

# Tutorial - Command lines

Ariane Ducellier

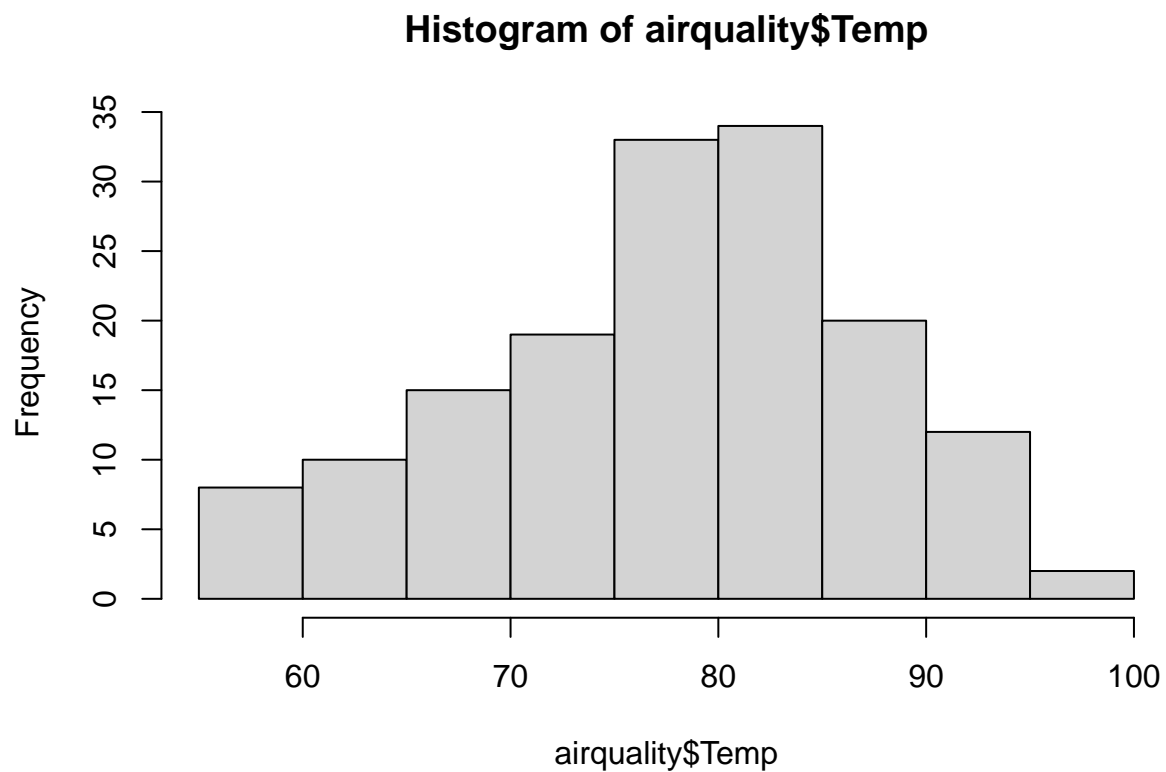
7/18/2023

```
library(ggplot2)
library(Lock5Data)
```

## Tutorial

### Histograms

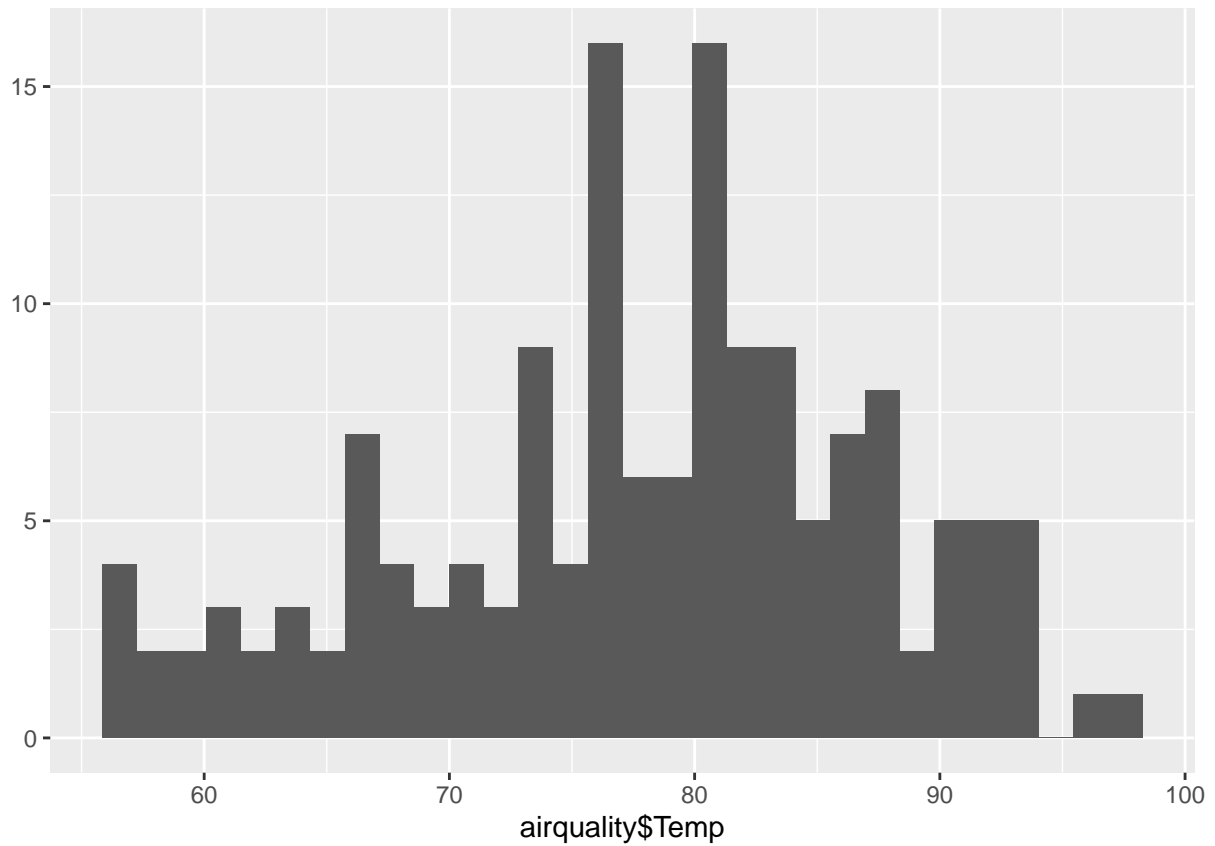
```
hist(airquality$Temp)
```



```
qplot(airquality$Temp)
```

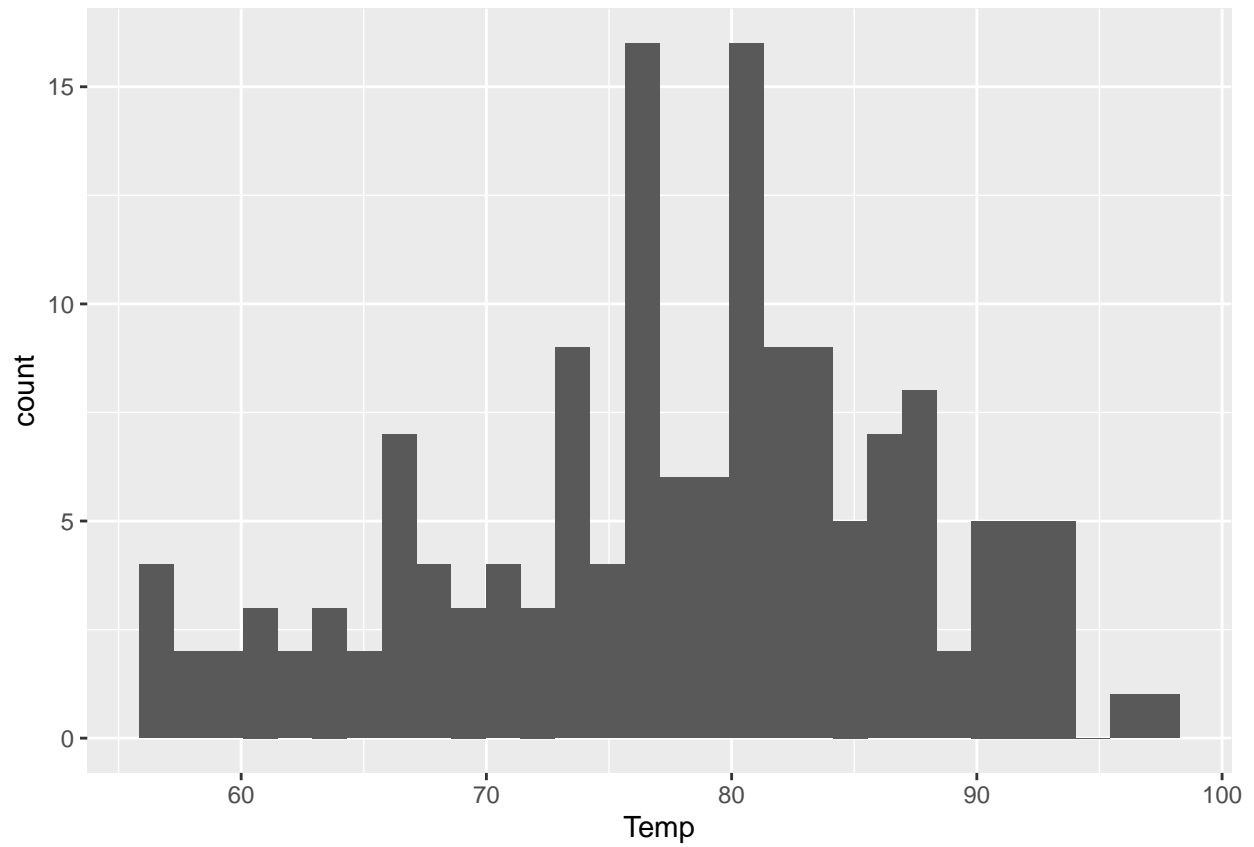
```
## Warning: 'qplot()' was deprecated in ggplot2 3.4.0.
```

```
## 'stat_bin()' using 'bins = 30'. Pick better value with 'binwidth'.
```



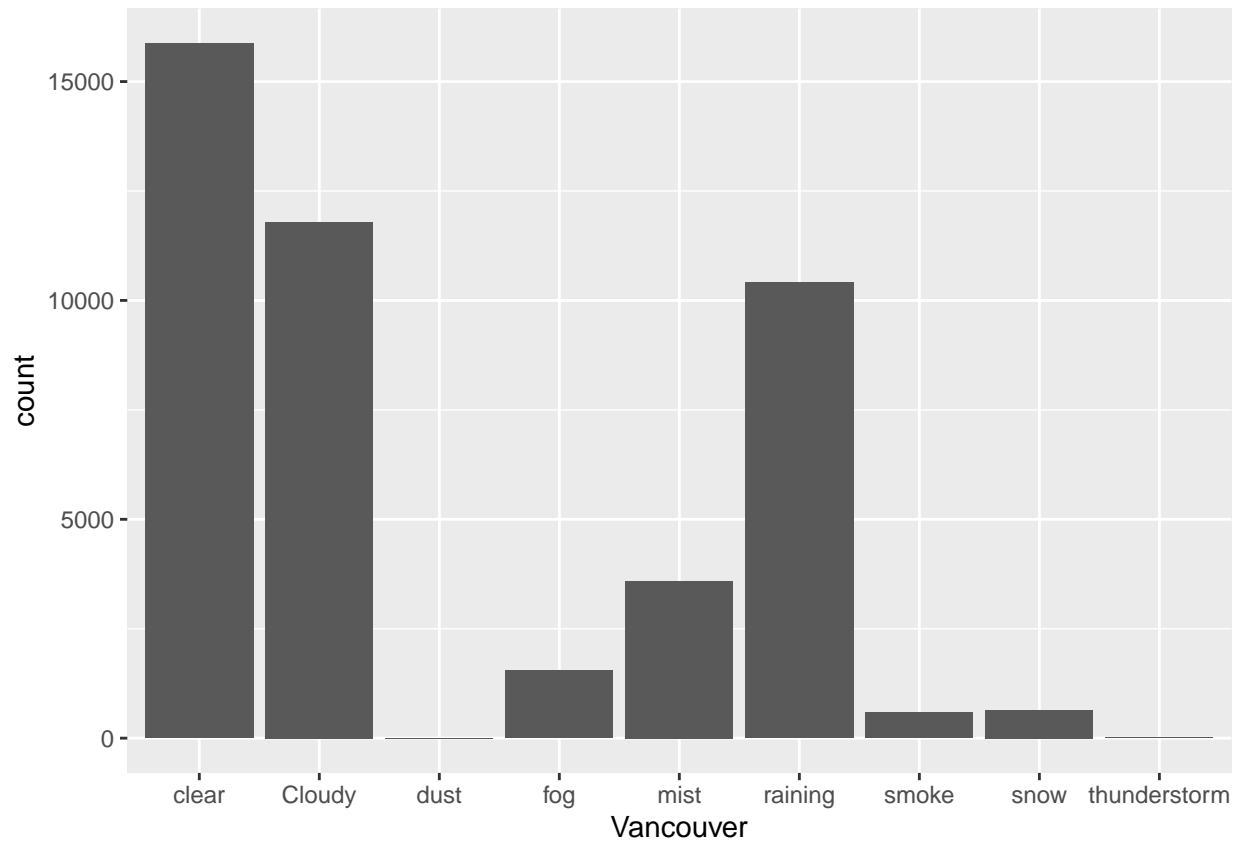
```
ggplot(airquality, aes(x=Temp)) + geom_histogram()
```

```
## 'stat_bin()' using 'bins = 30'. Pick better value with 'binwidth'.
```



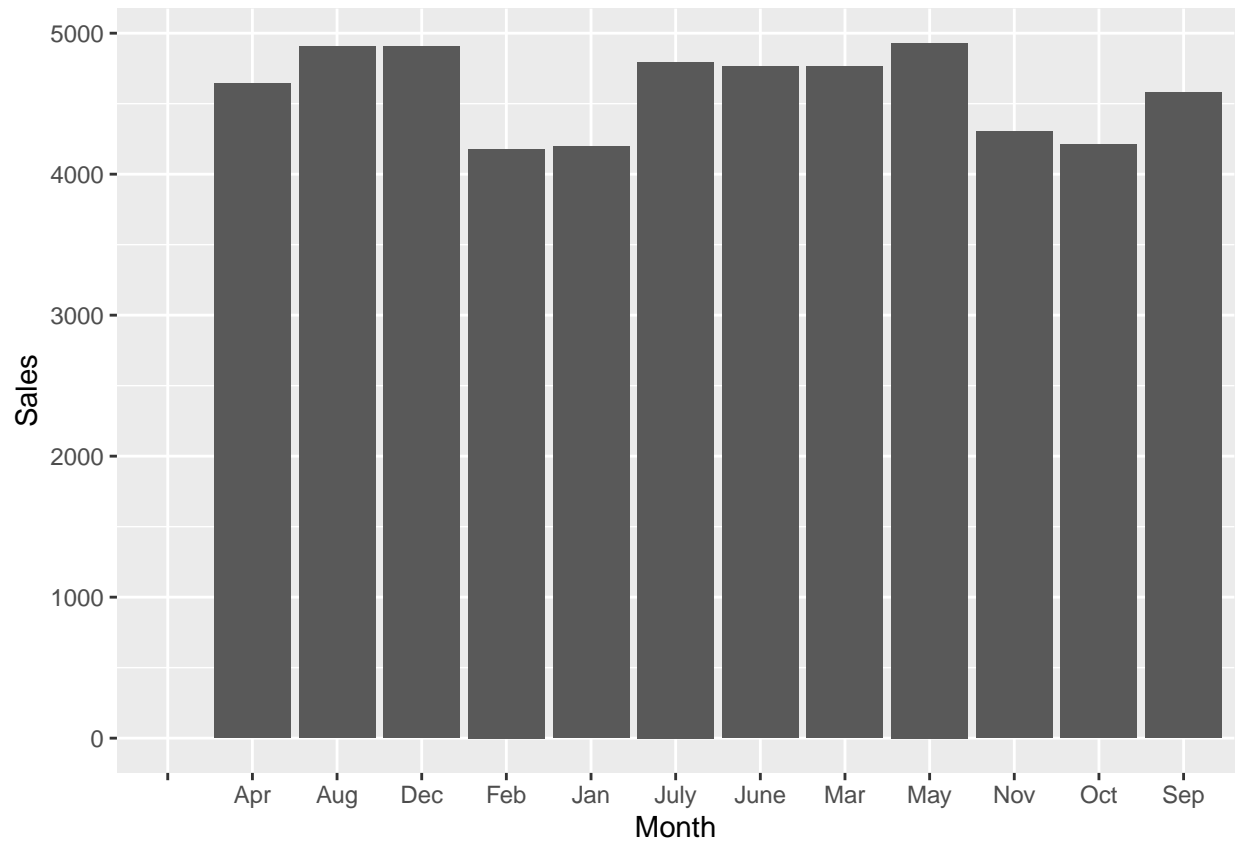
## Bar plots

```
df_desc <- read.csv("../data/historical-hourly-weather-data/weather_description.csv")
ggplot(df_desc, aes(x=Vancouver)) + geom_bar()
```



```
ggplot(RetailSales, aes(x=Month, y=Sales)) + geom_bar(stat="identity")
```

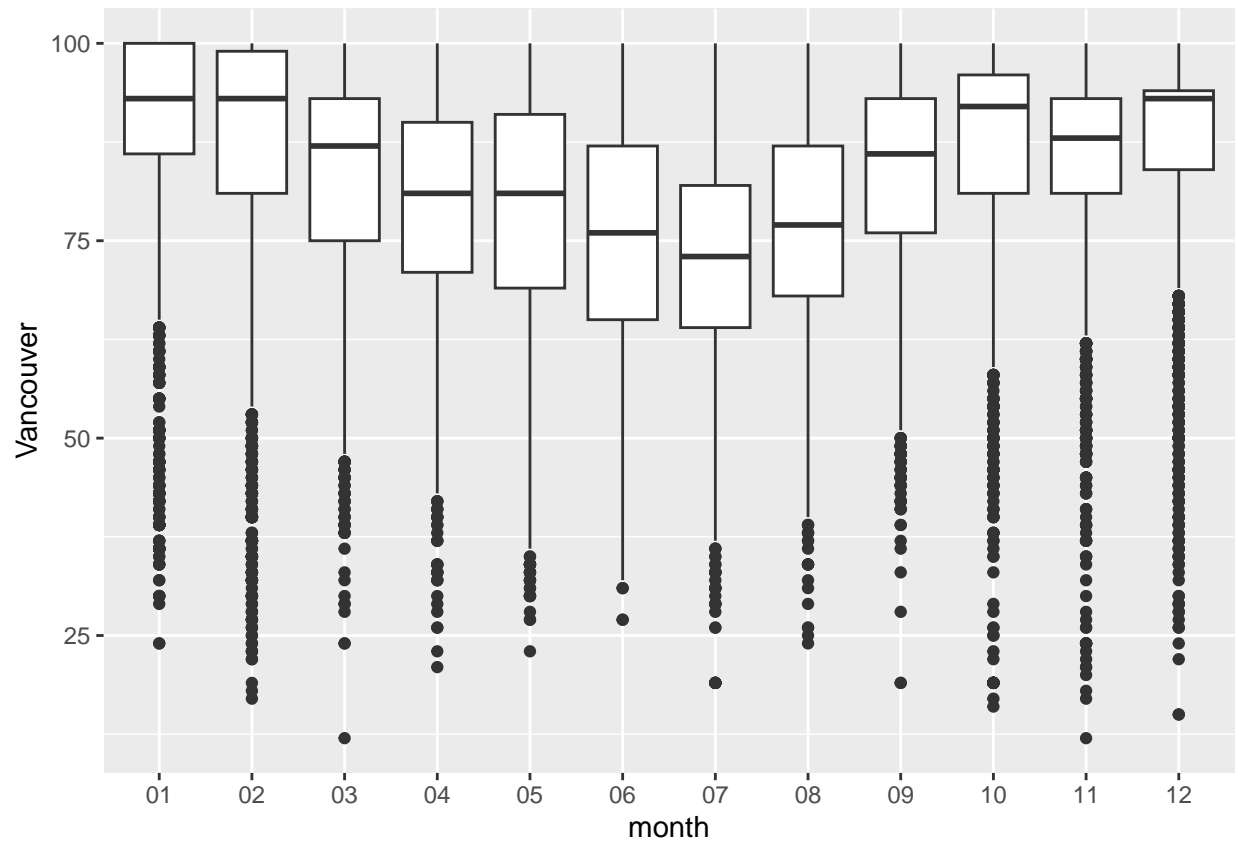
```
## Warning: Removed 15 rows containing missing values ('position_stack()').
```



## Box plots

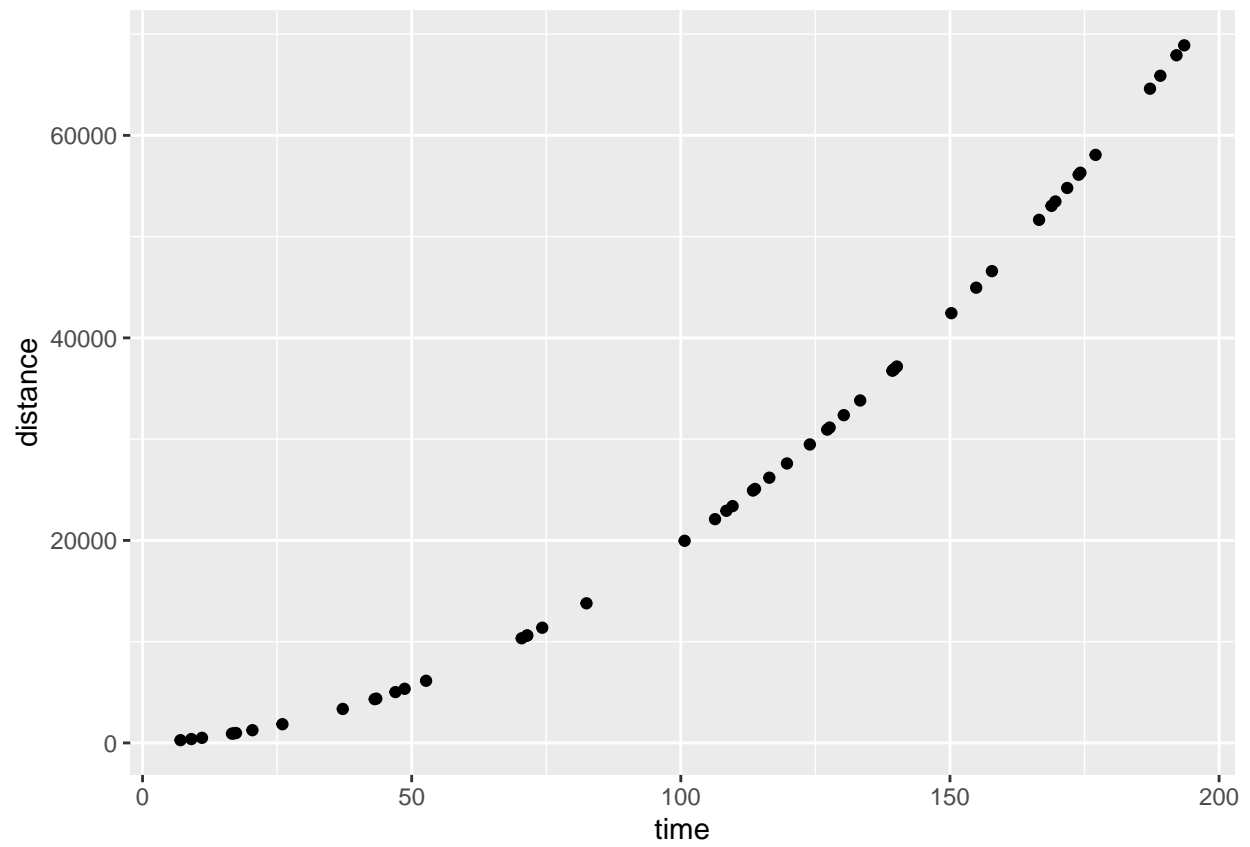
```
df_hum <- read.csv("../data/historical-hourly-weather-data/humidity.csv")
df_hum$datetime <- as.character(df_hum$datetime)
df_hum$month <- substr(df_hum$datetime, 6, 7)
ggplot(df_hum, aes(x=month, y=Vancouver)) + geom_boxplot()
```

```
## Warning: Removed 1826 rows containing non-finite values ('stat_boxplot()').
```



## Scatter plots and line plots

```
a = 3.4
v0 = 27
time <- runif(50, min=0, max=200)
distance <- sapply(time, function(x) v0 * x + 0.5 * a * x^2)
df <- data.frame(time,distance)
ggplot(df, aes(x=time, y=distance)) + geom_point()
```



```
ggplot(df, aes(x=time, y=distance)) + geom_line()
```

