

```
library(dplyr)
```

```
rladies_global %>%  
  filter(city == 'Berlin')
```



#1 Hands-on Data visualization with ggplot2



Hello!

I am Christin :)

I would like to introduce you to **R Notebooks** and how we can easily create beautiful graphs with Hardley Wickhams package **ggplot2**



1.

Let's get started!

Get to know our GitHub repo and find all required material:

github.com/rladies/meetup-presentations_berlin/

- Download R-project
- Copy slides and tutorial material
- Documentation: How to install R and R Studio



2.

R Notebooks

A beautiful combination of coding and reporting results

http://rmarkdown.rstudio.com/r_notebooks.html



3.

Grammar of ggplot2

Detailed documentation

<http://ggplot2.org>

You want more **ggplot2**? Have a look at extension packages

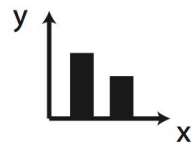
<http://www.ggplot2-exts.org>

General principle of **ggplot2**

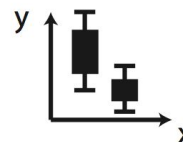
data

x	y

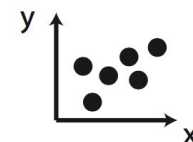
`ggplot(data, aes(x,y))`



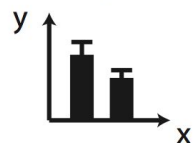
`+ geom_bar()`



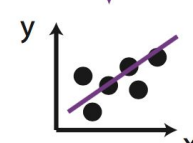
`+ geom_boxplot()`



`+ geom_point()`



`+ geom_errorbar()`



`+ geom_smooth()`

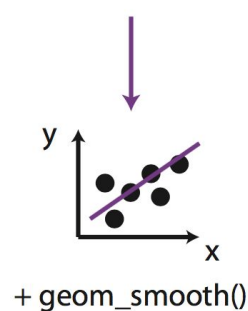
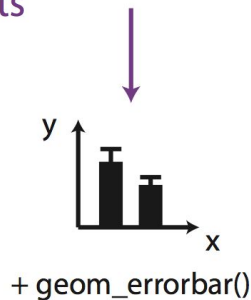
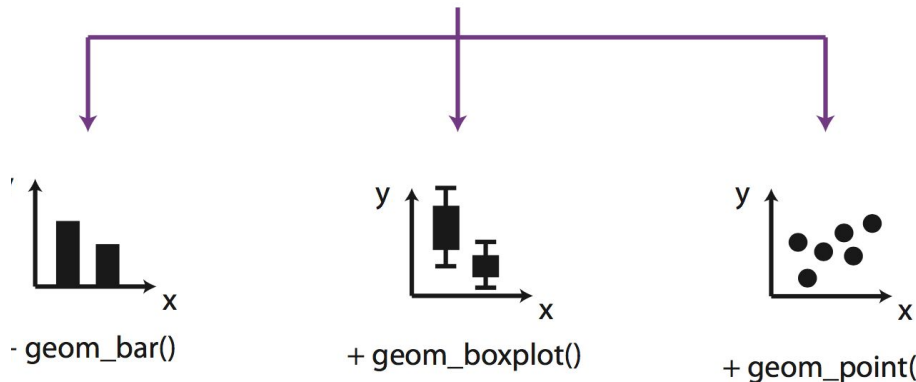
General principle of **ggplot2**

- + `geom_xy()` - geometric objects
- + `stat_xy()` - statistics
- + scales
- + `coord_xy()` - coordinate systems
- + `facet_xy()` - faceting
- + `position_xy()` - Position adjustments
- + `theme_()` - Themes (non-data)

data

x	y

`ggplot(data, aes(x,y))`



4.

Dataset: diamonds

Description of 54'000 gemstones based on key characteristics

- Carat, color, clarity, cut
- Total depth, table, depth, width, height
- Price



5. Tutorial

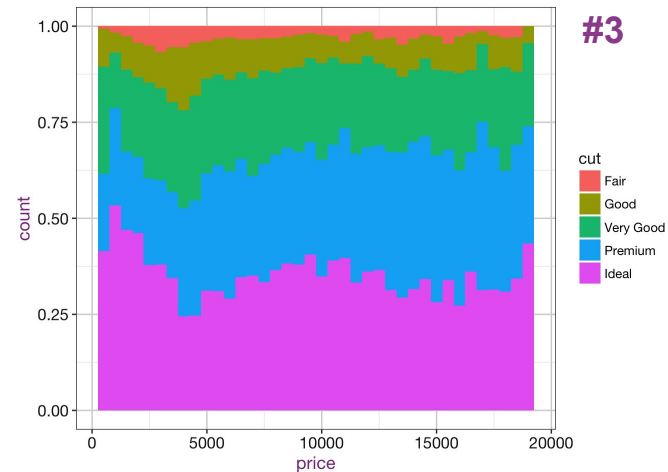
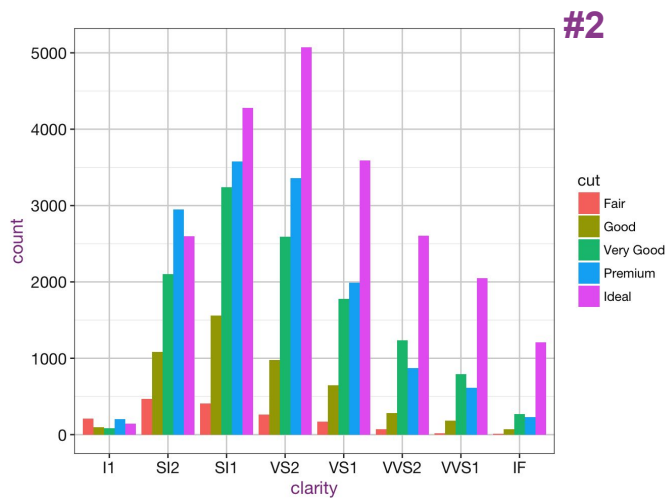
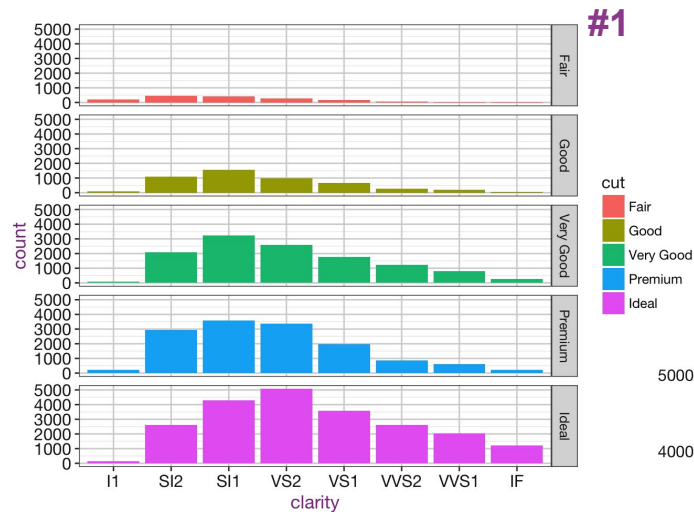
Let's get started!

PROGRAMMING








Now it's your turn!





We're Chrissy, Hanna & Noa

We recently got together to form the Berlin chapter of R-Ladies. You can follow our activity (and help us spread the word) on   [@RLadiesBerlin](https://twitter.com/RLadiesBerlin) and sign up for upcoming events on  [rladies-berlin](https://www.meetup.com/rladies-berlin).