

Latihan modul 4 praktikum DS

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Deskripsi

PDF RMarkdown ini dibuat untuk menyelesaikan tugas pertemuan 6 Praktikum DS Latihan modul 4

Import Library dslabs dan dataset murders

```
library(dslabs)
data("murders")
```

1. Masukkan Nilai pop

Simpan data populasi pada variabel pop

```
pop <- murders$population
pop
```

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

Sorting data populasi

```
popUrut <- sort(pop)
```

Tampilkan nilai populasi terkecil

```
popUrut[1]
```

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

2. Indeks populasi terkecil

Menampilkan indeks tiap data populasi yang terurut dan mulai dari yang terkecil

```
pop
```

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

```
order(pop)
```

```
## [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
```

3. Fungsi which.min

Gunakan fungsi which.min untuk membuat hasil yang sama dengan langkah sebelumnya

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

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

4. Nama Negara dengan Populasi terkecil

```
murders$state[popUrutMin]
```

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

5. Peringkat Populasi Negara

```
ranks <- rank(murders$population)
my_df <- data.frame>Nama = murders$state, Ranking = ranks)
head(my_df)
```

```
##      Nama Ranking
## 1  Alabama     29
## 2  Alaska      5
## 3  Arizona     36
## 4  Arkansas     20
## 5 California     51
## 6  Colorado     30
```

6. Peringkat Populasi Negara (terurut terkecil)

Urutkan populasi negara dari yang terkecil dengan mengulang langkah sebelumnya

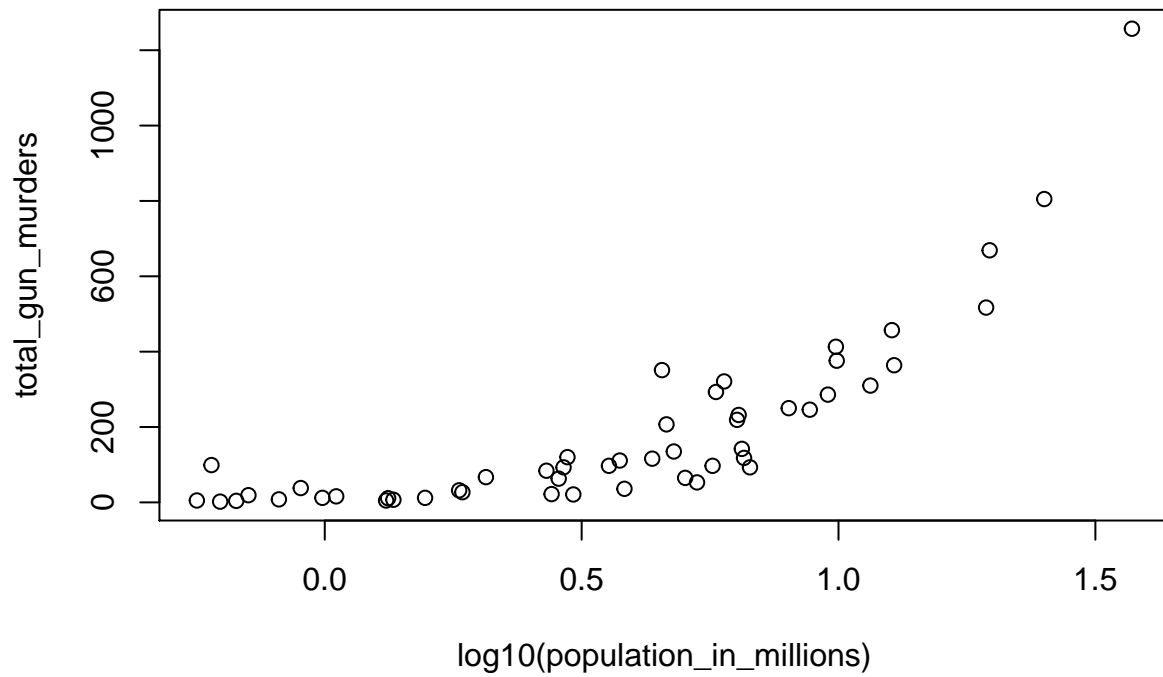
```
ranks <- rank(murders$population)
my_df <- data.frame>Nama = murders$state, Ranking = ranks)
ind <- order(my_df$Ranking)
my_df$Nama[ind]
```

```
## [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. Visualisasi data menggunakan Plot

visualisasikan total pembunuhan terhadap populasi dan mengidentifikasi hubungan antara keduanya

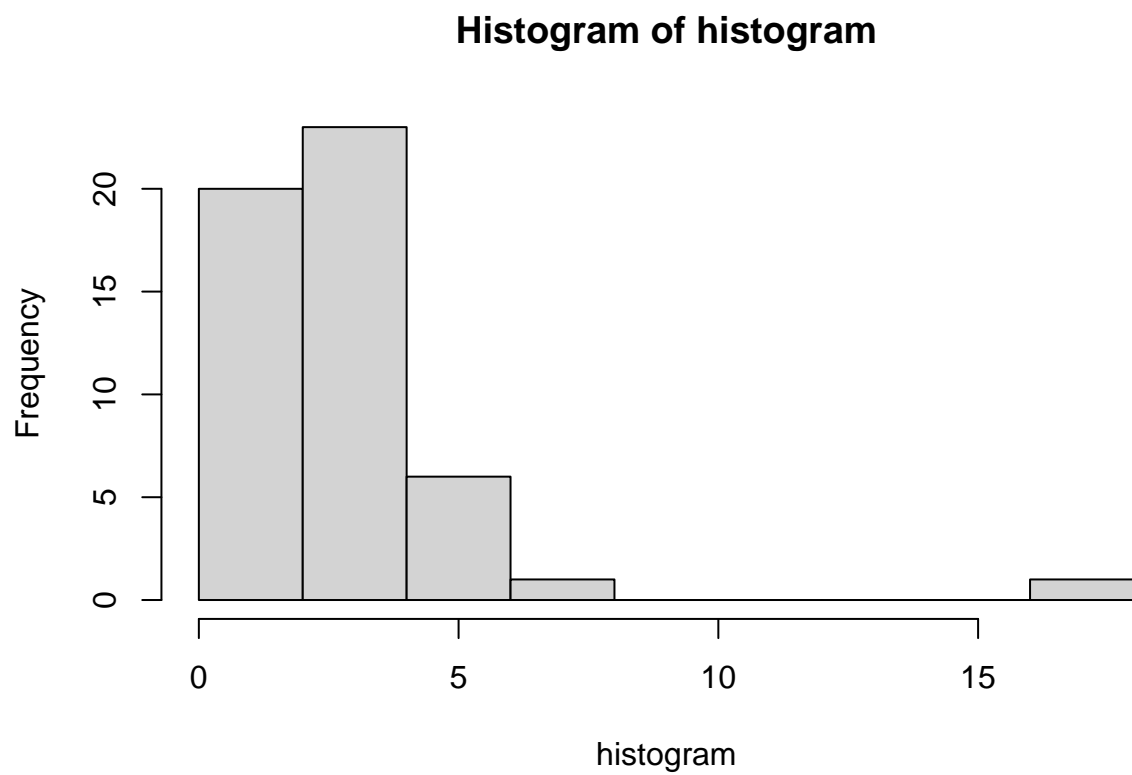
```
population_in_millions <- murders$population/106  
total_gun_murders <- murders$total  
plot(log10(population_in_millions), total_gun_murders)
```



8. Buat Histogram dari Populasi Negara Bagian

Buat histogram dari populasi negara bagian

```
histogram <- with(murders, total / population * 100000)  
hist(histogram)
```



9. Boxplot Populasi Negara Bagian/wilayah

Hasilkan boxplot dari populasi negara bagian berdasarkan wilayahnya

```
boxplot(population~region, data = murders)
```

