Lab\_0331

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library(tidycensus)  
library(tidyverse)

## -- Attaching packages --------------------------------------- tidyverse 1.3.0 --

## v ggplot2 3.3.2 v purrr 0.3.4  
## v tibble 3.0.5 v dplyr 1.0.2  
## v tidyr 1.1.2 v stringr 1.4.0  
## v readr 1.3.1 v forcats 0.5.0

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

library(dplyr)  
library(ggplot2)

## Question 1a

census\_api\_key("509e246745e2d25c36709ff998a2637b3805c8bf")

## To install your API key for use in future sessions, run this function with `install = TRUE`.

install = TRUE

## Question 1b

age10 <- get\_decennial(geography = "state",   
 variables = "P013001",   
 year = 2000)

## Getting data from the 2000 decennial Census

## Using Census Summary File 1

age10

## # A tibble: 52 x 4  
## GEOID NAME variable value  
## <chr> <chr> <chr> <dbl>  
## 1 01 Alabama P013001 35.8  
## 2 02 Alaska P013001 32.4  
## 3 04 Arizona P013001 34.2  
## 4 05 Arkansas P013001 36   
## 5 06 California P013001 33.3  
## 6 08 Colorado P013001 34.3  
## 7 09 Connecticut P013001 37.4  
## 8 10 Delaware P013001 36   
## 9 11 District of Columbia P013001 34.6  
## 10 12 Florida P013001 38.7  
## # ... with 42 more rows

## Question 1c

mean(age10$value)

## [1] 35.45192

max(age10$value)

## [1] 38.9

summary(age10$value)

## Min. 1st Qu. Median Mean 3rd Qu. Max.   
## 27.10 34.67 35.75 35.45 36.23 38.90

## Question 2A

age11 <- get\_decennial(geography = "state",   
 variables = "P013H002",   
 year = 2010)

## Getting data from the 2010 decennial Census

## Using Census Summary File 1

age11

## # A tibble: 52 x 4  
## GEOID NAME variable value  
## <chr> <chr> <chr> <dbl>  
## 1 01 Alabama P013H002 25.3  
## 2 02 Alaska P013H002 24.2  
## 3 04 Arizona P013H002 24.8  
## 4 05 Arkansas P013H002 24   
## 5 06 California P013H002 26.5  
## 6 22 Louisiana P013H002 28.9  
## 7 21 Kentucky P013H002 25.4  
## 8 08 Colorado P013H002 26.2  
## 9 09 Connecticut P013H002 26.5  
## 10 10 Delaware P013H002 24.9  
## # ... with 42 more rows

## Question 2b

mean(age11$value)

## [1] 25.54231

max(age11$value)

## [1] 35.1

summary(age11$value)

## Min. 1st Qu. Median Mean 3rd Qu. Max.   
## 22.40 23.98 24.90 25.54 26.43 35.10

## Question 2c

age11 %>%  
 filter(value>=  
 25)

## # A tibble: 24 x 4  
## GEOID NAME variable value  
## <chr> <chr> <chr> <dbl>  
## 1 01 Alabama P013H002 25.3  
## 2 06 California P013H002 26.5  
## 3 22 Louisiana P013H002 28.9  
## 4 21 Kentucky P013H002 25.4  
## 5 08 Colorado P013H002 26.2  
## 6 09 Connecticut P013H002 26.5  
## 7 11 District of Columbia P013H002 30   
## 8 12 Florida P013H002 32.2  
## 9 13 Georgia P013H002 25.6  
## 10 17 Illinois P013H002 26.4  
## # ... with 14 more rows