latihan3_123190036

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1

Mengurutkan data dari terkecil ke terbesar

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

class(pop)
```

```
## [1] "numeric"
```

```
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 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
```

```
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
```

4

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)
rank(ranks)
```

```
## [1] 2 6 3 5 4 1
```

Membuat data frame baru dengan my_df fungsi order

```r
Peringkat <- c (2, 1, 3, 6, 5, 4)
NegaraBagian <- c ("New South Wales", "Northern Territory", "Queensland", "Tasmania", "Victoria", "West
```

6

Membuat objek "ind" untuk mengurutkan my_df dengan mengunakan fungsi order

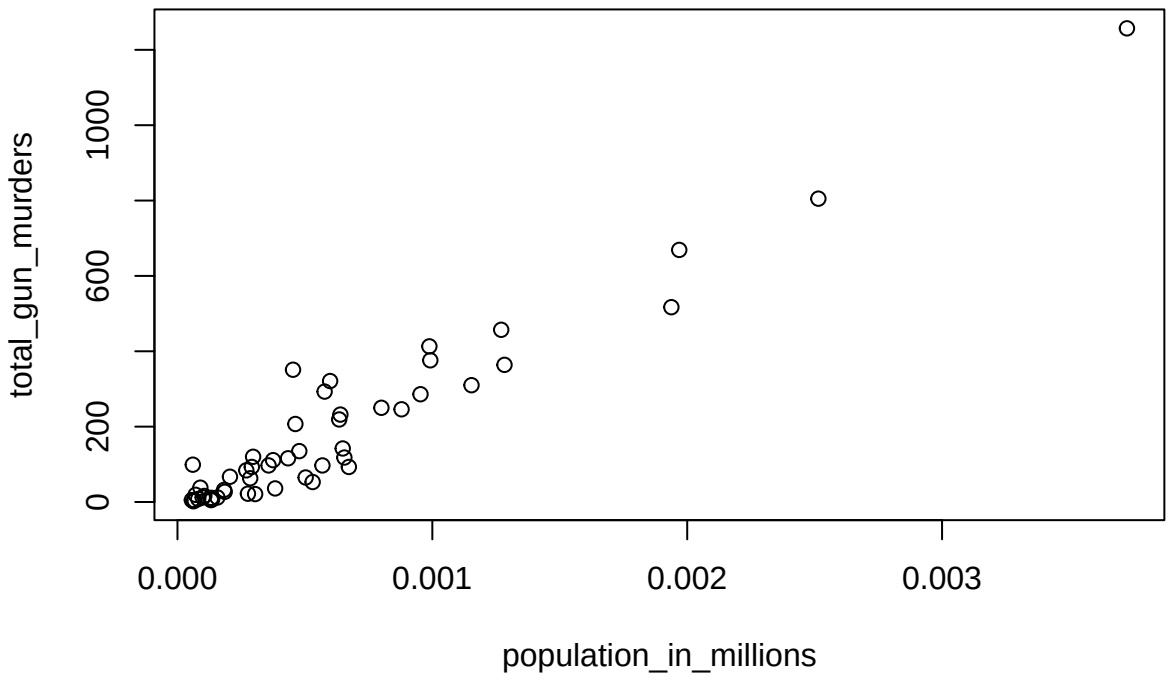
```r
Peringkat <- c(2, 1, 3, 6, 5, 4)
NegaraBagian <-  c ("New South Wales", "Northern Territory", "Queensland", "Tasmania", "Victoria", "Wes
Populasi <- c(205113, 211290, 201555, 10954, 134021, 167280)
my_df <- data.frame(NegaraBagian = NegaraBagian, Peringkat = Peringkat, Populasi = Populasi)
ind <- order (my_df$Populasi)
my_df[ind, 3]
```

```
## [1]  10954 134021 167280 201555 205113 211290
```

7

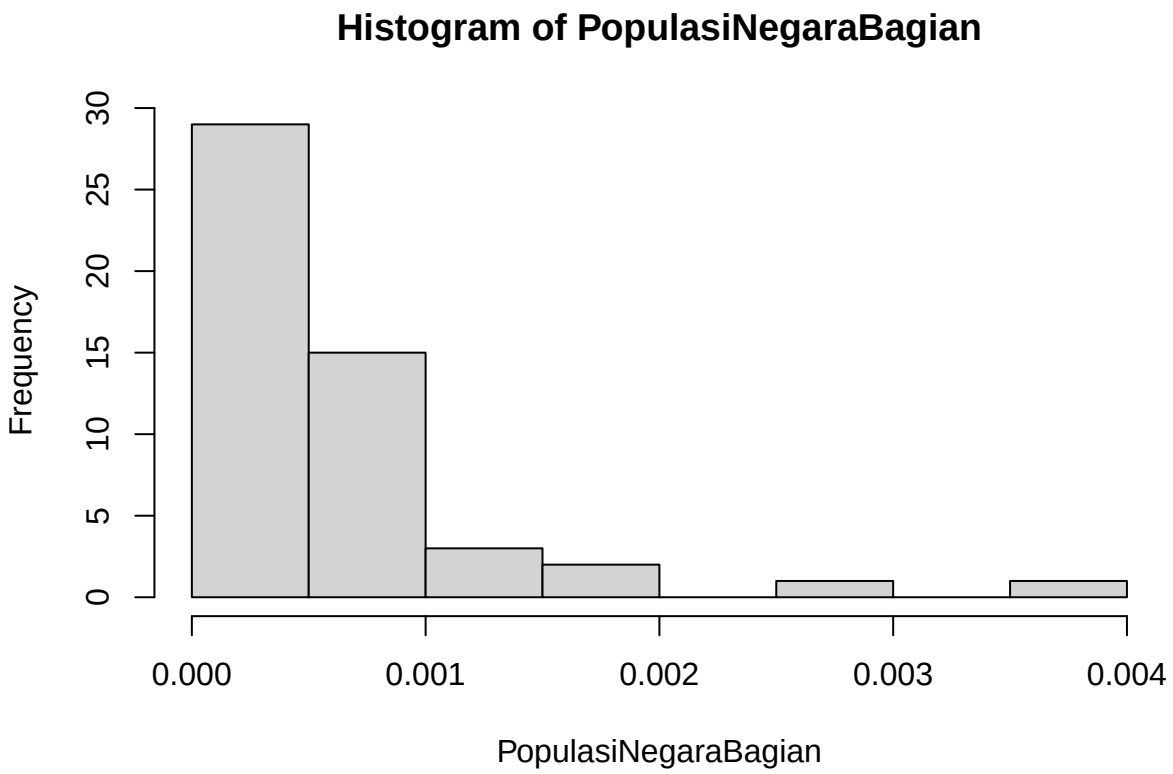
Membuat plot dalam skala log10

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



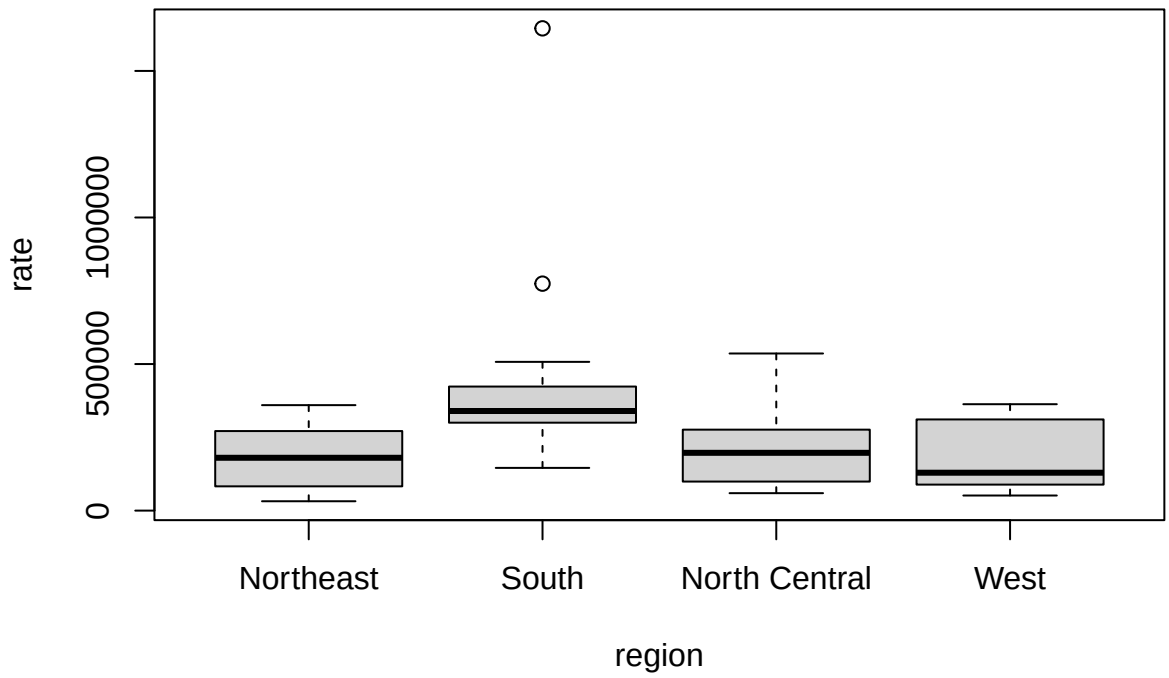
8 ### Membuat histogram dari populasi negara bagian

```
PopulasiNegaraBagian <- (murders$population/10000000000)
hist(PopulasiNegaraBagian)
```



9 ### Menghasilkan boxplot dari populasi negara berdasarkan wilayahnya

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


rate
0
500000
1000000
Northeast
South
North Central
West
region