2021/9/25 car\_viz.R

## car viz.R

## Administrator

## 2021-09-24

```
library (tidyverse)
## -- Attaching packages ---
                                                           ---- tidyverse 1.3.1 --
## v ggplot2 3.3.5 v purrr
                                0.3.4
## v tibble 3.1.4 v dplyr 1.0.7
## v tidyr 1.1.3
                      v stringr 1.4.0
## v readr 2.0.1
                      v forcats 0.5.1
## -- Conflicts -----
                                              ----- tidyverse conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag() masks stats::lag()
# call built-in data mtcars.
data(mtcars)
# Select only car models where mpg<20
mtcars_mpg2 <- mtcars[mtcars$mpg < 20,]</pre>
# Reduce the variables to mpg, cyl, disp, hp, gears
mtcars_mpg2 \leftarrow mtcars_mpg2[, c(1, 2, 3, 4, 10)]
# read the R file hand_functions.R so that it can be used
# notice that with echo = TRUE
source(file = "hand_functions.R", echo = TRUE)
##
\#\# > sum_special <- function(df_x) {
## +
     try(if (!is.data.frame(df x))
## +
            stop("Input data must be a data frame."))
        sp means <- apply(df .... [TRUNCATED]</pre>
## +
```

2021/9/25 car\_viz.R

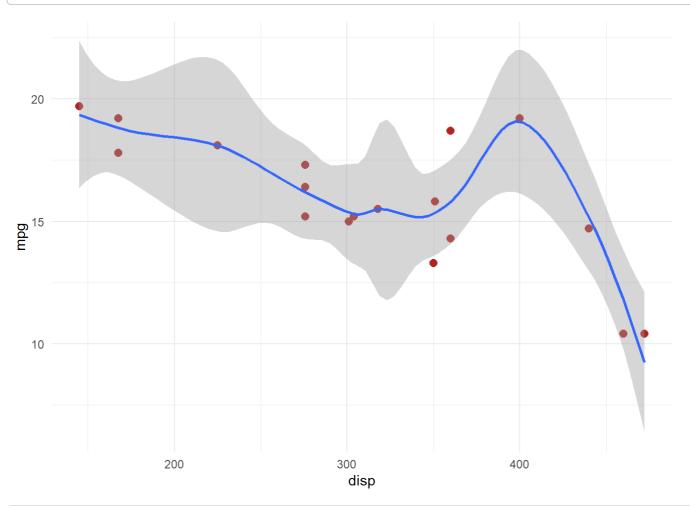
```
# Now use the function from hand_functions.R

sp_out <- sum_special(mtcars_mpg2)

# library(esquisse)
#
# esquisser(data = mtcars_mpg2, viewer = "browser")

ggplot(mtcars_mpg2) +
    aes(x = disp, y = mpg) +
    geom_point(shape = "bullet", size = 4L, colour = "#B22222") +
    geom_smooth(span = 0.5) +
    theme_minimal()</pre>
```

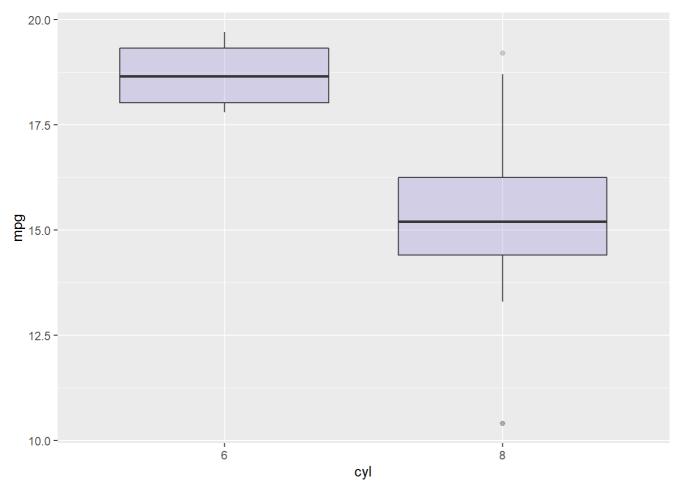
```
## geom_smooth() using method = 'loess' and formula 'y \tilde{x}'
```



```
# note that this boxplot cannot be made with esquisse() unless
# the data is adjusted. What adjustment is needed?

ggplot(mtcars_mpg2, aes(x=as.factor(cyl), y=mpg)) +
  geom_boxplot(fill="slateblue", alpha=0.2) +
  xlab("cyl")
```

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 $\sharp$  I Learn how to clone the repo form Github and how to knit the rmd file into PDF and html vers ion