

Latihan3_123190158

ladhty

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1. Mengurutkan data populasi dan menampilkan data terkecil dari populasi

```
library(dslabs)
data(murders)
pop <- (murders$population)
sort(pop)
```

```
## [1] 563626 601723 625741 672591 710231 814180 897934 989415
## [9] 1052567 1316470 1328361 1360301 1567582 1826341 1852994 2059179
## [17] 2700551 2763885 2853118 2915918 2967297 3046355 3574097 3751351
## [25] 3831074 4339367 4533372 4625364 4779736 5029196 5303925 5686986
## [33] 5773552 5988927 6346105 6392017 6483802 6547629 6724540 8001024
## [41] 8791894 9535483 9883640 9920000 11536504 12702379 12830632 19378102
## [49] 19687653 25145561 37253956
```

```
min(murders[["population"]])
```

```
## [1] 563626
```

2. Menampilkan indeks data terkecil dari populasi

```
x <- (min(murders$population))
order(x)
```

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

3. Menggunakan fungsi which.min untuk menampilkan indeks data terkecil dari populasi

```
i_min <- which.min(murders$population)
i_min
```

```
## [1] 51
```

4. Menampilkan nama negara yang memiliki populasi terkecil

```
i_min <- which.min(murders$population)
murders$state[i_min]
```

```
## [1] "Wyoming"
```

5. Menggunakan fungsi rank untuk menentukan peringkat populasi dan menyimpannya pada objek "ranks"

```
ranks <- (murders$population)
rank(ranks)
```

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

lalu membuat data frame baru “my_df” yang berisi nama negara dan peringkat populasinya

```
rank <- (rank(ranks))
state <- (murders$state)
my_df <- data.frame(negara = state, peringkat = rank)
```

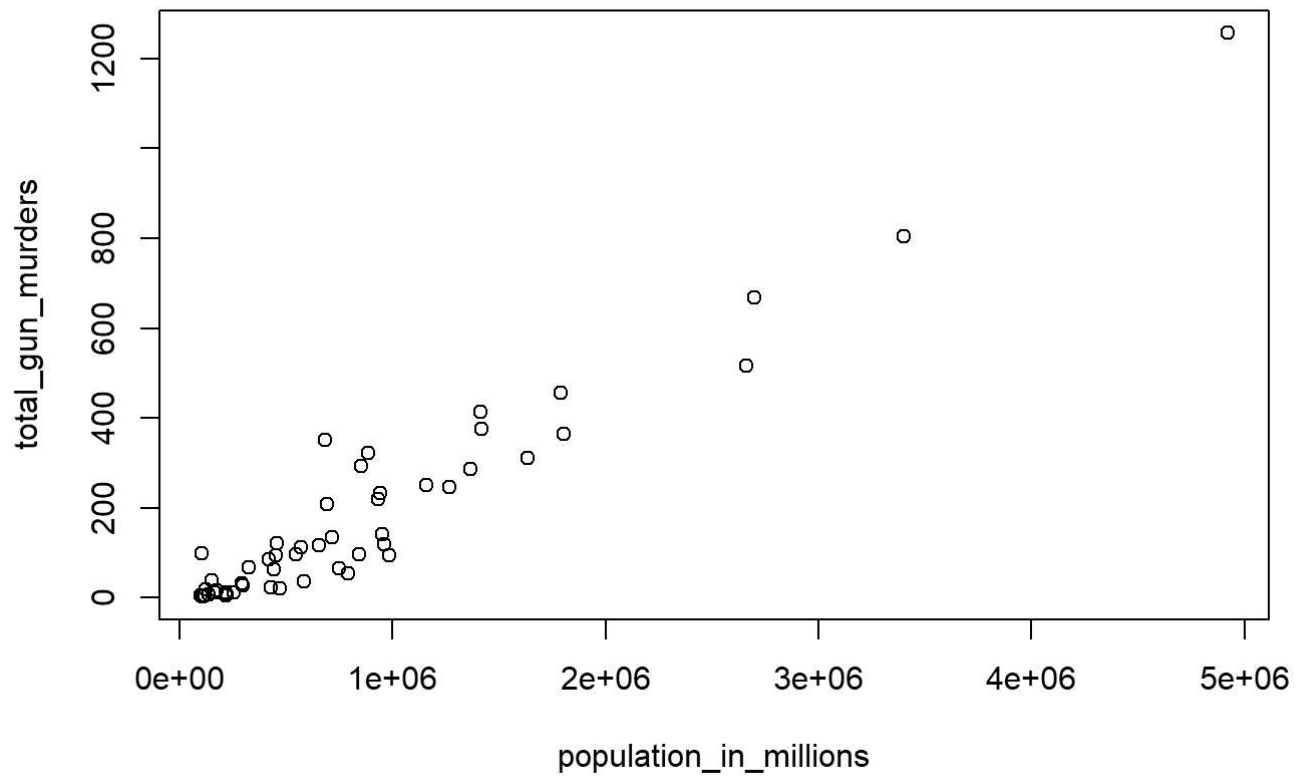
6. Membuat objek “ind” untuk mengurutkan my_df dengan menggunakan fungsi order

```
ind <- order(my_df$peringkat)
my_df$negara[ind]
```

```
## [1] "Wyoming" "District of Columbia" "Vermont"
## [4] "North Dakota" "Alaska" "South Dakota"
## [7] "Delaware" "Montana" "Rhode Island"
## [10] "New Hampshire" "Maine" "Hawaii"
## [13] "Idaho" "Nebraska" "West Virginia"
## [16] "New Mexico" "Nevada" "Utah"
## [19] "Kansas" "Arkansas" "Mississippi"
## [22] "Iowa" "Connecticut" "Oklahoma"
## [25] "Oregon" "Kentucky" "Louisiana"
## [28] "South Carolina" "Alabama" "Colorado"
## [31] "Minnesota" "Wisconsin" "Maryland"
## [34] "Missouri" "Tennessee" "Arizona"
## [37] "Indiana" "Massachusetts" "Washington"
## [40] "Virginia" "New Jersey" "North Carolina"
## [43] "Michigan" "Georgia" "Ohio"
## [46] "Pennsylvania" "Illinois" "New York"
## [49] "Florida" "Texas" "California"
```

7. Membuat plot dalam skala log10

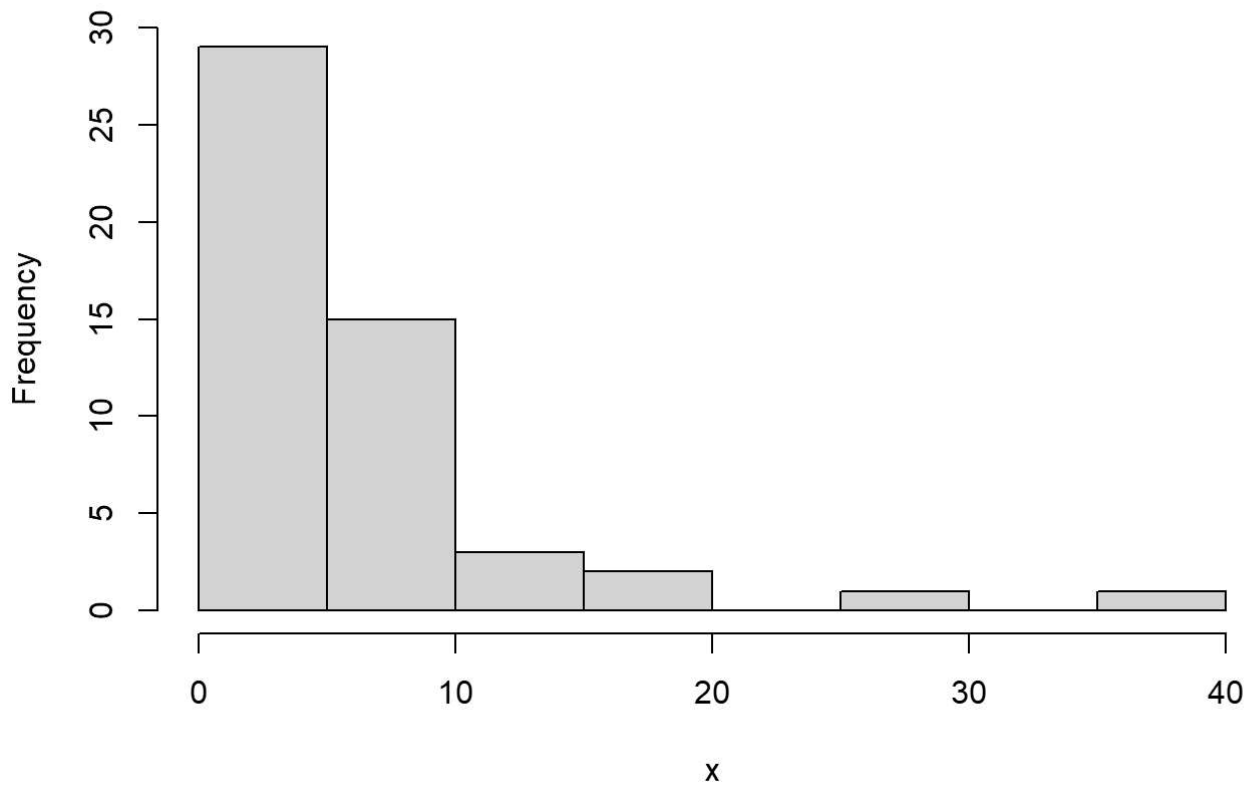
```
population_in_millions <- murders$population/log10(murders$population)
total_gun_murders <- murders$total
plot(population_in_millions, total_gun_murders )
```



8. Membuat histogram dari populasi negara bagian

```
x <- (murders$population/10^6)
hist(x)
```

Histogram of x



9. Menghasilkan boxplot dari populasi negara berdasarkan wilayahnya

```
murders$population <- with(murders, total / population * 100000)
boxplot(population~region, data = murders)
```

