

**LAPORAN PRAKTIKUM**  
**STATISTIKA**  
**PERTEMUAN KE – 4**



**Disusun Oleh :**

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**AKAKOM**  
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**2020**

# MANAJEMEN DATA MENGGUNAKAN COMMENT LINE

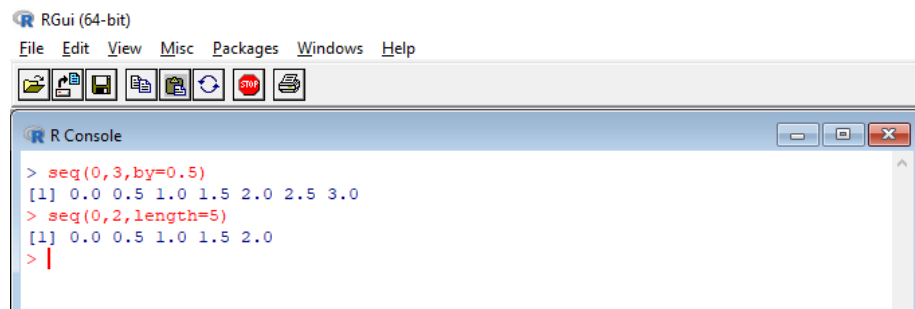
## A. Tujuan

- Dapat melakukan manajemen data menggunakan Comment line

## B. Listing Dan Pembahasan Praktik

### a. Vektor

#### 1. Memasukan data dengan perintah squen

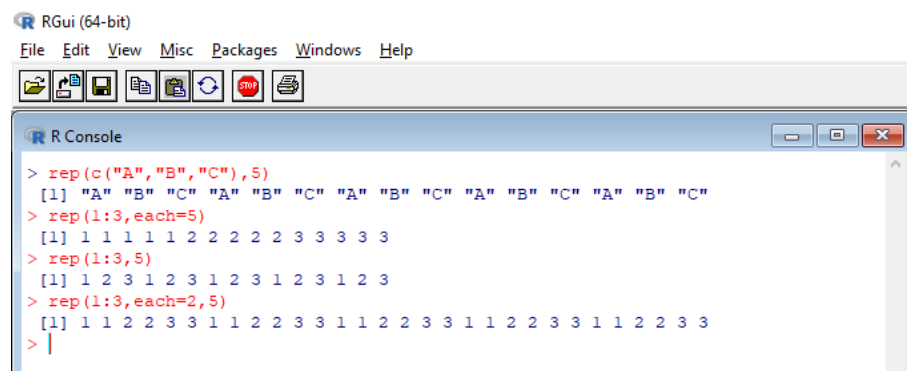


```
RGui (64-bit)
File Edit View Misc Packages Windows Help

R Console
> seq(0,3,by=0.5)
[1] 0.0 0.5 1.0 1.5 2.0 2.5 3.0
> seq(0,2,length=5)
[1] 0.0 0.5 1.0 1.5 2.0
> |
```

- Atas, memasukan data dari 0 sampai 3 dengan penambahan 0.5
- Bawah, memasukan data dari 0 sampai 3 dengan panjang 5

#### 2. Memasukan data dengan perintah replica

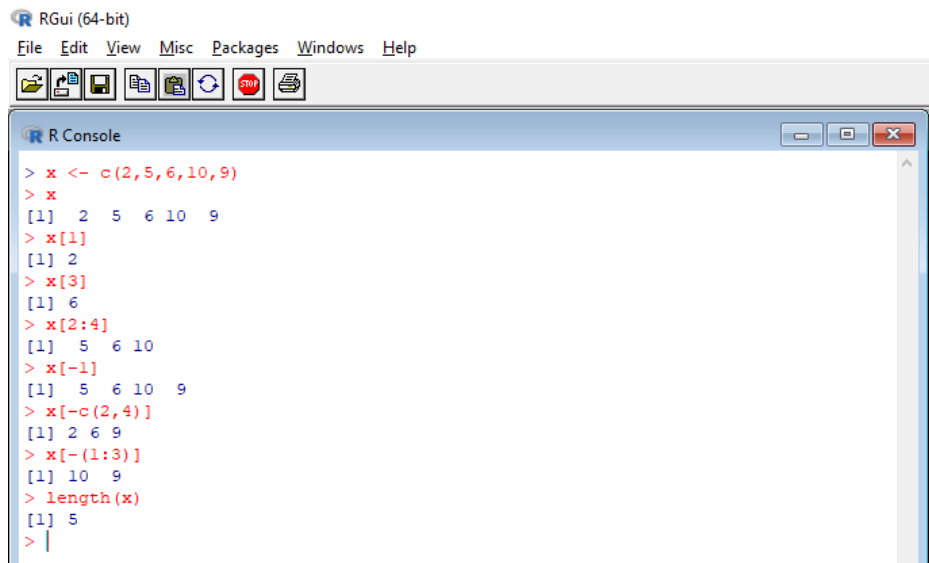


```
RGui (64-bit)
File Edit View Misc Packages Windows Help

R Console
> rep(c("A","B","C"),5)
[1] "A" "B" "C" "A" "B" "C" "A" "B" "C" "A" "B" "C"
> rep(1:3,each=5)
[1] 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3
> rep(1:3,5)
[1] 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
> rep(1:3,each=2,5)
[1] 1 1 2 2 3 3 1 1 2 2 3 3 1 1 2 2 3 3 1 1 2 2 3 3
> |
```

- a) Memasukan data "A", "B", "C" sebanyak 5 kali.
- b) Memasukan data 1 sampai 3, masing masing sebanyak 5 kali.
- c) Memasukan data 1 sampai 3, di ulang sebanyak 5 kali
- d) Memasukan data 1 sampai 3, masing masing 2 kali dan di ulang sebanyak 5 kali.

### 3. Memasukan data dengan fungsi C

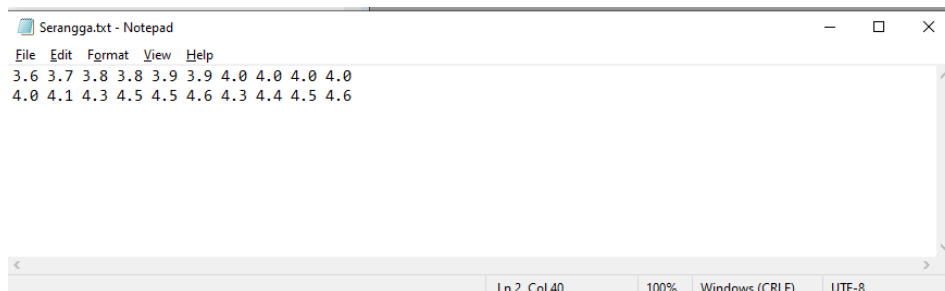


```
RGui (64-bit)
File Edit View Misc Packages Windows Help

R Console
> x <- c(2,5,6,10,9)
> x
[1] 2 5 6 10 9
> x[1]
[1] 2
> x[3]
[1] 6
> x[2:4]
[1] 5 6 10
> x[-1]
[1] 5 6 10 9
> x[-c(2,4)]
[1] 2 6 9
> x[-(1:3)]
[1] 10 9
> length(x)
[1] 5
> |
```

- Memasukkan data dan simpan pada variabel x
- Untuk melihat nilai variable, ketikan varablenya kemudian enter
- Mengakses elemen ke-1 dari variable x
- Mengakses elemen ke-3 dari variable x
- Mengakses elemen ke-2 s.d ke 4 dari variable x
- Mengakses x tanpa elemen ke-1
- Mengakses x tanpa elemen ke-2 dan ke-4
- Mengakses x tanpa elemen ke 1-3
- Menghitung banyak data

### 4. Memasukan data dengan fungsi scan



```
Serangga.txt - Notepad
File Edit Format View Help
3.6 3.7 3.8 3.8 3.9 3.9 4.0 4.0 4.0 4.0
4.0 4.1 4.3 4.5 4.5 4.6 4.3 4.4 4.5 4.6
Ln 2, Col 40 100% Windows (CRLF) UTF-8
```

- Menuliskan data di notepad terlebih dahulu dan disimpan di direktory kerja, agar bisa di panggil

```
RGui (64-bit)
File Edit View Misc Packages Windows Help

> serangga <- scan ("Serangga.txt")
Read 20 items
> serangga
[1] 3.6 3.7 3.8 3.8 3.9 3.9 4.0 4.0 4.0 4.0 4.0 4.1 4.3 4.5 4.5 4.6 4.3 4.4 4.5
[20] 4.6
> |
```

b. Memanggil file notepad yang sudah di simpan di directory kerja

c. Menampilkan data

## 5. Memasukan data dengan fungsi read.table

```
erupsi.txt - Notepad
File Edit Format View Help
Erupsi      Waktu
3           79
1           54
3           74
2           62
4           85
```

a. Menulis data di notepad dengan format seperti tersebut

```
RGui (64-bit)
File Edit View Misc Packages Windows Help

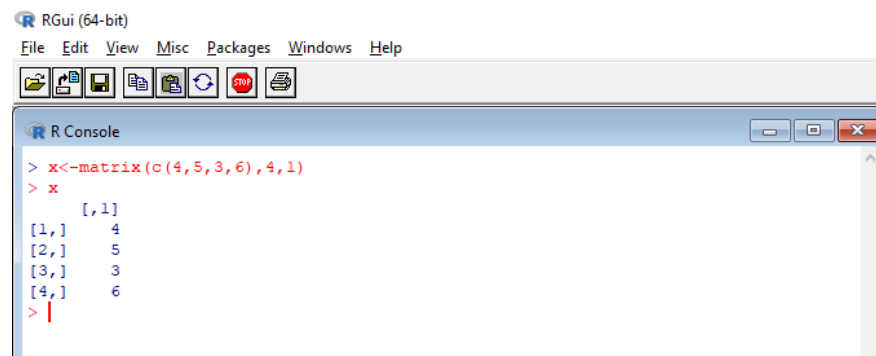
> erupsi <- read.table("erupsi.txt", header= T)
> erupsi
  Erupsi Waktu
1      3    79
2      1    54
3      3    74
4      2    62
5      4    85
> |
```

b. Memanggil file serangga.txt dengan read.table

c. Menampilkan data

## b. Matriks

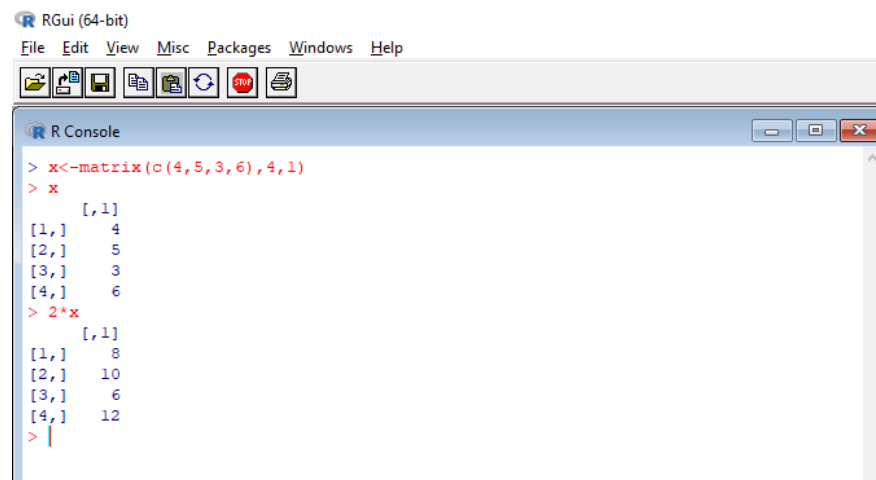
1.



```
RGui (64-bit)
File Edit View Misc Packages Windows Help

R Console
> x<-matrix(c(4,5,3,6),4,1)
> x
      [,1]
[1,]    4
[2,]    5
[3,]    3
[4,]    6
> |
```

2. Mengkalikan matrik dengan 2

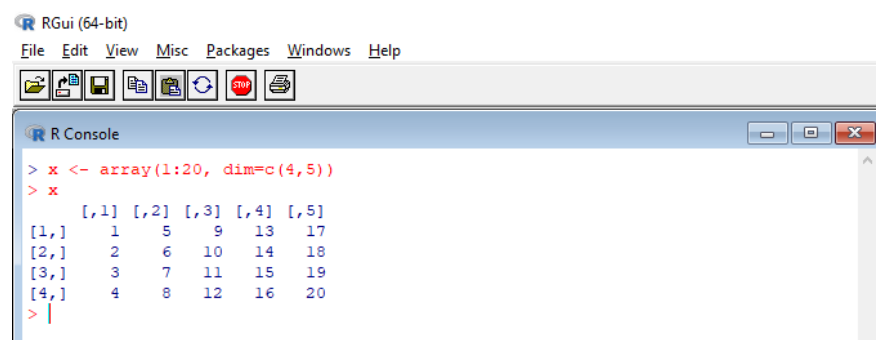


```
RGui (64-bit)
File Edit View Misc Packages Windows Help

R Console
> x<-matrix(c(4,5,3,6),4,1)
> x
      [,1]
[1,]    4
[2,]    5
[3,]    3
[4,]    6
> 2*x
      [,1]
[1,]    8
[2,]   10
[3,]    6
[4,]   12
> |
```

## c. Array

1. Perintah membuat array 4 x 5

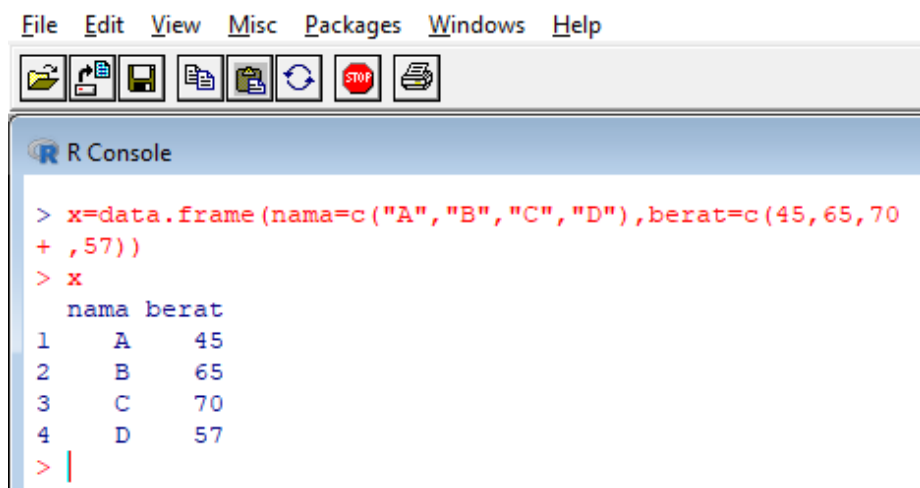


```
RGui (64-bit)
File Edit View Misc Packages Windows Help

R Console
> x <- array(1:20, dim=c(4,5))
> x
      [,1] [,2] [,3] [,4] [,5]
[1,]    1    5    9   13   17
[2,]    2    6   10   14   18
[3,]    3    7   11   15   19
[4,]    4    8   12   16   20
> |
```

## d. Frame

1. RGui (64-bit)



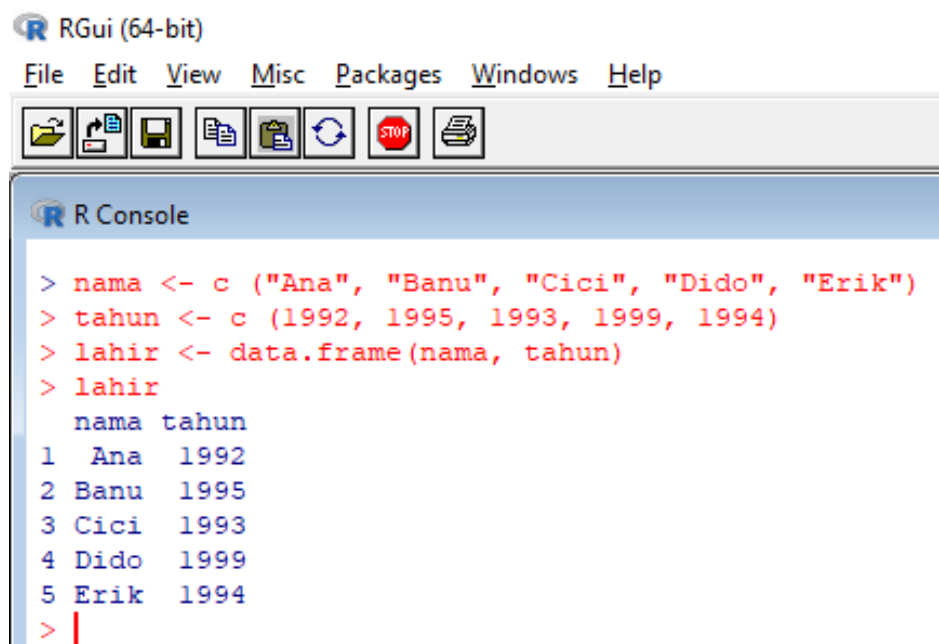
The screenshot shows the RGui (64-bit) interface. The menu bar includes File, Edit, View, Misc, Packages, Windows, and Help. The toolbar contains icons for file operations and execution. The R Console window displays the following code and output:

```
> x=data.frame(nama=c("A","B","C","D"),berat=c(45,65,70
+ ,57))
> x
```

|   | nama | berat |
|---|------|-------|
| 1 | A    | 45    |
| 2 | B    | 65    |
| 3 | C    | 70    |
| 4 | D    | 57    |

```
> |
```

2. Penulisan source code frame dapat ditulis dengan cara berbeda, seperti di bawah ini



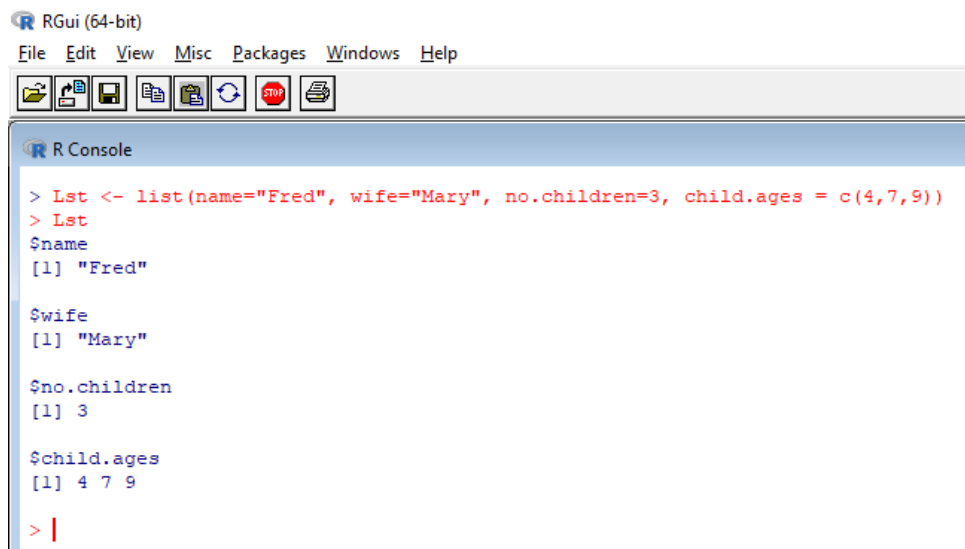
The screenshot shows the RGui (64-bit) interface. The menu bar includes File, Edit, View, Misc, Packages, Windows, and Help. The toolbar contains icons for file operations and execution. The R Console window displays the following code and output:

```
> nama <- c("Ana", "Banu", "Cici", "Dido", "Erik")
> tahun <- c(1992, 1995, 1993, 1999, 1994)
> lahir <- data.frame(nama, tahun)
> lahir
```

|   | nama | tahun |
|---|------|-------|
| 1 | Ana  | 1992  |
| 2 | Banu | 1995  |
| 3 | Cici | 1993  |
| 4 | Dido | 1999  |
| 5 | Erik | 1994  |

```
> |
```

## e. List



```
RGui (64-bit)
File Edit View Misc Packages Windows Help

> Lst <- list(name="Fred", wife="Mary", no.children=3, child.ages = c(4,7,9))
> Lst
$name
[1] "Fred"

$wife
[1] "Mary"

$no.children
[1] 3

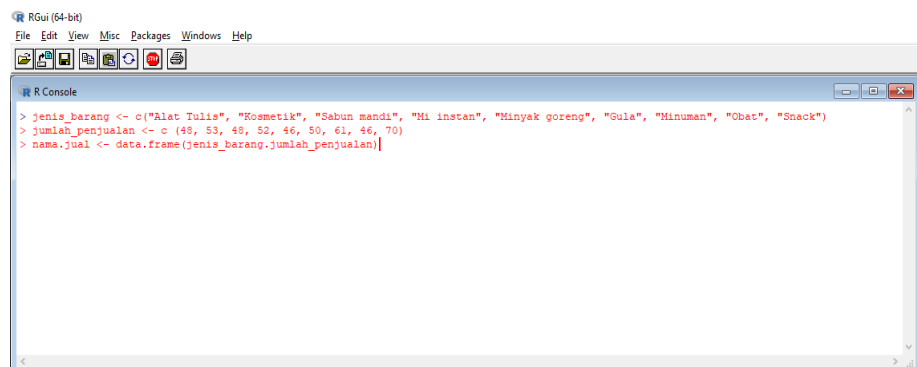
$child.ages
[1] 4 7 9

> |
```

## C. Latihan

### 1. Data penjualan Toko Murah

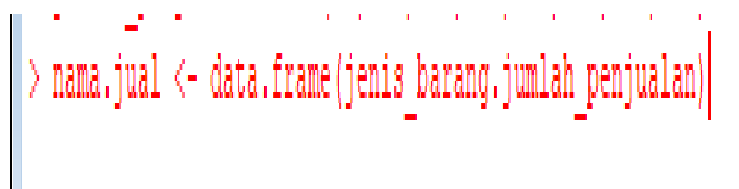
#### a) Entry data dengan menggunakan frame



```
RGui (64-bit)
File Edit View Misc Packages Windows Help

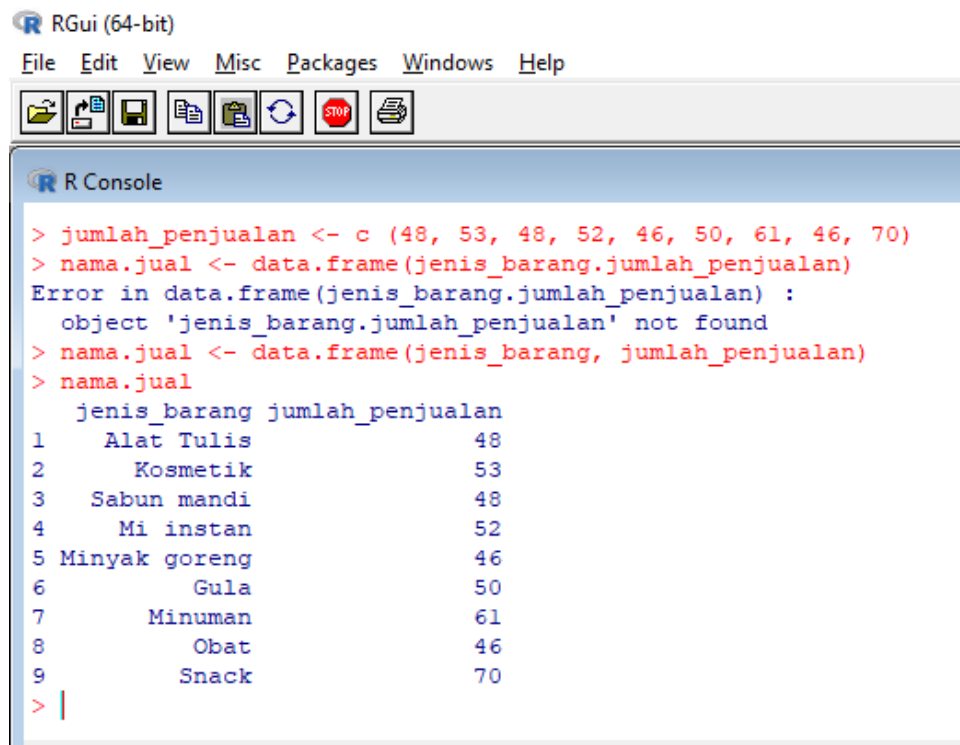
> jenis_barang <- c("Alat Tulis", "Kosmetik", "Sabun mandi", "Mi instan", "Minyak goreng", "Gula", "Minuman", "Obat", "Snack")
> jumlah_penjualan <- c(48, 53, 48, 52, 46, 50, 61, 46, 70)
> nama.jual <- data.frame(jenis_barang, jumlah_penjualan)
```

#### b) Simpan data dengan nama.jual



```
> nama.jual <- data.frame(jenis_barang, jumlah_penjualan)
```

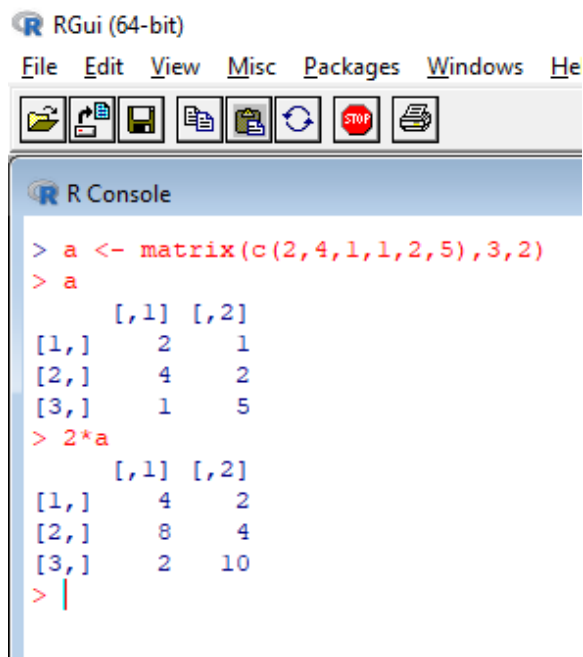
d) Tampilkan data



```
RGui (64-bit)
File Edit View Misc Packages Windows Help

> jumlah_penjualan <- c (48, 53, 48, 52, 46, 50, 61, 46, 70)
> nama.jual <- data.frame(jenis_barang.jumlah_penjualan)
Error in data.frame(jenis_barang.jumlah_penjualan) :
  object 'jenis_barang.jumlah_penjualan' not found
> nama.jual <- data.frame(jenis_barang, jumlah_penjualan)
> nama.jual
  jenis_barang jumlah_penjualan
1   Alat Tulis             48
2   Kosmetik             53
3 Sabun mandi             48
4   Mi instan             52
5 Minyak goreng           46
6      Gula              50
7   Minuman             61
8      Obat             46
9     Snack             70
> |
```

2. . Diketahui matrik  $A = \begin{bmatrix} 2 & 1 & 4 & 2 & 1 & 5 \end{bmatrix}$  dan  $B = \begin{bmatrix} 1 & 3 & 1 & 2 & 1 & 4 \end{bmatrix}$   
tentukan :  
a)  $2A$

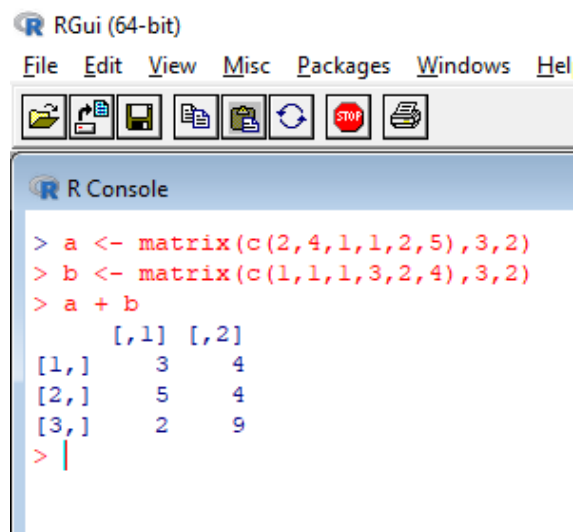


```
RGui (64-bit)
File Edit View Misc Packages Windows He

> a <- matrix(c(2,4,1,1,2,5),3,2)
> a
      [,1] [,2]
[1,]    2    1
[2,]    4    2
[3,]    1    5
> 2*a
      [,1] [,2]
[1,]    4    2
[2,]    8    4
[3,]    2   10
> |
```



b) A+B



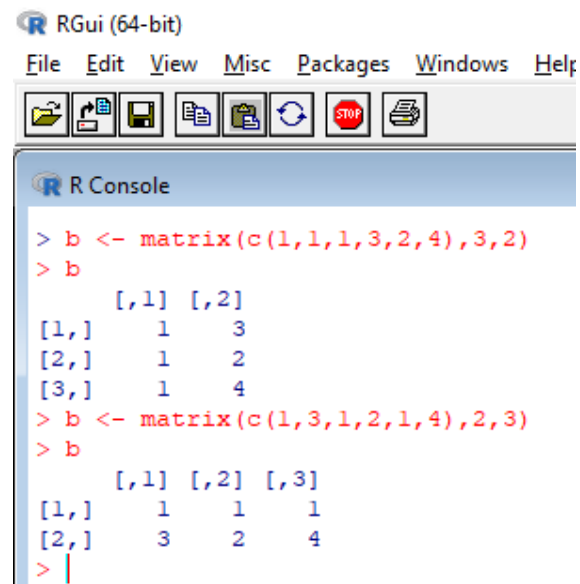
The screenshot shows the RGui (64-bit) window with the R Console pane active. The console displays the following R code and its output:

```
> a <- matrix(c(2,4,1,1,2,5),3,2)
> b <- matrix(c(1,1,1,3,2,4),3,2)
> a + b
```

|      | [,1] | [,2] |
|------|------|------|
| [1,] | 3    | 4    |
| [2,] | 5    | 4    |
| [3,] | 2    | 9    |

```
> |
```

c) Tranpose B



The screenshot shows the RGui (64-bit) window with the R Console pane active. The console displays the following R code and its output:

```
> b <- matrix(c(1,1,1,3,2,4),3,2)
> b
```

|      | [,1] | [,2] |
|------|------|------|
| [1,] | 1    | 3    |
| [2,] | 1    | 2    |
| [3,] | 1    | 4    |

```
> b <- matrix(c(1,3,1,2,1,4),2,3)
> b
```

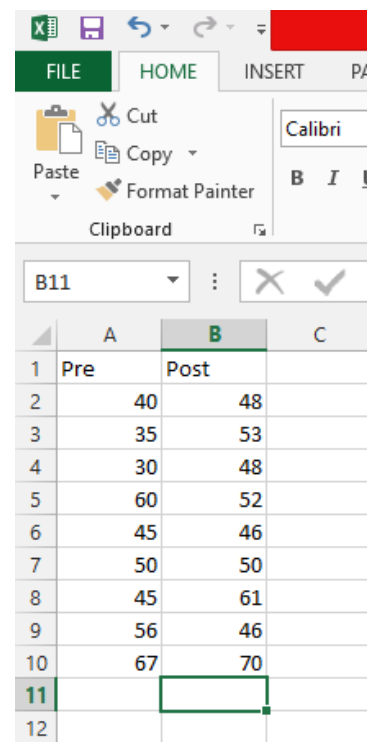
|      | [,1] | [,2] | [,3] |
|------|------|------|------|
| [1,] | 1    | 1    | 1    |
| [2,] | 3    | 2    | 4    |

```
> |
```

## D. Tugas

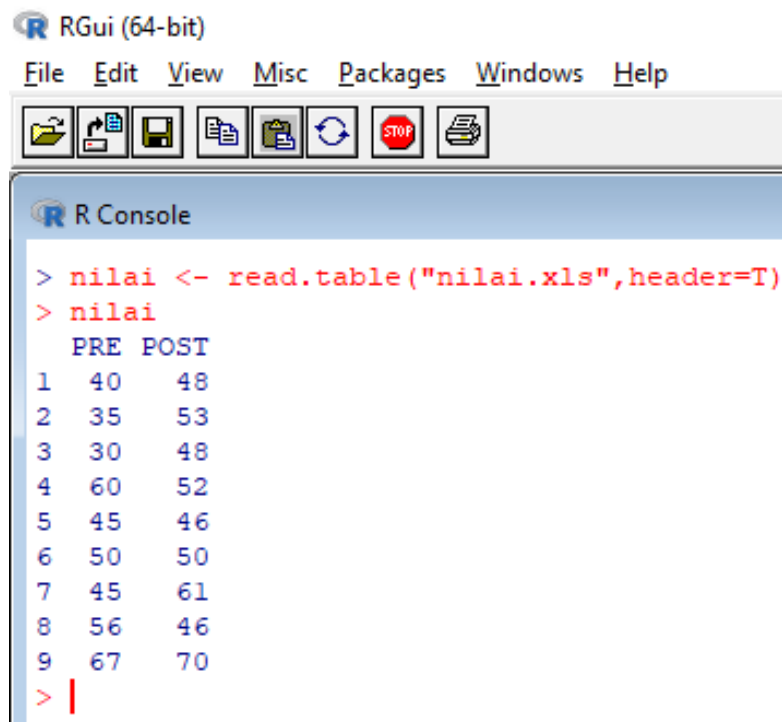
| Pre | Post |
|-----|------|
| 40  | 48   |
| 35  | 53   |
| 30  | 48   |
| 60  | 52   |
| 45  | 46   |
| 50  | 50   |
| 45  | 61   |
| 46  | 46   |
| 67  | 70   |

- a. Entry data tersebut menggunakan MExcel simpan dengan nama Nilai



|    | A   | B    | C |
|----|-----|------|---|
| 1  | Pre | Post |   |
| 2  | 40  | 48   |   |
| 3  | 35  | 53   |   |
| 4  | 30  | 48   |   |
| 5  | 60  | 52   |   |
| 6  | 45  | 46   |   |
| 7  | 50  | 50   |   |
| 8  | 45  | 61   |   |
| 9  | 56  | 46   |   |
| 10 | 67  | 70   |   |
| 11 |     |      |   |
| 12 |     |      |   |

- b. Dengan menggunakan fungsi `read.table` baca data `NILAI.xls`, tampilkan data tersebut



The screenshot shows the RGui (64-bit) interface. The menu bar includes File, Edit, View, Misc, Packages, Windows, and Help. Below the menu bar is a toolbar with icons for file operations and execution. The R Console window displays the following code and output:

```
> nilai <- read.table("nilai.xls",header=T)
> nilai
```

|   | PRE | POST |
|---|-----|------|
| 1 | 40  | 48   |
| 2 | 35  | 53   |
| 3 | 30  | 48   |
| 4 | 60  | 52   |
| 5 | 45  | 46   |
| 6 | 50  | 50   |
| 7 | 45  | 61   |
| 8 | 56  | 46   |
| 9 | 67  | 70   |

```
> |
```

## E. Kesimpulan

Setelah melakukan praktik ini dapat disimpulkan bahwa manajemen data menggunakan Comment line dapat dilakukan di R-Gui. Melakukan perhitungan data dan manipulasi data dapat sangat mudah dilakukan di R-Gui.