latihan3_123190036

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9/30/2021

Mengurutkan data dari terkecil ke terbesar

```
library(dslabs)
data(murders)
pop <- murders$population</pre>
class(pop)
## [1] "numeric"
sort(pop)
          563626
                   601723
                            625741
                                      672591
                                               710231
                                                        814180
                                                                           989415
##
    [1]
                                                                  897934
   [9]
         1052567
                  1316470
                           1328361
                                     1360301
                                              1567582
                                                       1826341
                                                                 1852994
                                                                          2059179
## [17]
         2700551
                  2763885
                           2853118
                                     2915918
                                              2967297
                                                       3046355
                                                                 3574097
                                                                          3751351
## [25]
         3831074
                  4339367
                           4533372
                                     4625364
                                                       5029196
                                                                 5303925
                                                                          5686986
                                              4779736
## [33]
         5773552
                  5988927
                           6346105
                                     6392017
                                              6483802
                                                       6547629
                                                                 6724540
                                                                          8001024
         8791894
                  9535483
                                     9920000 11536504 12702379 12830632 19378102
## [41]
                           9883640
## [49] 19687653 25145561 37253956
min(murders[["population"]])
## [1] 563626
```

 $\mathbf{2}$

menampilkan index terkecil

```
indexpop <- order(pop)
indexpop

## [1] 51  9 46 35  2 42  8 27 40 30 20 12 13 28 49 32 29 45 17  4 25 16  7 37 38
## [26] 18 19 41  1  6 24 50 21 26 43  3 15 22 48 47 31 34 23 11 36 39 14 33 10 44
## [51]  5</pre>
```

```
min(indexpop)

## [1] 1

min(pop[indexpop])

## [1] 563626
```

3

Mengunakan fungsi which.min untuk menampilkan indeks data terkecil dari populasi

```
i_min <- which.min(pop)
pop[i_min]
## [1] 563626</pre>
```

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Menampilkan negara yang memiliki populasi terkecil

```
murders$population[i_min]

## [1] 563626

murders[i_min, 1]

## [1] "Wyoming"
```

5

Mengunakan fungsi rank untuk melihat populasi tiap negara bagian

```
temp <- c(35, 88, 42, 84, 81, 30)
city <- c("Beijing", "Lagos", "Paris", "Rio de Janeiro", "San Juan", "Toronto")
city_temps <- data.frame(name = city, temperature = temp)
ranks <- rank (city_temps$temp)</pre>
```

6

Membuat data frame baru dengan my_df fungsi order

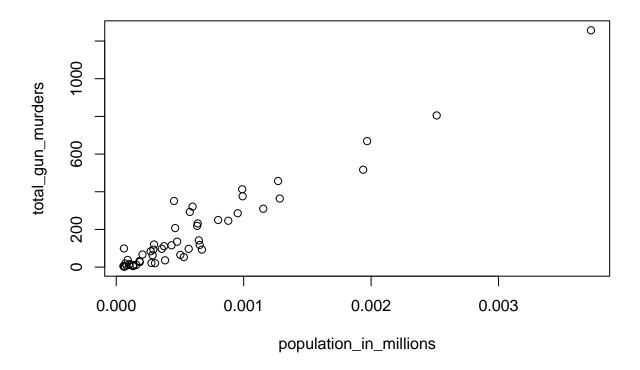
```
Peringkat <- c(2, 1, 3, 6, 5, 4)

NegaraBagian <- c("New South Wales", "Northern Territory", "Queensland", "Tasmania", "Victoria", "Western Territory", "Queensland", "Western Territory", "West
```

7

Membuat plot dalam skala log10

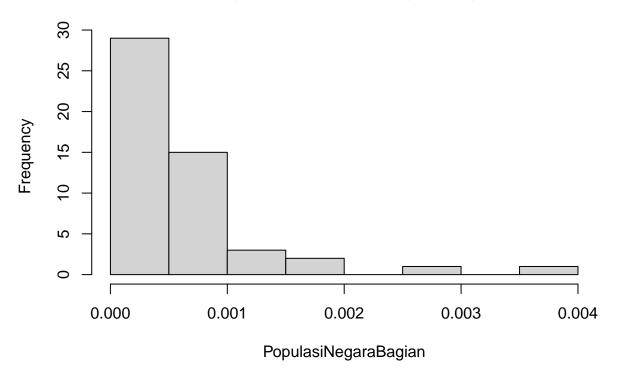
```
population_in_millions <- murders$population/10^10
total_gun_murders <- murders$total
plot(population_in_millions, total_gun_murders)</pre>
```



##8### Membuat histogram dari populasi negara bagian

```
PopulasiNegaraBagian <- (murders$population/1000000000)
hist(PopulasiNegaraBagian)
```

Histogram of PopulasiNegaraBagian



##9### Menghasilkan boxplot dari populasi negara berdasarkan wilayahnya

```
murders$rate <- with(murders, total / population * 10000000000)
boxplot(rate~region, data = murders)</pre>
```

