List

Kumpulan berbagai macam tipe data di R

```r
v <- c(1,2,3,4,5)
M <- matrix(1:10, nrow=2)
c1 <- c('Ignatius', 'Laynez', 'Faber', 'Xaverius',
'Kanisius')
c2 <- c(42,37,28,45,43)
```

```r
df <- data.frame(Nama = c1, ID = c2)
df
```

NAMA	ID
Ignatius	42
Laynez	37
Faber	28
Xaverius	45
Kanisius	43

```r
# Pendefinisian list
l <- list(v,M,df)
l
```

1.

   a. 1

   b. 2

   c. 3

   d. 4

   e. 5

2.

1	3	5	7	9
2	4	6	8	10

3.

NAMA	ID
Ignatius	42
Laynez	37
Faber	28
Xaverius	45
Kanisius	43

```
# penamaaan ulang indeks list

l2 <- list(sampel_vektor = v, sampel_matriks = M,
sample_data_frame = df)
l2
```

$sampel_vektor

1. 1
2. 2
3. 3
4. 4
5. 5

$sampel_matriks

1	3	5	7	9
2	4	6	8	10

$sample_data_frame

NAMA	ID
Ignatius	42
Laynez	37
Faber	28
Xaverius	45
Kanisius	43

```
l2[1]
```

$sampel_vektor =

1. 1
2. 2
3. 3
4. 4
5. 5

```
l2['sampel_vektor']
```

$sampel_vektor =

1. 1
2. 2
3. 3
4. 4
5. 5

```
l2$sampel_vektor
```

1. 1
2. 2
3. 3
4. 4
5. 5

```
l2[['sampel_vektor']]
```

1. 1
2. 2
3. 3
4. 4
5. 5

```
print(class(l2['sampel_vektor']))
print(class(l2[1]))
```

```
[1] "list"
[1] "list"
```

```
print(class(l2$sampel_vektor))
print(class(l2[['sampel_vektor']]))
```

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

```
# Mengombinasikan dua list
l3 <- c(l,l2)
l3
```

[[1]]
1. 1
2. 2
3. 3
4. 4
5. 5

[[2]]

1	3	5	7	9
2	4	6	8	10

[[3]]

NAMA	ID
Ignatius	42
Laynez	37
Faber	28
Xaverius	45
Kanisius	43

$sampel_vektor
1. 1
2. 2
3. 3
4. 4
5. 5

$sampel_matriks

1	3	5	7	9
2	4	6	8	10

$sample_data_frame

NAMA	ID
Ignatius	42
Laynez	37
Faber	28
Xaverius	45
Kanisius	43

```
str(l2)
```

```
List of 3
 $ sampel_vektor    : num [1:5] 1 2 3 4 5
 $ sampel_matriks   : int [1:2, 1:5] 1 2 3 4 5 6 7 8 9 10
 $ sample_data_frame:'data.frame':  5 obs. of  2
variables:
  ..$ Nama: Factor w/ 5 levels "Faber","Ignatius",..: 2 4
1 5 3
  ..$ ID  : num [1:5] 42 37 28 45 43
```

```
summary(l2)
```

```
                  Length Class      Mode
sampel_vektor       5     -none-     numeric
sampel_matriks     10     -none-     numeric
sample_data_frame   2     data.frame list
```