tugas modul 7

iqi_123190149

04/11/2021

1. Menggunakan as_tibble untuk mengkonversi tabel dataset “US murders” dalam bentuk tibble dan menyimpannya dalam objek baru bernama ‘murders_tibble’

```
library(dslabs)
library(tidyverse)
```

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

```
## v ggplot2 3.3.5     v purrr   0.3.4
## v tibble  3.1.4     v dplyr   1.0.7
## v tidyr   1.1.4     v stringr 1.4.0
## v readr   2.0.2     v forcats 0.5.1
```

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

```
data(murders)
as_tibble(murders) %>% class()
```

```
## [1] "tbl_df"     "tbl"        "data.frame"
```

```
murders_tibble <- as_tibble(murders) %>% class()
```

2. Menggunakan fungsi group_by untuk mengkonversi dataset “US murders” menjadi sebuah tibble yang dikelompokkan berdasarkan ‘region’

```
as_tibble(murders) %>% group_by(region)
```

```
## # A tibble: 51 x 5
## # Groups:   region [4]
##    state                abb   region    population total
##    <chr>                <chr> <fct>          <dbl> <dbl>
##  1 Alabama              AL    South        4779736   135
##  2 Alaska               AK    West          710231    19
##  3 Arizona              AZ    West         6392017   232
##  4 Arkansas             AR    South        2915918    93
##  5 California           CA    West        37253956  1257
##  6 Colorado             CO    West         5029196    65
##  7 Connecticut          CT    Northeast    3574097    97
##  8 Delaware             DE    South         897934    38
##  9 District of Columbia DC    South         601723    99
## 10 Florida              FL    South       19687653   669
## # ... with 41 more rows
```

3. Menggunakan operator pipe dan dot operator

```
library(dslabs)
library(dplyr)
data(murders)
murders %>%
     pull(population) %>%
     log %>%
     mean %>%
     exp
```

```
## [1] 3675209
```

4.

```
library(purrr)
compute_s_n <- function(n){
 x <- 1:n
 sum(x)
}
n <- 1:100
s_n <- sapply(n, compute_s_n)
compute_s_n <- function(n){
 x <- 1:n
 tibble(sum = sum(x))
}
s_n <- map_df(n, compute_s_n)
as_tibble(s_n)
```

```
## # A tibble: 100 x 1
##      sum
##    <int>
##  1     1
##  2     3
##  3     6
##  4    10
##  5    15
##  6    21
##  7    28
##  8    36
##  9    45
## 10    55
## # ... with 90 more rows
```