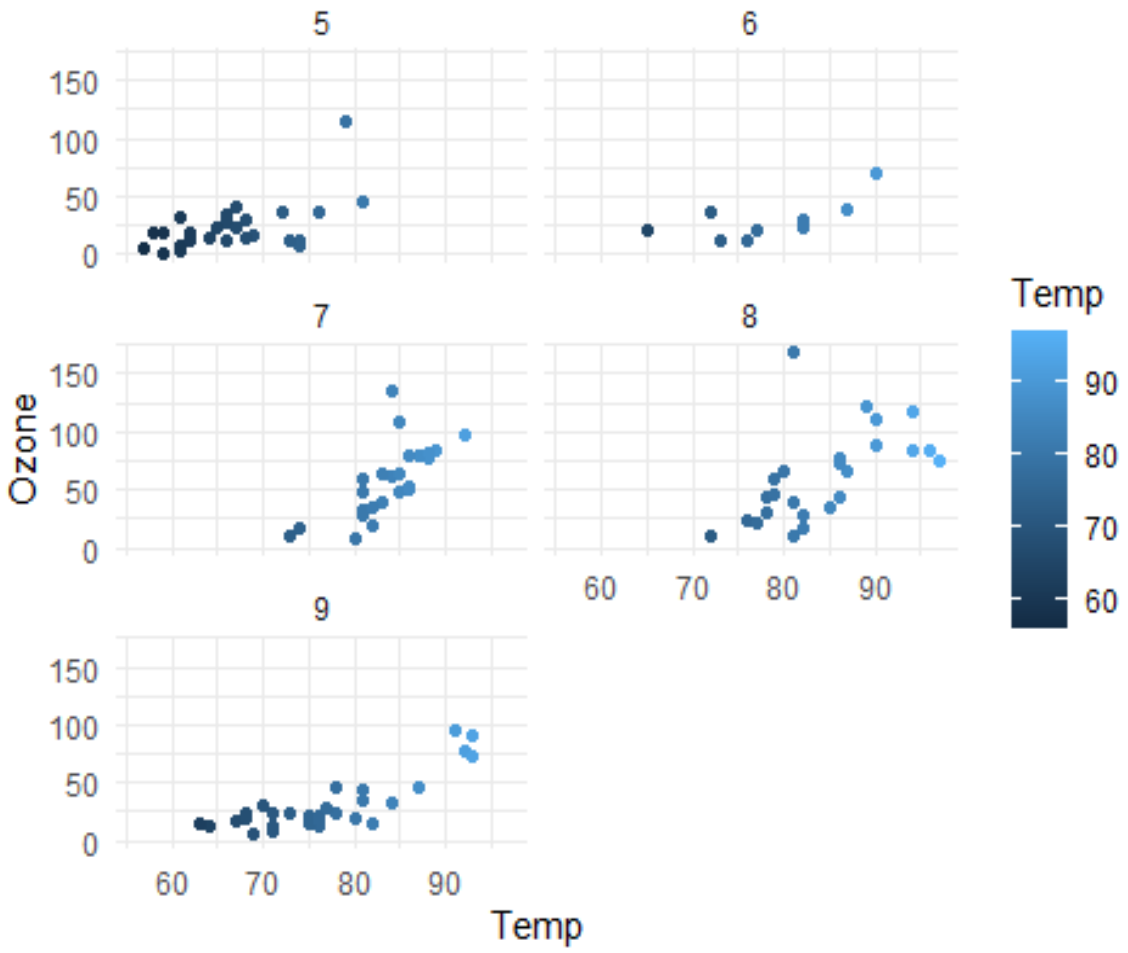
```
library(ggplot2)
library(latexpdf)
boxplot(Temp ~ Month, data = airquality)
```



1.2 relationship between temperature and the ozone value in each month

```
ggplot(airquality, aes(Temp,Ozone, col=Temp)) + geom_point()+theme_minimal()+
facet_wrap(~ Month, ncol=2)

## Warning: Removed 37 rows containing missing values (geom_point).
```



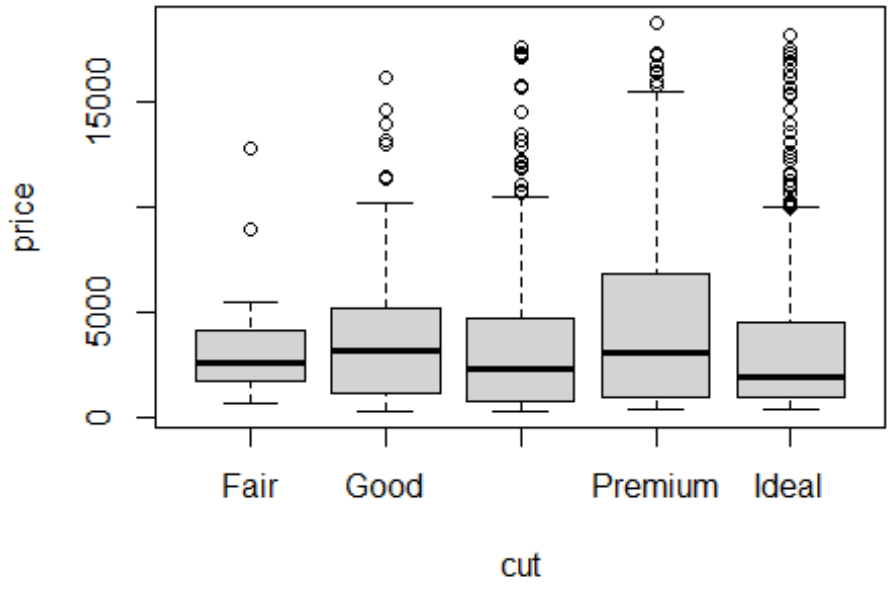
## 2.Diamond

2.1 boxplot of the price value in each cut

```
library(tidyverse)
```

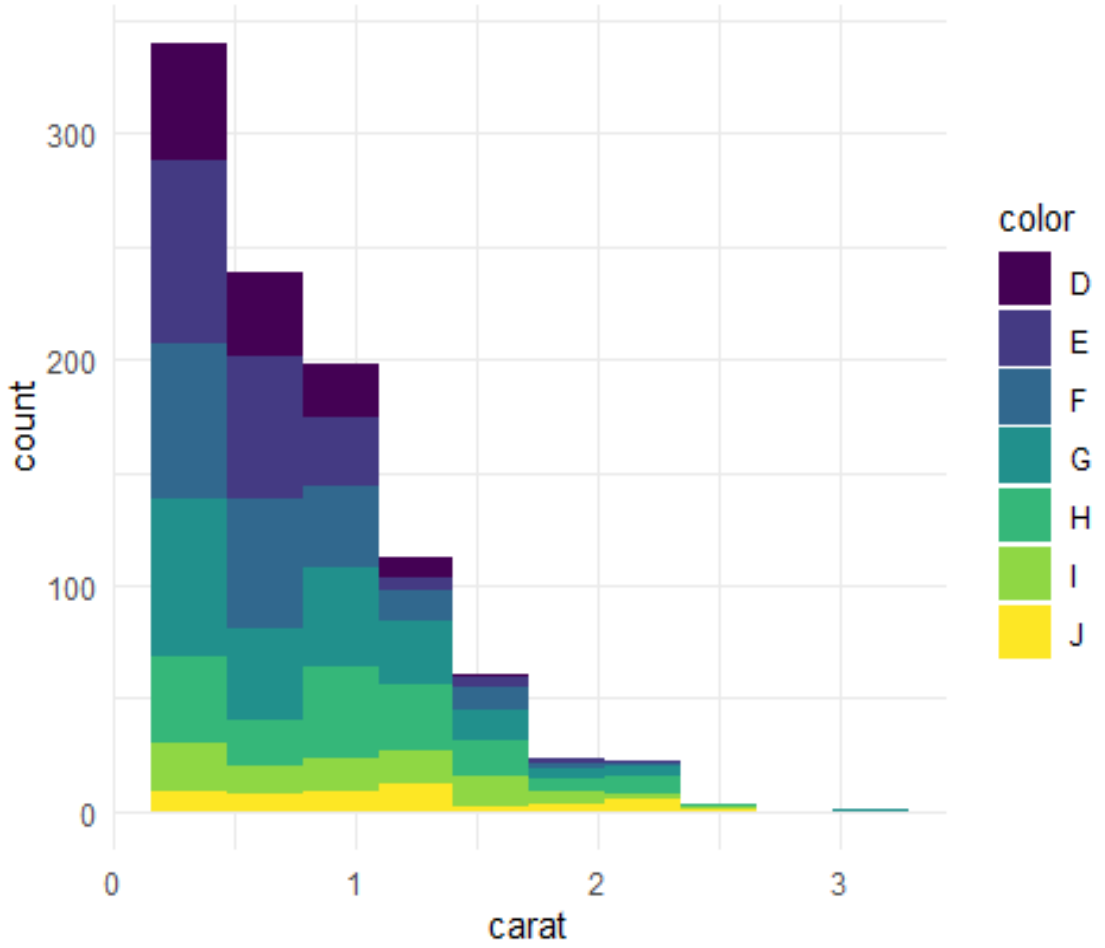
```
## ── Attaching packages ─────────────────────────────────────── tidyverse
1.3.2 ──
## ✓ tibble  3.1.8      ✓ dplyr   1.0.10
## ✓ tidyr   1.2.0      ✓ stringr 1.4.1
## ✓ readr   2.1.2      ✓ forcats 0.5.2
## ✓ purrr   0.3.4
## ── Conflicts ────────────────────────────────────────── tidyverse_conflicts() ──
## ✖ dplyr::filter() masks stats::filter()
## ✖ dplyr::lag()    masks stats::lag()
```

```
boxplot(price~cut, data = sample_n(diamonds,size = 1000))
```



2.2 distribution of diamond's carat and show the color propotion

```
ggplot(sample_n(diamonds,size = 1000), aes(carat,
fill=color))+geom_histogram(bins = 10)+theme_minimal()
```



2.2 Relationship between carat and price in each diamond's color

```
ggplot(sample_n(diamonds,size = 1000),aes(carat,price,col=color)) +
geom_point() +geom_smooth(method = "lm") +
facet_wrap(~color,ncol=3)+theme_minimal()

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