Animaciones en R

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GIFS en R

Data a usar

```r
#CARGO LIBRERIAS
library(tidyverse)
```

```
## Error in fun(pkgname, pkgpath) :
##   objeto 'rlang_glue_is_there' no encontrado
```

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

```
## v ggplot2 3.2.1     v purrr   0.3.3
## v tibble  2.1.3     v dplyr   0.8.4
## v tidyr   1.0.0     v stringr 1.4.0
## v readr   1.3.1     v forcats 0.4.0
```

```
## -- Conflicts ---------------------------------------------- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```r
library(gganimate)
```

```
## Warning: package 'gganimate' was built under R version 3.6.2
```

```r
library(av)
```

```
## Warning: package 'av' was built under R version 3.6.3
```

```r
#CARGO DATA A USAR
gdp_tidy <- read_csv("./data/gdp_tidy.csv")
```

```
## Parsed with column specification:
## cols(
##   country_name = col_character(),
##   country_code = col_character(),
##   year = col_double(),
##   value = col_double()
## )
```

```r
head(gdp_tidy)
```

```
## # A tibble: 6 x 4
##   country_name   country_code  year        value
##   <chr>          <chr>         <dbl>        <dbl>
## 1 Afghanistan    AFG           1990           NA
## 2 Albania        ALB           1990   2028553750
## 3 Algeria        DZA           1990 62045099643.
## 4 American Samoa ASM           1990           NA
## 5 Andorra        AND           1990   1029048482.
## 6 Angola         AGO           1990 11228764963.
```

```r
#PROCESO DATA
gdp_formatted <- gdp_tidy %>%
  group_by(year) %>%
  # The * 1 makes it possible to have non-integer ranks while sliding
  mutate(rank = rank(-value),
         Value_rel = value/value[rank==1],
         Value_lbl = paste0(" ",round(value/1e9))) %>%
  group_by(country_name) %>%
  filter(rank <=10) %>%
  ungroup()

head(gdp_formatted)
```

```
## # A tibble: 6 x 7
##   country_name country_code  year    value  rank Value_rel Value_lbl
##   <chr>        <chr>         <dbl>    <dbl> <dbl>     <dbl> <chr>
## 1 Brazil       BRA           1990 4.62e11     10    0.0773 " 462"
## 2 Canada       CAN           1990 5.94e11      7    0.0993 " 594"
## 3 France       FRA           1990 1.27e12      4    0.212  " 1269"
## 4 Germany      DEU           1990 1.76e12      3    0.295  " 1765"
## 5 Italy        ITA           1990 1.18e12      5    0.197  " 1177"
## 6 Japan        JPN           1990 3.13e12      2    0.524  " 3133"
```

Paquete gganimate

Función animate

```r
#CREO ANIMACION
anim <- ggplot(gdp_formatted, aes(rank, group = country_name,
               fill = as.factor(country_name), color = as.factor(country_name))) +
  geom_tile(aes(y = value/2,
               height = value,
               width = 0.9), alpha = 0.8, color = NA) +
  geom_text(aes(y = 0, label = paste(country_name, " ")), vjust = 0.2, hjust = 1) +
  geom_text(aes(y=value,label = Value_lbl, hjust=0)) +
  coord_flip(clip = "off", expand = FALSE) +
  scale_y_continuous(labels = scales::comma) +
  scale_x_reverse() +
```

```r
  guides(color = FALSE, fill = FALSE) +
  theme(axis.line=element_blank(),
        axis.text.x=element_blank(),
        axis.text.y=element_blank(),
        axis.ticks=element_blank(),
        axis.title.x=element_blank(),
         axis.title.y=element_blank(),
        legend.position="none",
        panel.background=element_blank(),
        panel.border=element_blank(),
        panel.grid.major=element_blank(),
        panel.grid.minor=element_blank(),
        panel.grid.major.x = element_line( size=.1, color="grey" ),
        panel.grid.minor.x = element_line( size=.1, color="grey" ),
        plot.title=element_text(size=25, hjust=0.5, face="bold", colour="grey", vjust=-1),
        plot.subtitle=element_text(size=18, hjust=0.5, face="italic", color="grey"),
        plot.caption =element_text(size=8, hjust=0.5, face="italic", color="grey"),
        plot.background=element_blank(),
       plot.margin = margin(2,2, 2, 4, "cm")) +
  transition_states(year, transition_length = 4, state_length = 1) +
  view_follow(fixed_x = TRUE)  +
  labs(title = 'GDP per Year : {closest_state}',
       subtitle  =  "Top 10 Countries",
       caption  = "GDP in Billions USD | Data Source: World Bank Data")
```

Exportación a GIF

Exportación a video