

```
library(dplyr)
```

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



#2

Making fRiends with: ggplot2



Hello!

I am Pam

And today I am very happy to share with you some tips on how to create *fun* plots using **ggplot2**



Smoothly sliding into ggplot2

1. First
steps

2. Base
Graphics vs
ggplot2

3. ggplot2 &
Grammar of
Graphics

4. 
(or hands-on
stuff)

Pro tip: Do stop and ask me at any time!



1. First steps

Take a visit to the GitHub repo

https://github.com/pamelamatias/RLadies_MUC

and either clone or download the files we'll be using 😊



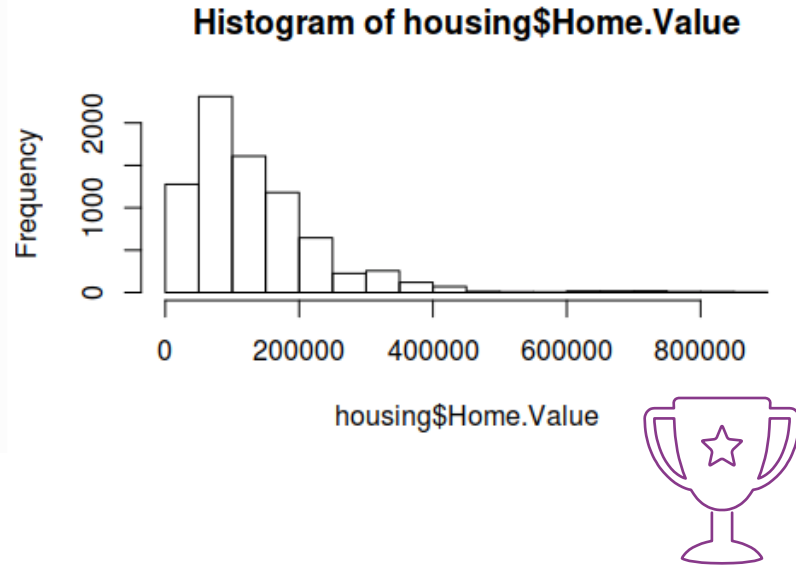
2.

Base Graphics vs ggplot2

or why should I try something new?

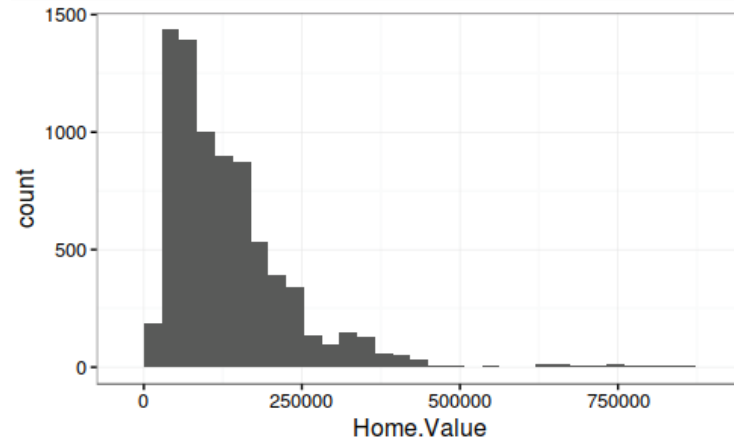
Base graphics

```
hist(housing$Home.Value)
```



ggplot2

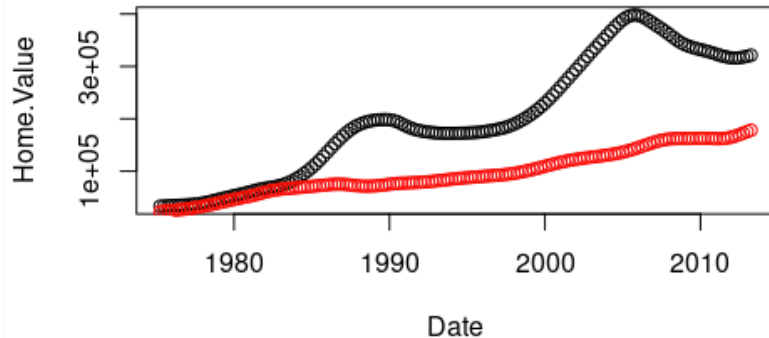
```
library(ggplot2)
ggplot(housing, aes(x = Home.Value)) +
  geom_histogram()
```



more verbose for simple plots
):

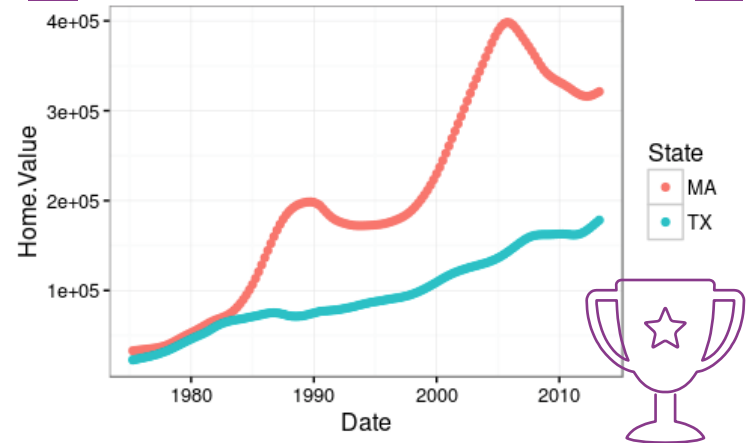
Base graphics

```
plot(Home.Value ~ Date,
     data=subset(housing, State == "MA"))
points(Home.Value ~ Date, col="red",
       data=subset(housing, State == "TX"))
legend(1975, 400000,
      c("MA", "TX"), title="State",
      col=c("black", "red"),
      pch=c(1, 1))
```



ggplot2

```
ggplot(subset(housing, State %in% c("MA", "TX")),
       aes(x=Date,
           y=Home.Value,
           color=State))+
  geom_point()
```



Less verbose for complex graphs!



3.

Grammar of Graphics & ggplot2

or “how to make sense out of all of those layers”

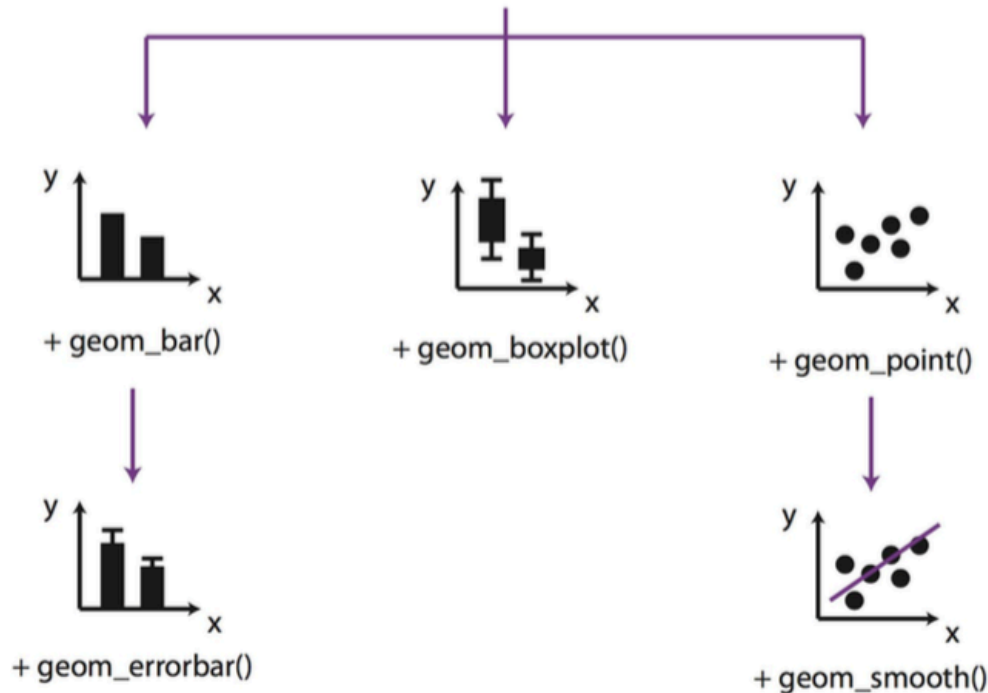
Grammar of graphics & ggplot2

- + `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))`



```
rladies_global %>%
  diagram.source(city == 'Berlin')
```

“ *The emphasis in ggplot2 is reducing the amount of thinking time by making it easier to go from the plot in your brain to the plot on the page*”

—Hadley Wickham, 2012

(as cited in Christine Zhang’s “Storytelling with Data” Workshop at Boston University)



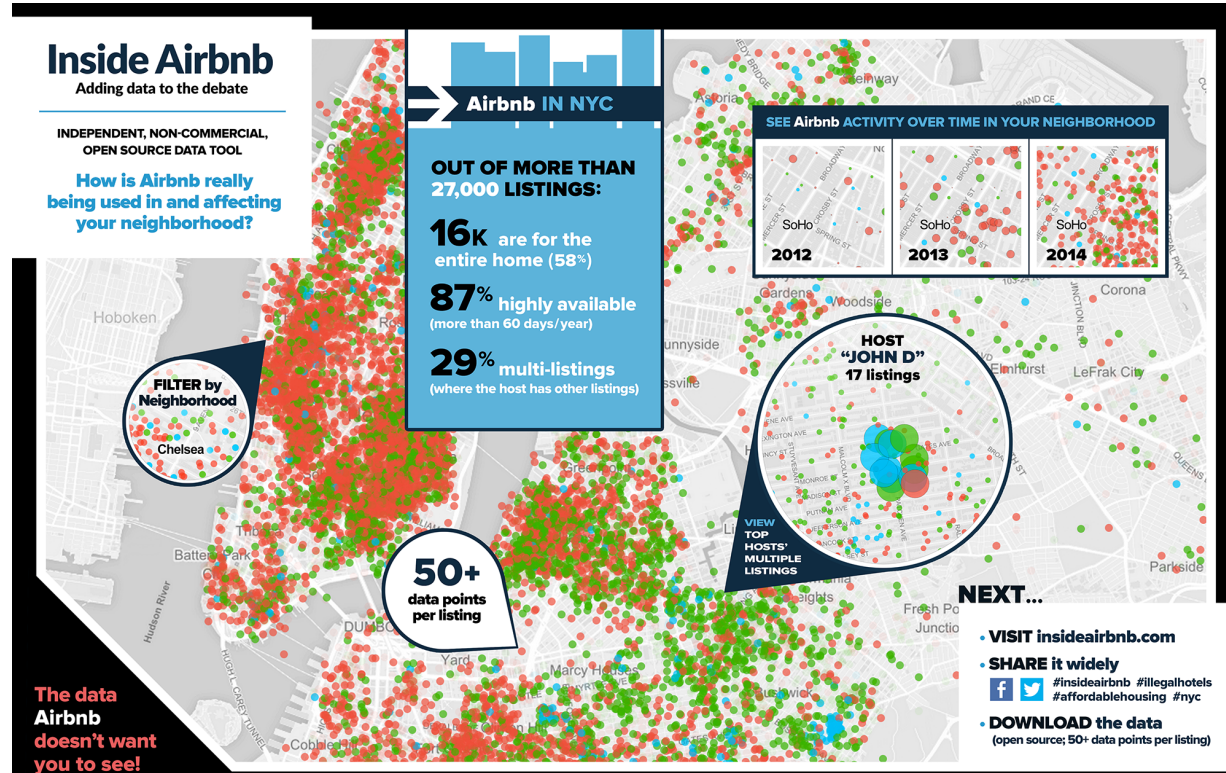
4.



(or hands-on stuff!)

Dataset

Inside Airbnb





Thanks!



Now let's go for cookies & beer!

Not necessarily at the
same time though...

Let's say then
cookies | beer!

