LAB 43 (MD)

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LABORATORIO - Graficas animadas con ggplot2

Objetivo: hacer graficas animadas con ggplot2

En este ejercicio vamos a:

1. grafica basica
2. animando grafica
3. mejorando animacion

Cargando libreria tidyverse

```
library(tidyverse)
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --
```

```
## v ggplot2 3.3.3     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   1.4.0     v forcats 0.5.1
```

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

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

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

Instalando paquete para animar

install.packages(‘gganimate’)

```
library(gganimate)
```

install.packages(‘gifski’)

```
library(gifski)
```

Instalando paquete con los datos

install.packages(“gapminder”)

Cargando paquete con los datos

```
library(gapminder)
```

```
## Warning: package 'gapminder' was built under R version 3.5.3
```

Cargando datos a entorno

```
data("gapminder")
```

Cargando datos a entorno

```
head(gapminder)
```

```
## # A tibble: 6 x 6
##   country     continent  year lifeExp      pop gdpPercap
##   <fct>       <fct>     <int>   <dbl>    <int>     <dbl>
## 1 Afghanistan Asia       1952    28.8  8425333      779.
## 2 Afghanistan Asia       1957    30.3  9240934      821.
## 3 Afghanistan Asia       1962    32.0 10267083      853.
## 4 Afghanistan Asia       1967    34.0 11537966      836.
## 5 Afghanistan Asia       1972    36.1 13079460      740.
## 6 Afghanistan Asia       1977    38.4 14880372      786.
```

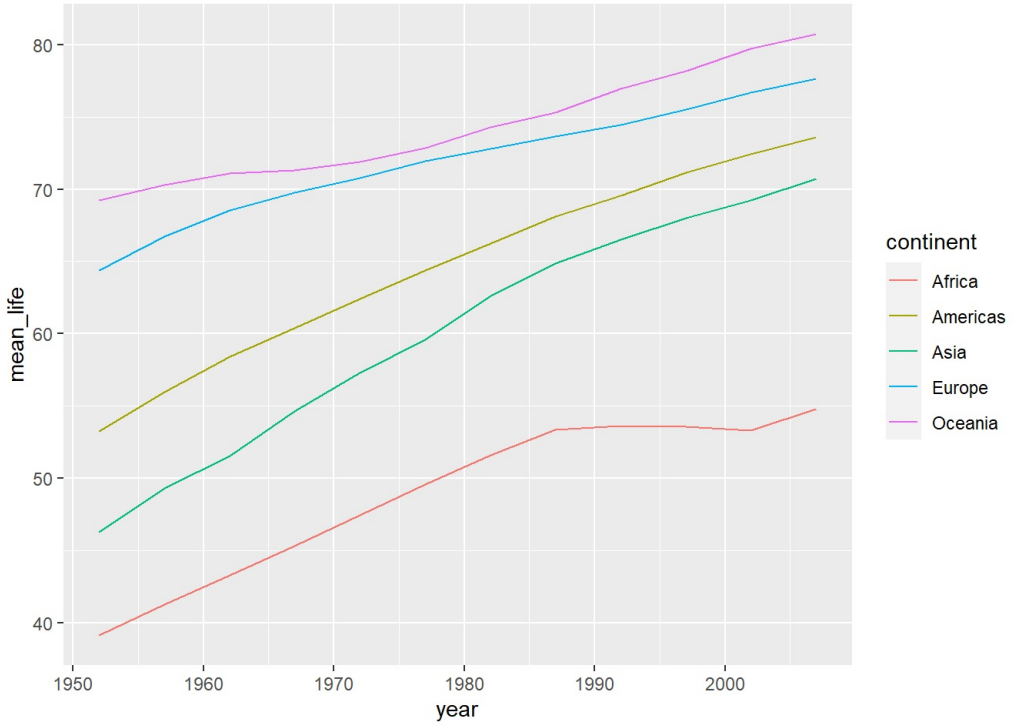
1. grafica basica

```
g_animada <- gapminder %>%
  group_by(year, continent) %>%
  summarize(mean_life = mean(lifeExp)) %>%
  ggplot(aes(x = year,
             y = mean_life,
             color = continent)) +
  geom_line()
```

```
## `summarise()` has grouped output by 'year'. You can override using the `.groups` argument.
```

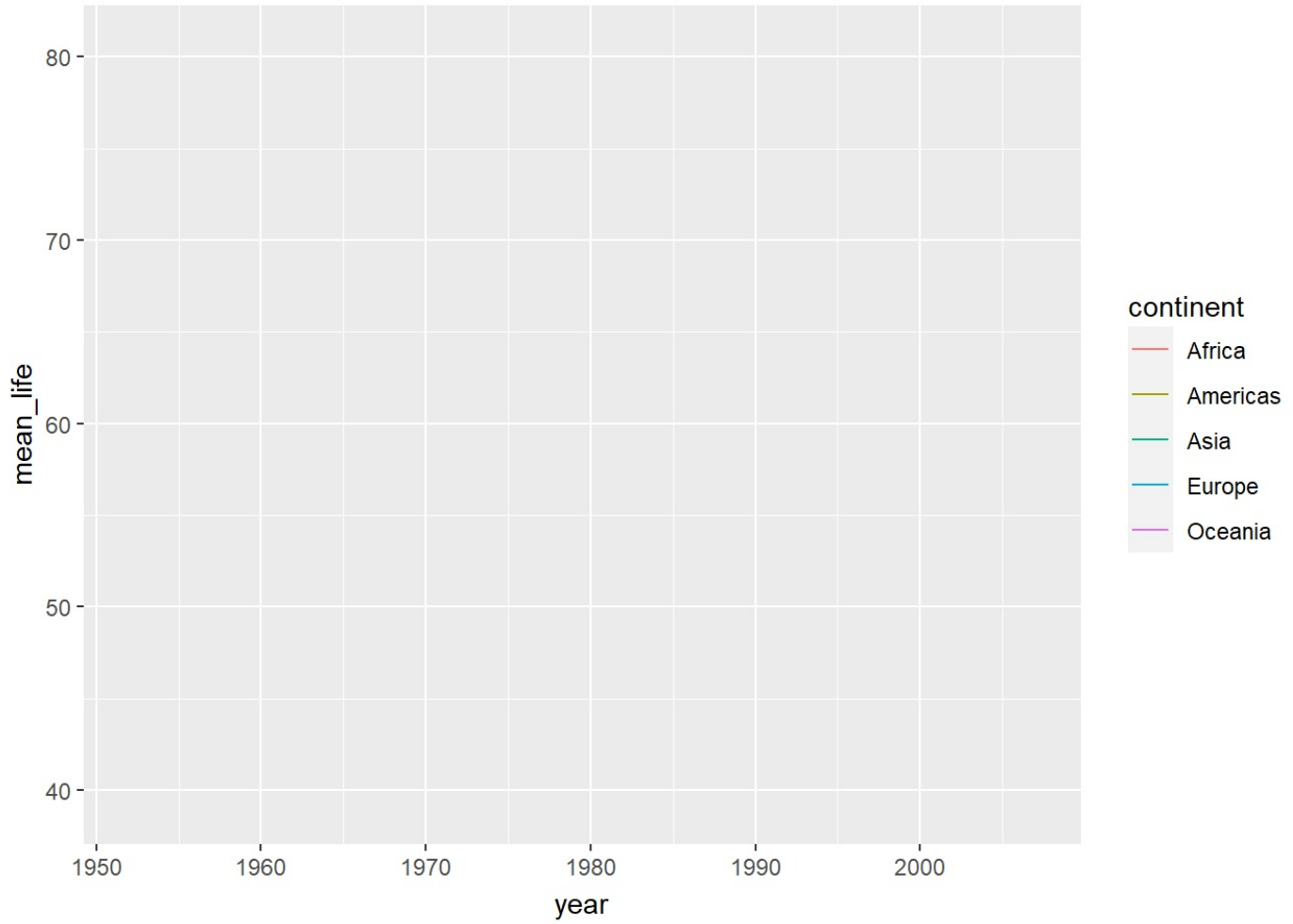
Ver grafica

```
g_animada
```



2. animando grafica

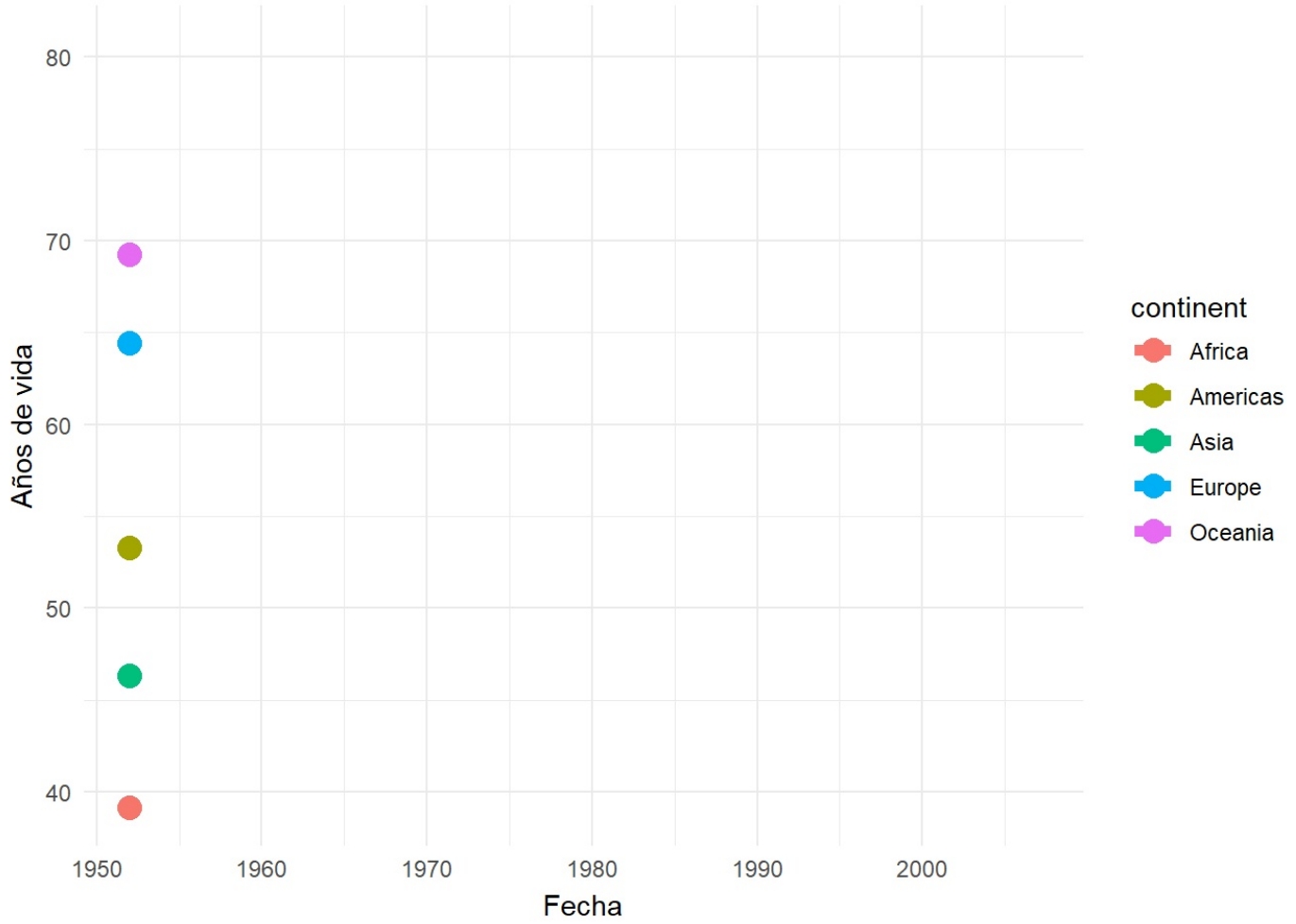
```
g_animada + transition_reveal(year)
```



3. mejorando animacion

```
gapminder %>%
  group_by(year, continent) %>%
  summarize (mean_life = mean(lifeExp)) %>%
  ggplot(aes (x = year,
              y = mean_life,
              color = continent)) +
  geom_line(size = 2) +
  geom_point(size = 4) +
  labs (tittle = "Esperanza de Vida en {frame_along}" ,
        x = "Fecha" ,
        y = "Años de vida") +
  theme_minimal () +
  transition_reveal(year)
```

```
## `summarise()` has grouped output by 'year'. You can override using the `.groups` argument.
```


80
70
60
50
40
Años de vida
1950
1960
1970
1980
1990
2000
Fecha
continent
Africa
Americas
Asia
Europe
Oceania