Weight Loss

Aksana

2023-07-08

Weight Loss Story of Two Girls

It is one of my first projects in data analytics field. It was summer, and you know that the majority of girls try to lose some weight in summer to look prettier. So here I will visualize the story of two girls who were trying to do this. Guess, who was more straightforward?

Installing packages

```
install.packages ("tidyverse")
```

```
## Installing package into '/cloud/lib/x86_64-pc-linux-gnu-library/4.3'
## (as 'lib' is unspecified)
```

```
installed.packages("ggplot2")
```

```
##      Package LibPath Version Priority Depends Imports LinkingTo Suggests
##      Enhances License License_is_FOSS License_restricts_use OS_type Archs
##      MD5sum NeedsCompilation Built
```

```
install.packages("dplyr")
```

```
## Installing package into '/cloud/lib/x86_64-pc-linux-gnu-library/4.3'
## (as 'lib' is unspecified)
```

```
install.packages("lubridate")
```

```
## Installing package into '/cloud/lib/x86_64-pc-linux-gnu-library/4.3'
## (as 'lib' is unspecified)
```

```
library (dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
library (lubridate)
```

```
##
## Attaching package: 'lubridate'
```

```
## The following objects are masked from 'package:base':
##
##     date, intersect, setdiff, union
```

```
library (tidyverse)
```

```
## ── Attaching core tidyverse packages ──────────────────────── tidyverse 2.0.0 ──
## ✓ forcats 1.0.0     ✓ stringr 1.5.0
## ✓ ggplot2 3.4.2     ✓ tibble  3.2.1
## ✓ purrr   1.0.1     ✓ tidyr   1.3.0
## ✓ readr   2.1.4
```

```
## ── Conflicts ────────────────────────────────────────── tidyverse_conflicts() ──
## ✖ dplyr::filter() masks stats::filter()
## ✖ dplyr::lag()    masks stats::lag()
## ℹ Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to be
come errors
```

```
library (ggplot2)
```

Importing the dataset

```
weight <- read.csv ("Oksana_Alisa_losing_weight.csv" )
```

Converting data between wide and long format

```
w1 <- pivot_longer (weight, !Date, names_to="Names", values_to= "Weight")
```

Formatting dates in a proper way (mm-dd-yyyy)

```
class (weight$Date)
```

```
## [1] "character"
```

```
w1$Date <- as.POSIXct( w1$Date, format="%m/%d/%Y" )
class(w1$Date)
```

```
## [1] "POSIXct" "POSIXt"
```

Calculating each of girls weight loss in percent to add this information into caption

```
wcleaned <- na.omit (weight)
lose_Oksana <-round((100-(min (wcleaned$Oksana)/max(wcleaned$Oksana))*100),1)
lose_Alisa <- round ((100-(min (wcleaned$Alisa)/max(wcleaned$Alisa))*100),1)
```

Creating a line plot to compare weight loss of two girls

```
w1 %>% drop_na %>%
ggplot(w1, mapping = aes(x = Date, y = Weight, color= Names, group=Names)) +
    geom_line()+
  geom_point()+
   theme (axis.text.x = element_text(angle=45), plot.caption = element_text(size = 8, hjust =
0.5,
                                                                            family = "Garamon
d"))+
  labs (title = "Weight Loss Story of Two Girls",
        caption = sprintf ("Alisa's weight loss - %.1f percent\n Oksana's weight loss - %.1f
percent",
        lose_Alisa,lose_Oksana))
```