data-visualisasi.R

Students

2019-05-21

library(tidyverse)

## Warning: package 'tidyverse' was built under R version 3.5.3

## -- Attaching packages ---------------------------------------------------------------- tidyverse 1.2.1 --

## v ggplot2 3.1.1 v purrr 0.3.2  
## v tibble 2.1.1 v dplyr 0.8.1  
## v tidyr 0.8.3 v stringr 1.4.0  
## v readr 1.3.1 v forcats 0.4.0

## Warning: package 'ggplot2' was built under R version 3.5.3

## Warning: package 'tibble' was built under R version 3.5.3

## Warning: package 'tidyr' was built under R version 3.5.3

## Warning: package 'readr' was built under R version 3.5.3

## Warning: package 'purrr' was built under R version 3.5.3

## Warning: package 'dplyr' was built under R version 3.5.3

## Warning: package 'stringr' was built under R version 3.5.3

## Warning: package 'forcats' was built under R version 3.5.3

## -- Conflicts ------------------------------------------------------------------- tidyverse\_conflicts() --  
## x dplyr::filter() masks stats::filter()  
## x dplyr::lag() masks stats::lag()

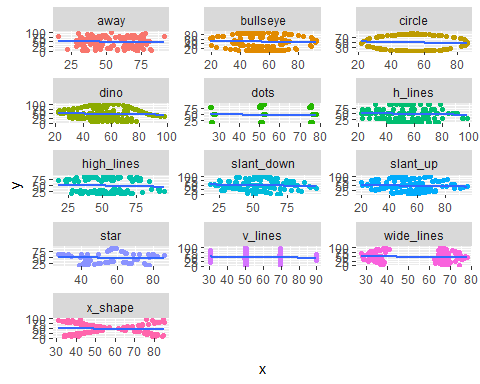
library(datasauRus)

## Warning: package 'datasauRus' was built under R version 3.5.3

datasaurus\_dozen%>%  
 group\_by(dataset) %>%  
 summarise(  
 mean\_x = mean(x),  
 sd\_x = sd(x),  
 mean\_y = mean(y),  
 sd\_y = sd(y),  
 cor = cor(x, y)  
 )

## # A tibble: 13 x 6  
## dataset mean\_x sd\_x mean\_y sd\_y cor  
## <chr> <dbl> <dbl> <dbl> <dbl> <dbl>  
## 1 away 54.3 16.8 47.8 26.9 -0.0641  
## 2 bullseye 54.3 16.8 47.8 26.9 -0.0686  
## 3 circle 54.3 16.8 47.8 26.9 -0.0683  
## 4 dino 54.3 16.8 47.8 26.9 -0.0645  
## 5 dots 54.3 16.8 47.8 26.9 -0.0603  
## 6 h\_lines 54.3 16.8 47.8 26.9 -0.0617  
## 7 high\_lines 54.3 16.8 47.8 26.9 -0.0685  
## 8 slant\_down 54.3 16.8 47.8 26.9 -0.0690  
## 9 slant\_up 54.3 16.8 47.8 26.9 -0.0686  
## 10 star 54.3 16.8 47.8 26.9 -0.0630  
## 11 v\_lines 54.3 16.8 47.8 26.9 -0.0694  
## 12 wide\_lines 54.3 16.8 47.8 26.9 -0.0666  
## 13 x\_shape 54.3 16.8 47.8 26.9 -0.0656

datasaurus\_dozen %>%  
 ggplot(aes(x = x, y=y)) +  
 geom\_point(aes(colour = dataset)) +  
 geom\_smooth(method = "lm", se = FALSE) +  
 facet\_wrap(~dataset, ncol = 3, scales = "free") +  
 guides(colour = FALSE)



theme\_minimal()

## List of 59  
## $ line :List of 6  
## ..$ colour : chr "black"  
## ..$ size : num 0.5  
## ..$ linetype : num 1  
## ..$ lineend : chr "butt"  
## ..$ arrow : logi FALSE  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_line" "element"  
## $ rect :List of 5  
## ..$ fill : chr "white"  
## ..$ colour : chr "black"  
## ..$ size : num 0.5  
## ..$ linetype : num 1  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_rect" "element"  
## $ text :List of 11  
## ..$ family : chr ""  
## ..$ face : chr "plain"  
## ..$ colour : chr "black"  
## ..$ size : num 11  
## ..$ hjust : num 0.5  
## ..$ vjust : num 0.5  
## ..$ angle : num 0  
## ..$ lineheight : num 0.9  
## ..$ margin : 'margin' num [1:4] 0pt 0pt 0pt 0pt  
## .. ..- attr(\*, "valid.unit")= int 8  
## .. ..- attr(\*, "unit")= chr "pt"  
## ..$ debug : logi FALSE  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ axis.title.x :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : NULL  
## ..$ hjust : NULL  
## ..$ vjust : num 1  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : 'margin' num [1:4] 2.75pt 0pt 0pt 0pt  
## .. ..- attr(\*, "valid.unit")= int 8  
## .. ..- attr(\*, "unit")= chr "pt"  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ axis.title.x.top :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : NULL  
## ..$ hjust : NULL  
## ..$ vjust : num 0  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : 'margin' num [1:4] 0pt 0pt 2.75pt 0pt  
## .. ..- attr(\*, "valid.unit")= int 8  
## .. ..- attr(\*, "unit")= chr "pt"  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ axis.title.y :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : NULL  
## ..$ hjust : NULL  
## ..$ vjust : num 1  
## ..$ angle : num 90  
## ..$ lineheight : NULL  
## ..$ margin : 'margin' num [1:4] 0pt 2.75pt 0pt 0pt  
## .. ..- attr(\*, "valid.unit")= int 8  
## .. ..- attr(\*, "unit")= chr "pt"  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ axis.title.y.right :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : NULL  
## ..$ hjust : NULL  
## ..$ vjust : num 0  
## ..$ angle : num -90  
## ..$ lineheight : NULL  
## ..$ margin : 'margin' num [1:4] 0pt 0pt 0pt 2.75pt  
## .. ..- attr(\*, "valid.unit")= int 8  
## .. ..- attr(\*, "unit")= chr "pt"  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ axis.text :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : chr "grey30"  
## ..$ size : 'rel' num 0.8  
## ..$ hjust : NULL  
## ..$ vjust : NULL  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : NULL  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ axis.text.x :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : NULL  
## ..$ hjust : NULL  
## ..$ vjust : num 1  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : 'margin' num [1:4] 2.2pt 0pt 0pt 0pt  
## .. ..- attr(\*, "valid.unit")= int 8  
## .. ..- attr(\*, "unit")= chr "pt"  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ axis.text.x.top :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : NULL  
## ..$ hjust : NULL  
## ..$ vjust : num 0  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : 'margin' num [1:4] 0pt 0pt 2.2pt 0pt  
## .. ..- attr(\*, "valid.unit")= int 8  
## .. ..- attr(\*, "unit")= chr "pt"  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ axis.text.y :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : NULL  
## ..$ hjust : num 1  
## ..$ vjust : NULL  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : 'margin' num [1:4] 0pt 2.2pt 0pt 0pt  
## .. ..- attr(\*, "valid.unit")= int 8  
## .. ..- attr(\*, "unit")= chr "pt"  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ axis.text.y.right :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : NULL  
## ..$ hjust : num 0  
## ..$ vjust : NULL  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : 'margin' num [1:4] 0pt 0pt 0pt 2.2pt  
## .. ..- attr(\*, "valid.unit")= int 8  
## .. ..- attr(\*, "unit")= chr "pt"  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ axis.ticks : list()  
## ..- attr(\*, "class")= chr [1:2] "element\_blank" "element"  
## $ axis.ticks.length : 'unit' num 2.75pt  
## ..- attr(\*, "valid.unit")= int 8  
## ..- attr(\*, "unit")= chr "pt"  
## $ axis.line : list()  
## ..- attr(\*, "class")= chr [1:2] "element\_blank" "element"  
## $ axis.line.x : NULL  
## $ axis.line.y : NULL  
## $ legend.background : list()  
## ..- attr(\*, "class")= chr [1:2] "element\_blank" "element"  
## $ legend.margin : 'margin' num [1:4] 5.5pt 5.5pt 5.5pt 5.5pt  
## ..- attr(\*, "valid.unit")= int 8  
## ..- attr(\*, "unit")= chr "pt"  
## $ legend.spacing : 'unit' num 11pt  
## ..- attr(\*, "valid.unit")= int 8  
## ..- attr(\*, "unit")= chr "pt"  
## $ legend.spacing.x : NULL  
## $ legend.spacing.y : NULL  
## $ legend.key : list()  
## ..- attr(\*, "class")= chr [1:2] "element\_blank" "element"  
## $ legend.key.size : 'unit' num 1.2lines  
## ..- attr(\*, "valid.unit")= int 3  
## ..- attr(\*, "unit")= chr "lines"  
## $ legend.key.height : NULL  
## $ legend.key.width : NULL  
## $ legend.text :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : 'rel' num 0.8  
## ..$ hjust : NULL  
## ..$ vjust : NULL  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : NULL  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ legend.text.align : NULL  
## $ legend.title :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : NULL  
## ..$ hjust : num 0  
## ..$ vjust : NULL  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : NULL  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ legend.title.align : NULL  
## $ legend.position : chr "right"  
## $ legend.direction : NULL  
## $ legend.justification : chr "center"  
## $ legend.box : NULL  
## $ legend.box.margin : 'margin' num [1:4] 0cm 0cm 0cm 0cm  
## ..- attr(\*, "valid.unit")= int 1  
## ..- attr(\*, "unit")= chr "cm"  
## $ legend.box.background: list()  
## ..- attr(\*, "class")= chr [1:2] "element\_blank" "element"  
## $ legend.box.spacing : 'unit' num 11pt  
## ..- attr(\*, "valid.unit")= int 8  
## ..- attr(\*, "unit")= chr "pt"  
## $ panel.background : list()  
## ..- attr(\*, "class")= chr [1:2] "element\_blank" "element"  
## $ panel.border : list()  
## ..- attr(\*, "class")= chr [1:2] "element\_blank" "element"  
## $ panel.spacing : 'unit' num 5.5pt  
## ..- attr(\*, "valid.unit")= int 8  
## ..- attr(\*, "unit")= chr "pt"  
## $ panel.spacing.x : NULL  
## $ panel.spacing.y : NULL  
## $ panel.grid :List of 6  
## ..$ colour : chr "grey92"  
## ..$ size : NULL  
## ..$ linetype : NULL  
## ..$ lineend : NULL  
## ..$ arrow : logi FALSE  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_line" "element"  
## $ panel.grid.minor :List of 6  
## ..$ colour : NULL  
## ..$ size : 'rel' num 0.5  
## ..$ linetype : NULL  
## ..$ lineend : NULL  
## ..$ arrow : logi FALSE  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_line" "element"  
## $ panel.ontop : logi FALSE  
## $ plot.background : list()  
## ..- attr(\*, "class")= chr [1:2] "element\_blank" "element"  
## $ plot.title :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : 'rel' num 1.2  
## ..$ hjust : num 0  
## ..$ vjust : num 1  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : 'margin' num [1:4] 0pt 0pt 5.5pt 0pt  
## .. ..- attr(\*, "valid.unit")= int 8  
## .. ..- attr(\*, "unit")= chr "pt"  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ plot.subtitle :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : NULL  
## ..$ hjust : num 0  
## ..$ vjust : num 1  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : 'margin' num [1:4] 0pt 0pt 5.5pt 0pt  
## .. ..- attr(\*, "valid.unit")= int 8  
## .. ..- attr(\*, "unit")= chr "pt"  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ plot.caption :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : 'rel' num 0.8  
## ..$ hjust : num 1  
## ..$ vjust : num 1  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : 'margin' num [1:4] 5.5pt 0pt 0pt 0pt  
## .. ..- attr(\*, "valid.unit")= int 8  
## .. ..- attr(\*, "unit")= chr "pt"  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ plot.tag :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : 'rel' num 1.2  
## ..$ hjust : num 0.5  
## ..$ vjust : num 0.5  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : NULL  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ plot.tag.position : chr "topleft"  
## $ plot.margin : 'margin' num [1:4] 5.5pt 5.5pt 5.5pt 5.5pt  
## ..- attr(\*, "valid.unit")= int 8  
## ..- attr(\*, "unit")= chr "pt"  
## $ strip.background : list()  
## ..- attr(\*, "class")= chr [1:2] "element\_blank" "element"  
## $ strip.placement : chr "inside"  
## $ strip.text :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : chr "grey10"  
## ..$ size : 'rel' num 0.8  
## ..$ hjust : NULL  
## ..$ vjust : NULL  
## ..$ angle : NULL  
## ..$ lineheight : NULL  
## ..$ margin : 'margin' num [1:4] 4.4pt 4.4pt 4.4pt 4.4pt  
## .. ..- attr(\*, "valid.unit")= int 8  
## .. ..- attr(\*, "unit")= chr "pt"  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ strip.text.x : NULL  
## $ strip.text.y :List of 11  
## ..$ family : NULL  
## ..$ face : NULL  
## ..$ colour : NULL  
## ..$ size : NULL  
## ..$ hjust : NULL  
## ..$ vjust : NULL  
## ..$ angle : num -90  
## ..$ lineheight : NULL  
## ..$ margin : NULL  
## ..$ debug : NULL  
## ..$ inherit.blank: logi TRUE  
## ..- attr(\*, "class")= chr [1:2] "element\_text" "element"  
## $ strip.switch.pad.grid: 'unit' num 2.75pt  
## ..- attr(\*, "valid.unit")= int 8  
## ..- attr(\*, "unit")= chr "pt"  
## $ strip.switch.pad.wrap: 'unit' num 2.75pt  
## ..- attr(\*, "valid.unit")= int 8  
## ..- attr(\*, "unit")= chr "pt"  
## - attr(\*, "class")= chr [1:2] "theme" "gg"  
## - attr(\*, "complete")= logi TRUE  
## - attr(\*, "validate")= logi TRUE