Survival kit

Special characters

Some characters are somewhat difficult to write on the Czech keyboard:

Character	Shortcut	Alterantive
#	Alt + 35	Alt + x
$	Alt + 36	Alt + ů
&	Alt + 38	Alt + c
~	Alt + 126	Alt + +
|		Alt + w
>		Alt + .
{}		Alt + b/n
[]		Alt + f/g
'		Alt + ý + Space
^	Alt + 94	

RStudio shortcuts

Sign/Action	Shortcut
->	Ctrl + Alt + -
%>%	Ctrl + Shift + m
run selected row	Ctrl + Enter
run whole script	Ctrl + Shift + Enter
comment line	Ctrl + Shift + c
insert section	Ctrl + Shift + r

Function reference

`code` description

Basics

`install.packages("packagename")` installs a package
`library(packagename)` attaches a package from a library

Getting help on anything:
`?function` equals `help(function)`
`??function`

Lookign at data:
`head(x)` and `tail(x)`
View(x)

Summary functions

`mean(x)` returns mean `meadian(x)` returns median

Data manipulation with `dplyr`

load package `library(dplyr)`

`%>%` *pipe* operator, `x %>% f()` equals `f(x)`, allows chaining functions in a pipeline
(in newer versions of R, there is a native pipe operator `|>`)

`count(data)` count how many observations there are in a data frame
`summarise(data,...)` applies summary functions to a data frame
`group_by(data, x)` group *data* by values in variable x

Chain this for example like this:

```
data %>%
  group_by(y) %>%
  summarise(prumer = mean(x),
            median = median(x))
```


Plotting with `ggplot2`

Load package `library(ggplot2)`.
Alert: in `ggplot2`, individual pieces of code are chained using `+`!

`ggplot()` basic function call for each plot
`aes(x, y, color, fill...)` aesthetics

Geometries

`geom_histogram()` produces histogram

`geom_point()` produces scatterplot

Create a plot like this:

```
data %>%
  ggplot() +
  aes(x) +
  geom_histogram()
```