

Latihan4_123190032

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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
```