

Modul

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R Markdown

A. Tujuan Praktikum Memahami jenis-jenis tipe data pada R

B. Alokasi Waktu 1xpertemuan = 120 menit

C. Dasar Teori Variasi tipe data pada R memfasilitasi keberagaman jenis variabel data. Kita akan mendapatkan kemudahan dalam mendefinisikan tipe data yang kita miliki :

```
a = 2
class(a)

## [1] "numeric"
```

Data Frames cara paling umum yang dapat digunakan...

```
library(dslabs)
data(murders)
class(murders)

## [1] "data.frame"
```

lalu lanjutkan

```
str(murders)

## 'data.frame':   51 obs. of  5 variables:
## $ state      : chr  "Alabama" "Alaska" "Arizona" "Arkansas" ...
## $ abb        : chr  "AL" "AK" "AZ" "AR" ...
## $ region     : Factor w/ 4 levels "Northeast","South",...: 2 4 4 2 4 4 1 2
## $ population: num  4779736 710231 6392017 2915918 37253956 ...
## $ total      : num   135 19 232 93 1257 ...
```

lanjutkan lagi

```
head(murders)

##      state abb region population total
## 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
```

tampilkan populasi

```
murders$population
```

```
## [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
```

tampilkan

```
names(murders)
```

```
## [1] "state" "abb" "region" "population" "total"
```

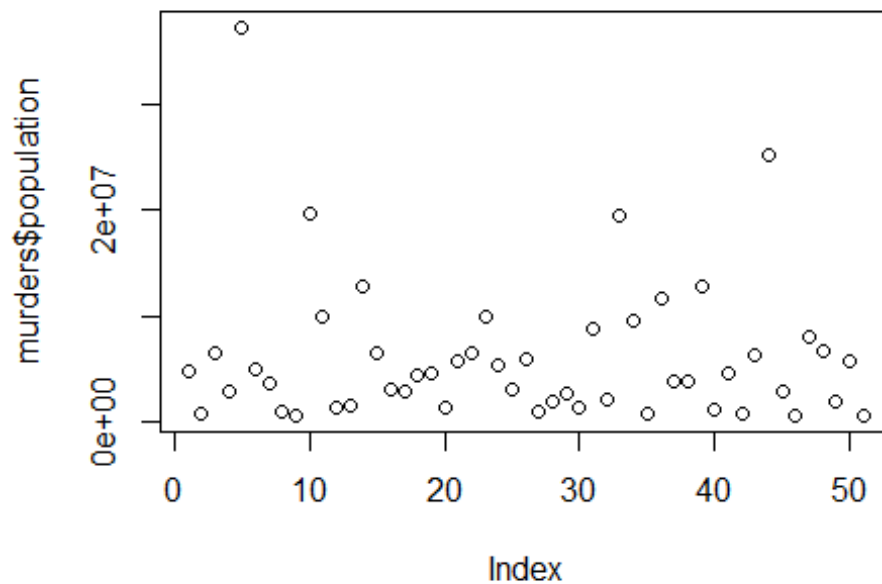
lagi

```
print(murders)
```

```
##           state abb      region population total
## 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
## 11     Georgia GA      South    9920000   376
## 12     Hawaii HI      West     1360301      7
## 13     Idaho ID      West     1567582     12
## 14     Illinois IL North Central 12830632   364
## 15     Indiana IN North Central 6483802   142
## 16     Iowa IA North Central 3046355     21
## 17     Kansas KS North Central 2853118     63
## 18     Kentucky KY      South    4339367   116
## 19     Louisiana LA      South    4533372   351
## 20     Maine ME      Northeast 1328361     11
```

## 21	Maryland	MD	South	5773552	293
## 22	Massachusetts	MA	Northeast	6547629	118
## 23	Michigan	MI	North Central	9883640	413
## 24	Minnesota	MN	North Central	5303925	53
## 25	Mississippi	MS	South	2967297	120
## 26	Missouri	MO	North Central	5988927	321
## 27	Montana	MT	West	989415	12
## 28	Nebraska	NE	North Central	1826341	32
## 29	Nevada	NV	West	2700551	84
## 30	New Hampshire	NH	Northeast	1316470	5
## 31	New Jersey	NJ	Northeast	8791894	246
## 32	New Mexico	NM	West	2059179	67
## 33	New York	NY	Northeast	19378102	517
## 34	North Carolina	NC	South	9535483	286
## 35	North Dakota	ND	North Central	672591	4
## 36	Ohio	OH	North Central	11536504	310
## 37	Oklahoma	OK	South	3751351	111
## 38	Oregon	OR	West	3831074	36
## 39	Pennsylvania	PA	Northeast	12702379	457
## 40	Rhode Island	RI	Northeast	1052567	16
## 41	South Carolina	SC	South	4625364	207
## 42	South Dakota	SD	North Central	814180	8
## 43	Tennessee	TN	South	6346105	219
## 44	Texas	TX	South	25145561	805
## 45	Utah	UT	West	2763885	22
## 46	Vermont	VT	Northeast	625741	2
## 47	Virginia	VA	South	8001024	250
## 48	Washington	WA	West	6724540	93
## 49	West Virginia	WV	South	1852994	27
## 50	Wisconsin	WI	North Central	5686986	97
## 51	Wyoming	WY	West	563626	5

```
plot(murders$population)
```



```
table(murders$population)
```

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

```
counts <- table(murders$population)
barplot(counts, main="Car Distribution by Gears and VS",
  xlab="Number of Gears", col=c("darkblue","red"),
  legend = rownames(counts))
```

