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<p>Hari/Tanggal: Kamis, 29 September 2022</p>		<p>Nama Asisten Labratorium:</p> <ol style="list-style-type: none"> Azhar Rizki Zulma 065001900001 Arfa Maulana 064001900039

Pengelolaan Data pada Data Frame

1. Teori Singkat

R (juga dikenal sebagai GNU S) adalah bahasa pemrograman dan perangkat lunak untuk analisis statistika dan grafik. R dibuat oleh Ross Ihaka dan Robert Gentleman di Universitas Auckland, Selandia Baru, dan kini dikembangkan oleh R Development Core Team, di mana Chambers merupakan anggotanya. R dinamakan sebagian setelah nama dua pembuatnya (Robert Gentleman dan Ross Ihaka), dan sebagian sebagian dari permainan nama dari S.

Bahasa R kini menjadi standar de facto di antara statistikawan untuk pengembangan perangkat lunak statistika, serta digunakan secara luas untuk pengembangan perangkat lunak statistika dan analisis data. R merupakan bagian dari proyek GNU. Kode sumbernya tersedia secara bebas di bawah Lisensi Publik Umum GNU, dan versi biner prekompilasinya tersedia untuk berbagai sistem operasi. R menggunakan antarmuka baris perintah, meski beberapa antarmuka pengguna grafik juga tersedia.

R menyediakan berbagai teknik statistika (permodelan linier dan nonlinier, uji statistik klasik, analisis deret waktu, klasifikasi, klasterisasi, dan sebagainya) serta grafik. R, sebagaimana S, dirancang sebagai bahasa komputer sebenarnya, dan mengizinkan penggunaannya untuk menambah fungsi tambahan dengan mendefinisikan fungsi baru. Kekuatan besar dari R yang lain adalah fasilitas grafiknya, yang menghasilkan grafik dengan kualitas publikasi yang dapat memuat simbol matematika. R memiliki format dokumentasi seperti LaTeX, yang digunakan untuk menyediakan dokumentasi yang lengkap, baik secara daring (dalam berbagai format) maupun secara cetakan.



RStudio merupakan integrated development environment (IDE) khusus bagi bahasa pemrograman R. Software ini menyediakan R console, code editor dengan syntax highlighting, code completion dan direct execution, environment, history, connections, dan fitur-fitur tambahan lainnya seperti file manager, packages manager, help, plot viewer, hingga project versioning menggunakan git. RStudio sebenarnya memiliki dua versi, yaitu open source (gratis) dan commercial edition (berbayar). RStudio juga tidak hanya terbatas dalam bentuk aplikasi dekstop, melainkan terdapat versi RStudio Server, yaitu RStudio yang dapat diakses melalui browser yang terhubung dengan suatu jaringan komputer. Untuk saat ini, versi RStudio yang akan dijelaskan hanyalah RStudio open source berbasis dekstop saja.

2. Alat dan Bahan

Hardware : Laptop/PC

Software : R Studio

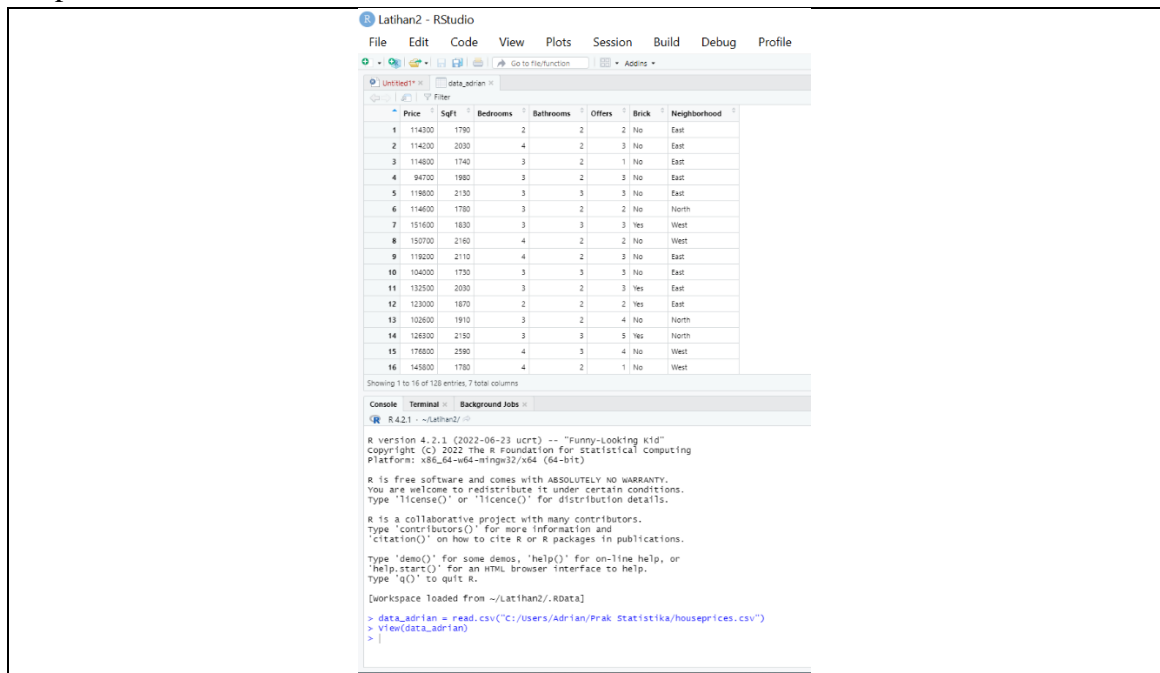
3. Elemen Kompetensi

a. Latihan pertama – Merge Data

1. Jalankan source code berikut. Ganti nama variable (seperti data_nama) menjadi variable dengan nama kalian masing - masing. Data yang digunakan adalah data houseprice.csv. Melakukan Read CSV dengan cara menginput data houseprice, sesuaikan dengan lokasi direktori dimana kalian menyimpan file csvnya.

```
data_nama = read.csv("C:/Users/arfa/Bahan Aslab Statistika 2021/houseprices.csv")  
View(data_nama)
```

Output:



The screenshot displays the RStudio IDE. The top menu bar includes File, Edit, Code, View, Plots, Session, Build, Debug, and Profile. The main editor window shows a data frame with 16 rows and 7 columns: Price, Sqft, Bedrooms, Bathrooms, Offices, Brick, and Neighborhood. The data is as follows:

	Price	Sqft	Bedrooms	Bathrooms	Offices	Brick	Neighborhood
1	114300	1700	2	2	2	No	East
2	114200	2030	4	2	3	No	East
3	114800	1740	3	2	1	No	East
4	94700	1980	3	2	3	No	East
5	119800	2130	3	3	3	No	East
6	114600	1700	3	2	2	No	North
7	151600	1830	3	3	3	Yes	West
8	150700	2160	4	2	2	No	West
9	119200	2110	4	2	3	No	East
10	104000	1730	3	3	3	No	East
11	132500	2030	3	2	3	Yes	East
12	123000	1870	2	2	2	Yes	East
13	102600	1910	3	2	4	No	North
14	126300	2150	3	3	5	Yes	North
15	176800	2590	4	5	4	No	West
16	145800	1700	4	2	1	No	West

The console window shows the following output:

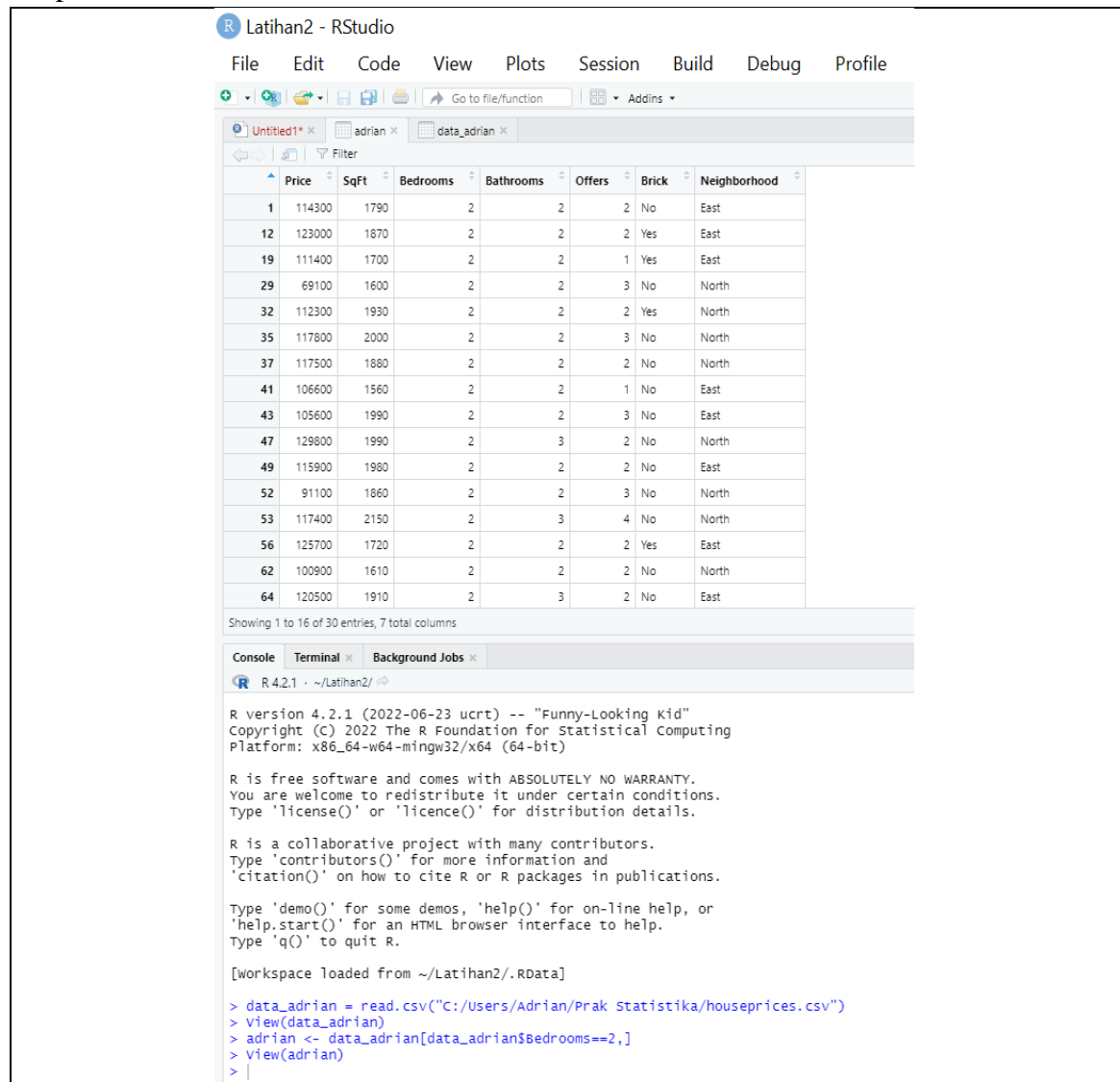
```
R version 4.2.1 (2022-06-23 ucrt) -- "Funny-looking kid"  
copyright (c) 2022 The R Foundation for statistical computing  
Platform: x86_64-w64-mingw32/x64 (64-bit)  
  
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Type 'demo()' for some demos, 'help()' for on-line help, or  
'help.start()' for an HTML browser interface to help.  
Type 'q()' to quit R.  
  
[workspace loaded from ~/Latihan2/RData]  
> data_adrian = read.csv("C:/Users/Adrian/Prak Statistika/houseprices.csv")  
> View(data_adrian)  
>
```



2. Lakukan subset data dengan cara sub set data frame khusus yang memiliki nilai variabel Bedrooms =2

```
nama <- data_nama[data_nama$Bedrooms==2,]  
View(nama)
```

Output:



Latihan2 - RStudio

File Edit Code View Plots Session Build Debug Profile

Go to file/function Addins

Filter

	Price	SqFt	Bedrooms	Bathrooms	Offers	Brick	Neighborhood
1	114300	1790	2	2	2	No	East
12	123000	1870	2	2	2	Yes	East
19	111400	1700	2	2	1	Yes	East
29	69100	1600	2	2	3	No	North
32	112300	1930	2	2	2	Yes	North
35	117800	2000	2	2	3	No	North
37	117500	1880	2	2	2	No	North
41	106600	1560	2	2	1	No	East
43	105600	1990	2	2	3	No	East
47	129800	1990	2	3	2	No	North
49	115900	1980	2	2	2	No	East
52	91100	1860	2	2	3	No	North
53	117400	2150	2	3	4	No	North
56	125700	1720	2	2	2	Yes	East
62	100900	1610	2	2	2	No	North
64	120500	1910	2	3	2	No	East

Showing 1 to 16 of 30 entries, 7 total columns

Console Terminal Background Jobs

R 4.2.1 ~ /Latihan2/

R version 4.2.1 (2022-06-23 ucrt) -- "Funny-Looking Kid"
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'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[workspace loaded from ~/Latihan2/.RData]

```
> data_adrian = read.csv("C:/Users/Adrian/Prak Statistika/houseprices.csv")  
> view(data_adrian)  
> adrian <- data_adrian[data_adrian$Bedrooms==2,]  
> view(adrian)  
>
```

3. Selanjutnya ialah mengubah nama variabel. Berikut adalah tahapan untuk mengubah nilai dalam kolom Bathrooms dalam kondisi jika Bathrooms >2 , maka akan diganti dengan nilai large, jika tidak maka small.

```
nama$Bathrooms <- ifelse(nama$Bathrooms > 2, c("large"), c("small"))  
View(nama)
```



Output:

The screenshot shows the RStudio interface with a data table and a console window. The data table has 7 columns: Price, SqFt, Bedrooms, Bathrooms, Offers, Brick, and Neighborhood. The console window shows the R version (4.2.1) and the execution of several R commands to load and filter data.

	Price	SqFt	Bedrooms	Bathrooms	Offers	Brick	Neighborhood
1	114300	1790	2	small	2	No	East
12	123000	1870	2	small	2	Yes	East
19	111400	1700	2	small	1	Yes	East
29	69100	1600	2	small	3	No	North
32	112300	1930	2	small	2	Yes	North
35	117800	2000	2	small	3	No	North
37	117500	1880	2	small	2	No	North
41	106600	1560	2	small	1	No	East
43	105600	1990	2	small	3	No	East
47	129800	1990	2	large	2	No	North
49	115900	1980	2	small	2	No	East
52	91100	1860	2	small	3	No	North
53	117400	2150	2	large	4	No	North
56	125700	1720	2	small	2	Yes	East
62	100900	1610	2	small	2	No	North
64	120500	1910	2	large	2	No	East

```

R 4.2.1 ~ /Latihan2/
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'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[Workspace loaded from ~/Latihan2/.RData]

> data_adrian = read.csv("C:/Users/Adrian/Prak Statistika/houseprices.csv")
> view(data_adrian)
> adrian <- data_adrian[data_adrian$Bedrooms==2,]
> view(adrian)
> adrian$Bathrooms <- ifelse(adrian$Bathrooms > 2, c("large"), c("small"))
> view(adrian)
>
  
```

4. Lalu langkah selanjutnya adalah menambah variabel. Tahap 1 → Membuat variable baru dari dataku1 dengan nilai sesuai kondisi ifelse yang ditentukan. Sesuaikan nama variable baru dengan nama praktikan.

```
nama$newvariable <- ifelse(nama$Offers > 2, c("large"), c("small"))
View(nama)
```

Output



R Latihan2 - RStudio

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Filter

	Price	SqFt	Bedrooms	Bathrooms	Offers	Brick	Neighborhood	newvariable
1	114300	1790	2	small	2	No	East	small
12	123000	1870	2	small	2	Yes	East	small
19	111400	1700	2	small	1	Yes	East	small
29	69100	1600	2	small	3	No	North	large
32	112300	1930	2	small	2	Yes	North	small
35	117800	2000	2	small	3	No	North	large
37	117500	1880	2	small	2	No	North	small
41	106600	1560	2	small	1	No	East	small
43	105600	1990	2	small	3	No	East	large
47	129800	1990	2	large	2	No	North	small
49	115900	1980	2	small	2	No	East	small
52	91100	1860	2	small	3	No	North	large
53	117400	2150	2	large	4	No	North	large
56	125700	1720	2	small	2	Yes	East	small
62	100900	1610	2	small	2	No	North	small
64	120500	1910	2	large	2	No	East	small

Showing 1 to 17 of 30 entries, 8 total columns

Console Terminal Background Jobs

R 4.2.1 · ~/Latihan2/

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Type 'q()' to quit R.

[workspace loaded from ~/Latihan2/.RData]

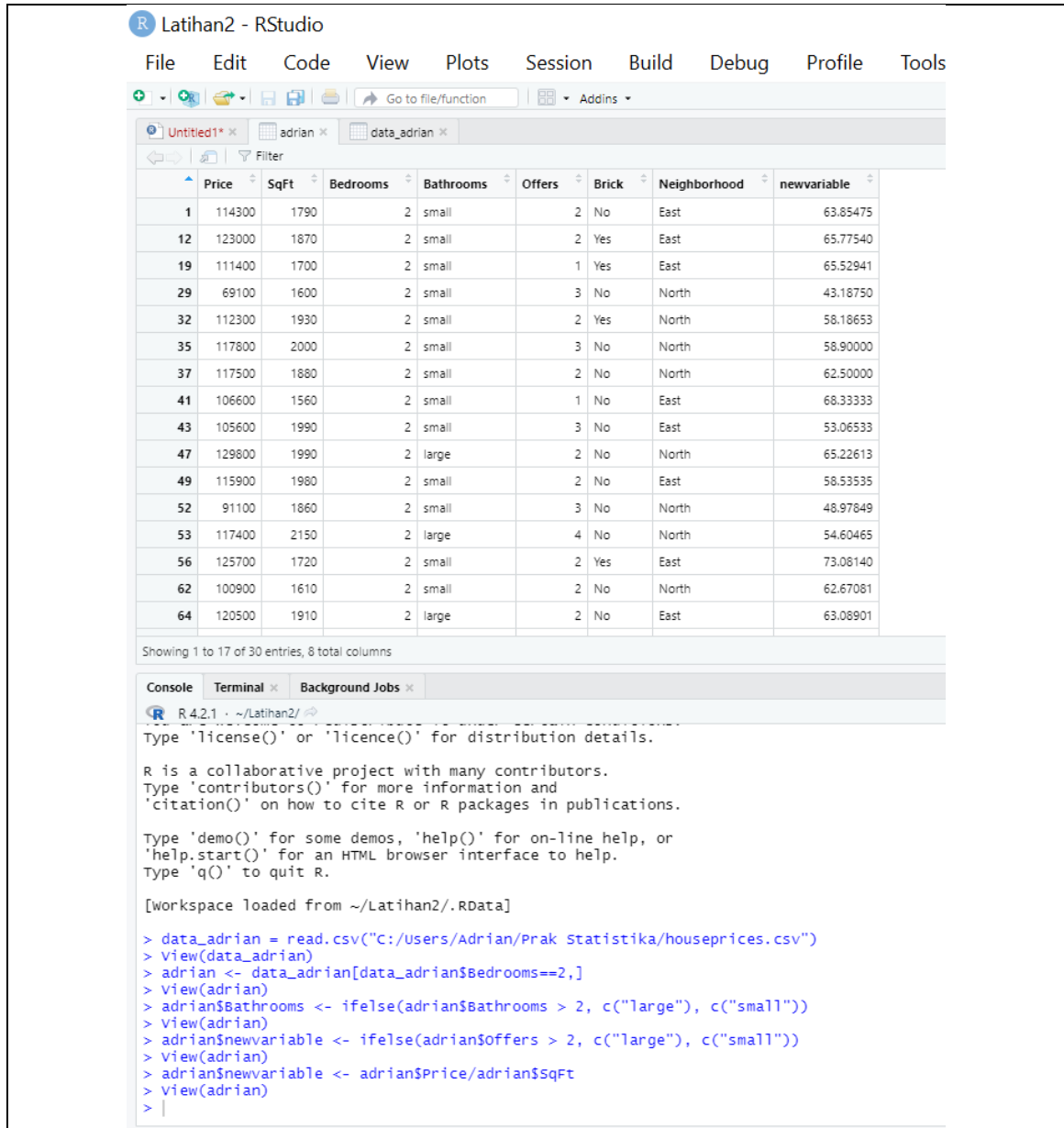
```
> data_adrian = read.csv("C:/Users/Adrian/Prak Statistika/houseprices.csv")
> view(data_adrian)
> adrian <- data_adrian[data_adrian$Bedrooms==2,]
> view(adrian)
> adrian$Bathrooms <- ifelse(adrian$Bathrooms > 2, c("large"), c("small"))
> view(adrian)
> adrian$newvariable <- ifelse(adrian$offers > 2, c("large"), c("small"))
> view(adrian)
> |
```

Tahap 2 → Mengubah isi baris data dari kolom baru yang telah dibuat

```
nama$newvariable <- nama$Price/nama$SqFt
View(nama)
```



Output:



The screenshot shows the RStudio interface with a data table and a console window. The data table has 9 columns: Price, SqFt, Bedrooms, Bathrooms, Offers, Brick, Neighborhood, and newvariable. The console window shows the R script used to create the data table and filter it.

	Price	SqFt	Bedrooms	Bathrooms	Offers	Brick	Neighborhood	newvariable
1	114300	1790	2	small	2	No	East	63.85475
12	123000	1870	2	small	2	Yes	East	65.77540
19	111400	1700	2	small	1	Yes	East	65.52941
29	69100	1600	2	small	3	No	North	43.18750
32	112300	1930	2	small	2	Yes	North	58.18653
35	117800	2000	2	small	3	No	North	58.90000
37	117500	1880	2	small	2	No	North	62.50000
41	106600	1560	2	small	1	No	East	68.33333
43	105600	1990	2	small	3	No	East	53.06533
47	129800	1990	2	large	2	No	North	65.22613
49	115900	1980	2	small	2	No	East	58.53535
52	91100	1860	2	small	3	No	North	48.97849
53	117400	2150	2	large	4	No	North	54.60465
56	125700	1720	2	small	2	Yes	East	73.08140
62	100900	1610	2	small	2	No	North	62.67081
64	120500	1910	2	large	2	No	East	63.08901

```
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'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[workspace loaded from ~/Latihan2/.RData]

> data_adrian = read.csv("C:/Users/Adrian/Prak Statistika/houseprices.csv")
> view(data_adrian)
> adrian <- data_adrian[data_adrian$Bedrooms==2,]
> view(adrian)
> adrian$Bathrooms <- ifelse(adrian$Bathrooms > 2, c("large"), c("small"))
> view(adrian)
> adrian$newvariable <- ifelse(adrian$Offers > 2, c("large"), c("small"))
> view(adrian)
> adrian$newvariable <- adrian$Price/adrian$SqFt
> view(adrian)
> |
```

5. Delete Variabel. Selain bisa menambah, kita juga bisa menghapus variable. Dalam percobaan ini kita akan menghapus variable yang baru saja kita buat.

```
nama$newvariable<-NULL
```

Output:



R Latihan2 - RStudio

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Go to file/function Addins

Filter

	Price	SqFt	Bedrooms	Bathrooms	Offers	Brick	Neighborhood
1	114300	1790	2	small	2	No	East
12	123000	1670	2	small	2	Yes	East
19	111400	1700	2	small	1	Yes	East
29	69100	1600	2	small	3	No	North
32	112300	1930	2	small	2	Yes	North
35	117800	2000	2	small	3	No	North
37	117500	1680	2	small	2	No	North
41	106600	1560	2	small	1	No	East
43	105600	1990	2	small	3	No	East
47	129800	1990	2	large	2	No	North
49	115900	1980	2	small	2	No	East
52	91100	1860	2	small	3	No	North
53	117400	2150	2	large	4	No	North
56	125700	1720	2	small	2	Yes	East
62	100900	1610	2	small	2	No	North
64	120500	1910	2	large	2	No	East

Showing 1 to 17 of 30 entries, 7 total columns

Console Terminal Background Jobs

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'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[workspace loaded from ~/Latihan2/.RData]

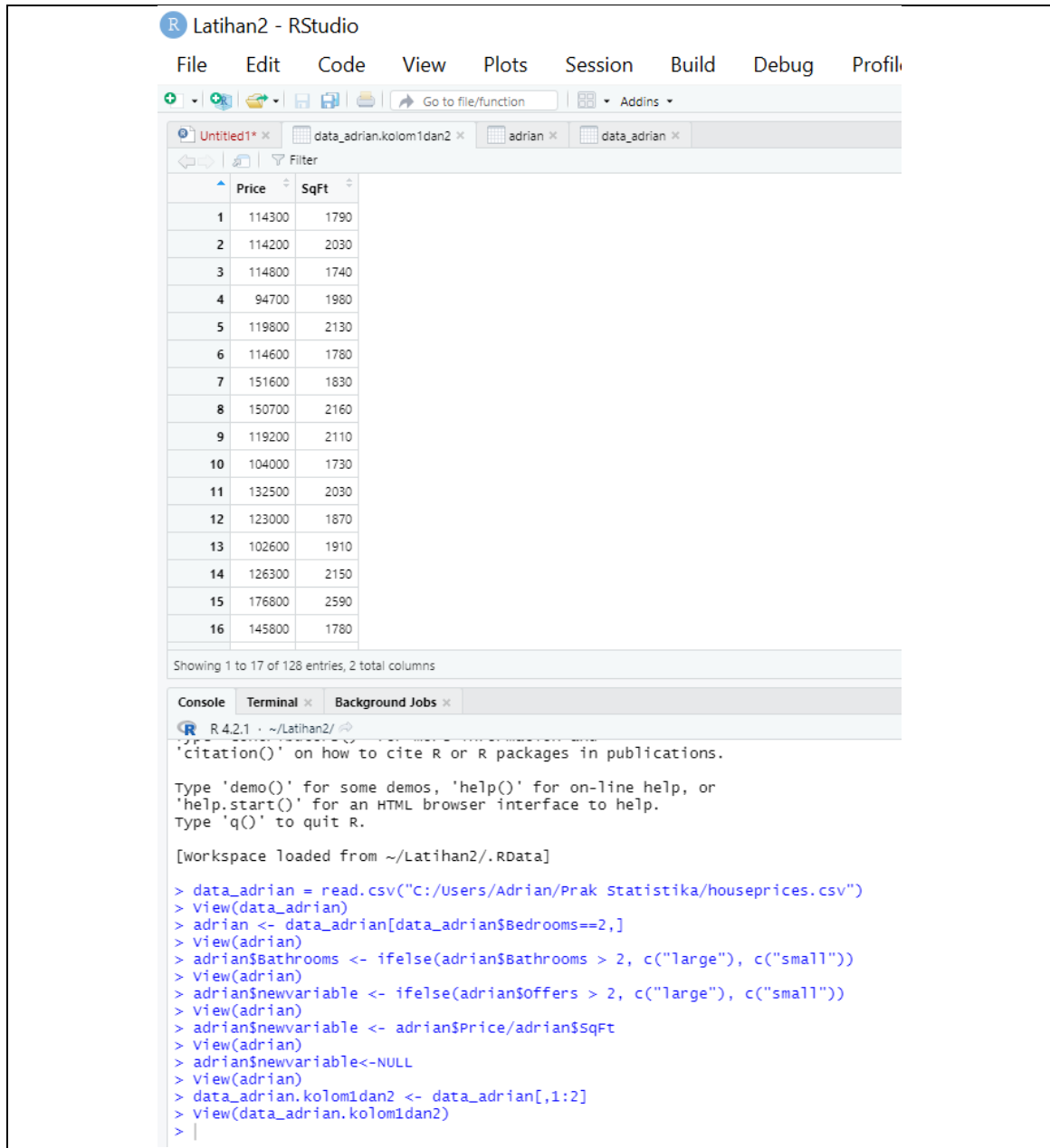
```
> data_adrian = read.csv("C:/Users/Adrian/Prak Statistika/houseprices.csv")
> view(data_adrian)
> adrian <- data_adrian[data_adrian$Bedrooms==2,]
> view(adrian)
> adrian$Bathrooms <- ifelse(adrian$Bathrooms > 2, c("large"), c("small"))
> view(adrian)
> adrian$newvariable <- ifelse(adrian$offers > 2, c("large"), c("small"))
> view(adrian)
> adrian$newvariable <- adrian$Price/adrian$SqFt
> view(adrian)
> adrian$newvariable<-NULL
> view(adrian)
> |
```

6. Merge Data Frame. Tahap 1 → Merge kolom Artinya memisahkan data sesuai kolom yang diinginkan lalu kemudian digabungkan.

```
data_nama.kolom1dan2 <- data_nama[,1:2]
View(data_nama.kolom1dan2)
```

Output:





The screenshot shows the RStudio interface with a data table and a console window. The data table has two columns: Price and SqFt. The console window shows the following R code:

```
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'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[workspace loaded from ~./Latihan2/.RData]

> data_adrian = read.csv("C:/Users/Adrian/Prak Statistika/houseprices.csv")
> view(data_adrian)
> adrian <- data_adrian[data_adrian$Bedrooms==2,]
> view(adrian)
> adrian$Bathrooms <- ifelse(adrian$Bathrooms > 2, c("large"), c("small"))
> view(adrian)
> adrian$newvariable <- ifelse(adrian$offers > 2, c("large"), c("small"))
> view(adrian)
> adrian$newvariable <- adrian$Price/adrian$SqFt
> view(adrian)
> adrian$newvariable<-NULL
> view(adrian)
> data_adrian.kolom1dan2 <- data_adrian[,1:2]
> view(data_adrian.kolom1dan2)
>
```

Tahap 2 → Merge kolom Artinya memisahkan data sesuai kolom yang diinginkan lalu kemudian digabungkan.

```
data_nama.kolom3dan4 <- data_nama[,3:4]
View(data_nama.kolom3dan4)
```

Output:



R Latihan2 - RStudio

File Edit Code View Plots Session Build Debug Profile T

Go to file/function Addins

Filter

	Bedrooms	Bathrooms
1	2	2
2	4	2
3	3	2
4	3	2
5	3	3
6	3	2
7	3	3
8	4	2
9	4	2
10	3	3
11	3	2
12	2	2
13	3	2
14	3	3
15	4	3
16	4	2

Showing 1 to 17 of 128 entries, 2 total columns

Console Terminal Background Jobs

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'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[workspace loaded from ~/Latihan2/.RData]

```
> data_adrian = read.csv("C:/Users/Adrian/Prak Statistika/houseprices.csv")
> view(data_adrian)
> adrian <- data_adrian[data_adrian$Bedrooms==2,]
> view(adrian)
> adrian$Bathrooms <- ifelse(adrian$Bathrooms > 2, c("large"), c("small"))
> view(adrian)
> adrian$newvariable <- ifelse(adrian$Offers > 2, c("large"), c("small"))
> view(adrian)
> adrian$newvariable <- adrian$Price/adrian$SqFt
> view(adrian)
> adrian$newvariable<-NULL
> view(adrian)
> data_adrian.kolom1dan2 <- data_adrian[,1:2]
> view(data_adrian.kolom1dan2)
> data_adrian.kolom3dan4 <- data_adrian[,3:4]
> view(data_adrian.kolom3dan4)
> |
```

Tahap 3 → Merge kolom Artinya memisahkan data sesuai kolom yang diinginkan lalu kemudian digabungkan.

```
data_nama.kolom1sd4<-cbind(data_nama.kolom1dan2, data_nama.kolom3dan4)
View(data_nama.kolom1sd4)
```

Output:



R Latihan2 - RStudio

File Edit Code View Plots Session Build Debug Profile

Go to file/function Addins

data_adrian.kolom1sd4 data_adrian.kolom3dan4 data_adrian.kolom1dan2 adrian

Filter

	Price	SqFt	Bedrooms	Bathrooms
1	114300	1790	2	2
2	114200	2030	4	2
3	114800	1740	3	2
4	94700	1980	3	2
5	119800	2130	3	3
6	114600	1780	3	2
7	151600	1830	3	3
8	150700	2160	4	2
9	119200	2110	4	2
10	104000	1730	3	3
11	132500	2030	3	2
12	123000	1870	2	2
13	102600	1910	3	2
14	126300	2150	3	3
15	176800	2590	4	3
16	145800	1780	4	2

Showing 1 to 17 of 128 entries, 4 total columns

Console Terminal Background Jobs

```
R 4.2.1 · ~/Latihan2/
Type 'q()' to quit R.

[workspace loaded from ~/Latihan2/.RData]

> data_adrian = read.csv("C:/Users/Adrian/Prak Statistika/houseprices.csv")
> view(data_adrian)
> adrian <- data_adrian[data_adrian$Bedrooms==2,]
> view(adrian)
> adrian$Bathrooms <- ifelse(adrian$Bathrooms > 2, c("large"), c("small"))
> view(adrian)
> adrian$newvariable <- ifelse(adrian$offers > 2, c("large"), c("small"))
> view(adrian)
> adrian$newvariable <- adrian$Price/adrian$SqFt
> view(adrian)
> adrian$newvariable<-NULL
> view(adrian)
> data_adrian.kolom1dan2 <- data_adrian[,1:2]
> view(data_adrian.kolom1dan2)
> data_adrian.kolom3dan4 <- data_adrian[,3:4]
> view(data_adrian.kolom3dan4)
> data_adrian.kolom1sd4<-cbind(data_adrian.kolom1dan2, data_adrian.kolom3dan4)
> view(data_adrian.kolom1sd4)
> |
```

7. Merge Baris artinya memisahkan data sesuai baris yang diinginkan dengan menggunakan range baris. Lalu kemudian digabungkan.

```
data_nama.baris1sd3 <- data_nama[1:3,]
data_nama.baris4sd6 <- data_nama[4:6,]
data_nama.baris1sd6 <- rbind(data_nama.baris1sd3, data_nama.baris4sd6)
View(data_nama.baris1sd6)
```

Output:



Latihan2 - RStudio

File Edit Code View Plots Session Build Debug Profile

Go to file/function

data_adrian.baris1sd6 data_adrian.kolom1sd4 data_adrian.kolom3dan4 data_adrian

	Price	SqFt	Bedrooms	Bathrooms	Offers	Brick	Neighborhood
1	114300	1790	2	2	2	No	East
2	114200	2030	4	2	3	No	East
3	114800	1740	3	2	1	No	East
4	94700	1980	3	2	3	No	East
5	119800	2130	3	3	3	No	East
6	114600	1780	3	2	2	No	North

Showing 1 to 6 of 6 entries, 7 total columns

Console Terminal Background Jobs

```
R 4.2.1 · ~/Latihan2/
> data_adrian = read.csv("C:/Users/Adrian/Prak Statistika/houseprices.csv")
> view(data_adrian)
> adrian <- data_adrian[data_adrian$Bedrooms==2,]
> view(adrian)
> adrian$Bathrooms <- ifelse(adrian$Bathrooms > 2, c("large"), c("small"))
> view(adrian)
> adrian$newvariable <- ifelse(adrian$Offers > 2, c("large"), c("small"))
> view(adrian)
> adrian$newvariable <- adrian$Price/adrian$SqFt
> view(adrian)
> adrian$newvariable<-NULL
> view(adrian)
> data_adrian.kolom1dan2 <- data_adrian[,1:2]
> view(data_adrian.kolom1dan2)
> data_adrian.kolom3dan4 <- data_adrian[,3:4]
> view(data_adrian.kolom3dan4)
> data_adrian.kolom1sd4<-cbind(data_adrian.kolom1dan2, data_adrian.kolom3dan4)
> view(data_adrian.kolom1sd4)
> data_adrian.baris1sd3 <- data_adrian[1:3,]
> data_adrian.baris4sd6 <- data_adrian[4:6,]
> data_adrian.baris1sd6 <- rbind(data_adrian.baris1sd3, data_adrian.baris4sd6)
> view(data_adrian.baris1sd6)
> |
```

8. Sort data frame. Apa yang terjadi dengan data setelah di sort?

Jawaban: ?

```
data_nama.sort<-data_nama[order(data_nama$Price),]
View(data_nama.sort)
```

Output:



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Latihan2 - RStudio

File Edit Code View Plots Session Build Debug Profile

Go to file/function Addins

Filter

	Price	SqFt	Bedrooms	Bathrooms	Offers	Brick	Neighborhood
29	69100	1600	2	2	3	No	North
55	81300	1650	3	2	3	No	North
105	82300	1910	3	2	4	No	East
18	83600	1990	3	3	4	No	North
48	90300	2050	3	2	6	No	North
85	90500	1520	2	2	3	No	North
52	91100	1860	2	2	3	No	North
23	91700	1690	3	2	3	No	North
69	93600	2140	3	2	4	No	North
4	94700	1980	3	2	3	No	East
90	97800	2010	2	2	4	No	North
28	99300	1700	3	2	2	No	East
62	100900	1610	2	2	2	No	North
116	102500	1900	3	3	3	No	North
13	102600	1910	3	2	4	No	North
87	102700	1900	4	2	4	No	North

Showing 1 to 17 of 128 entries, 7 total columns

Console Terminal Background Jobs

```
R 4.2.1 ~\Latihan2/
> adrian <- data_adrian[data_adrian$Bedrooms==2,]
> View(adrian)
> adrian$Bathrooms <- ifelse(adrian$Bathrooms > 2, c("large"), c("small"))
> View(adrian)
> adrian$Newvariable <- ifelse(adrian$Offers > 2, c("large"), c("small"))
> View(adrian)
> adrian$Newvariable <- adrian$Price/adrian$SqFt
> View(adrian)
> adrian$Newvariable<-NULL
> View(adrian)
> data_adrian.kolom1dan2 <- data_adrian[,1:2]
> View(data_adrian.kolom1dan2)
> data_adrian.kolom3dan4 <- data_adrian[,3:4]
> View(data_adrian.kolom3dan4)
> data_adrian.kolom1sd4<-cbind(data_adrian.kolom1dan2, data_adrian.kolom3dan4)
> View(data_adrian.kolom1sd4)
> data_adrian.baris1sd3 <- data_adrian[1:3,]
> data_adrian.baris4sd6 <- data_adrian[4:6,]
> data_adrian.baris1sd6 <- rbind(data_adrian.baris1sd3, data_adrian.baris4sd6)
> View(data_adrian.baris1sd6)
> data_adrian.sort<-data_adrian[order(data_adrian$Price),]
> View(data_adrian.sort)
>
```

b. Latihan Kedua – Tugas

Gunakan dataset pada tugas 1 yang telah ditambah lagi datanya dengan 10 mhs TIF/SI. Sehingga total baris data pada file tersebut berjumlah 30. Ulangi kembali perintah-perintah di atas dan sesuaikan dengan data anda. Dan lampirkan Screen Capture untuk tiap poin yang ada.

1. Read CSV

Taruh baris source code disini

Output:

Taruh baris screenshot output disini

2. Subset Data → Gunakan Kolom Tinggi Badan untuk bagian ini

Taruh baris source code disini



Output:

[Taruh baris screenshot output disini](#)

3. Mengubah nilai suatu variabel → Ubah isi kolom tinggi badan untuk tinggi > 160 menjadi “Tinggi” dan jika bukan berarti “Pendek”

[Taruh baris source code disini](#)

Output:

[Taruh baris screenshot output disini](#)

4. Menambah Variabel

- Buat variabel kolom baru dengan nama “Jurusan” dengan isi baris datanya adalah “Infor20”
- Buat variabel kolom baru kedua dengan nama “Fakultas” dengan isi baris datanya adalah “FTI”

[Taruh baris source code disini](#)

Output:

[Taruh baris screenshot output disini](#)

5. Delete Variabel → Hapus kolom Fakultas

[Taruh baris source code disini](#)

Output:

[Taruh baris screenshot output disini](#)

6. Merge Data Frame

- Gabung kolom Nama dan Gender
- Gabung kolom Angkatan dan Tinggi Badan
- Gabungkan 2 variabel kolom gabungan diatas

[Taruh baris source code disini](#)

Output:

[Taruh baris screenshot output disini](#)

7. Merge Baris

- Buat gabungan baris 1-5
- Buat gabungan baris 25-30
- Gabungkan 2 variabel diatas



Taruh baris source code disini

Output:

Taruh baris screenshot output disini

8. Sort Data Frame → Lakukan sort berdasarkan waktu perjalanan

Taruh baris source code disini

Output:

Taruh baris screenshot output disini

4. File Praktikum

Github Repository:

5. Soal Latihan

Soal:

1. Apa saja kegunaan pengelolaan data pada data frame?
2. Dalam kasus apakah data perlu dihapus?

Jawaban:

- 1.
- 2.

6. Kesimpulan

- a. Dalam pengerjaan praktikum Statistika, ...
- b. Kita juga dapat mengetahui...

7. Cek List (✓)

No	Elemen Kompetensi	Penyelesaian	
		Selesai	Tidak Selesai
1.	Latihan Pertama	Selesai	
2.	Latihan Kedua	...	

8. Formulir Umpan Balik



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No	Elemen Kompetensi	Waktu Pengerjaan	Kriteria
1.	Latihan Pertama	30 Menit	1
2.	Latihan Kedua	... Menit	...

Keterangan:

1. Menarik
2. Baik
3. Cukup
4. Kurang

