

Panduan Instalasi RStudio untuk *Workshop Data Science Indonesia JATIM CAMP ke 4*



RStudio merupakan sebuah IDE(*integrated development environment*) interaktif yang mudah digunakan untuk melakukan hal-hal yang berkaitan dengan komputasi statistik dan visualisasi data. RStudio dapat diunduh secara gratis dan dapat dijalankan pada sistem operasi Windows, Linux, dan Mac. Pada sesi *workshop* dengan R, kita nantinya akan menggunakan RStudio. Berikut ini adalah cara pemasangan RStudio pada sistem operasi Windows dan Linux(*debian based*) :

A. Sistem Operasi Windows :

1. Unduh instalasi R melalui situs resminya dengan menuju tautan berikut :

<https://cran.r-project.org/bin/windows/base/>

2. Klik tulisan **Download R 3.5.3 for Windows**(pojok kiri atas)

R-3.5.3 for Windows (32/64 bit)

[Download R 3.5.3 for Windows](#) (79 megabytes, 32/64 bit)

[Installation and other instructions](#)

[New features in this version](#)

If you want to double-check that the package you have downloaded matches the package distributed by CRAN, you can compare the [md5sum](#) of the .exe to the [fingerprint](#) on the master server. You will need a version of md5sum for windows: both [graphical](#) and [command line versions](#) are available.

Frequently asked questions

- [Does R run under my version of Windows?](#)
- [How do I update packages in my previous version of R?](#)
- [Should I run 32-bit or 64-bit R?](#)

Please see the [R FAQ](#) for general information about R and the [R Windows FAQ](#) for Windows-specific information.

Other builds

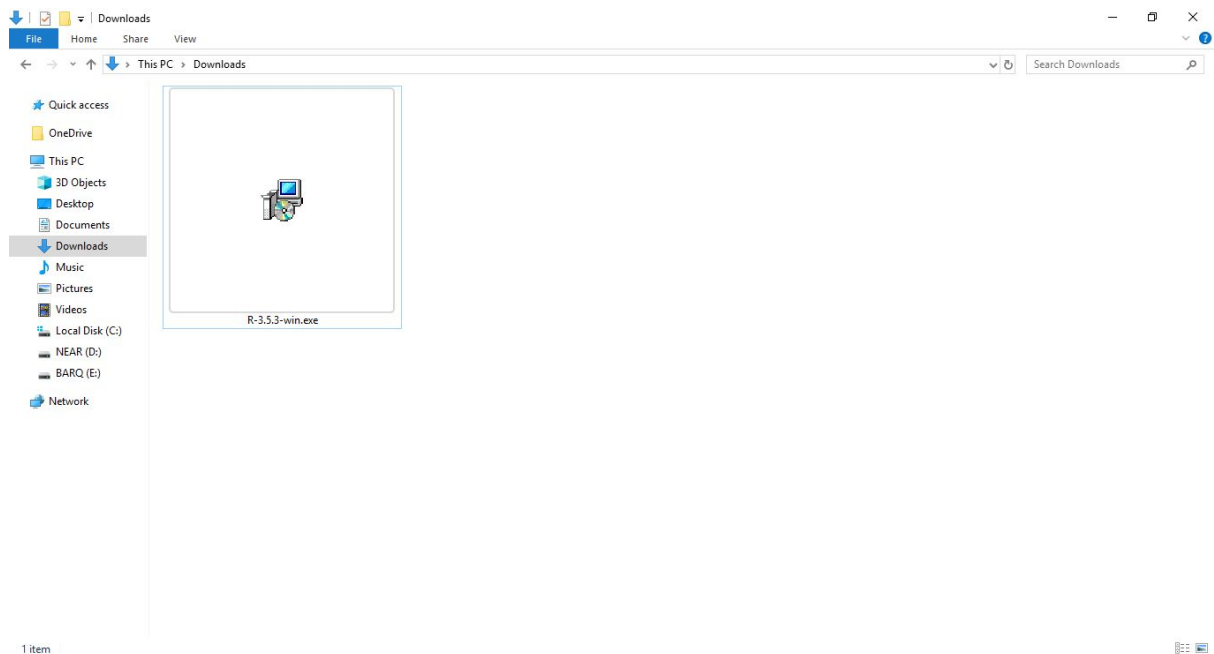
- Patches to this release are incorporated in the [r-patched snapshot build](#).
- A build of the development version (which will eventually become the next major release of R) is available in the [r-devel snapshot build](#).
- [Previous releases](#)

Note to webmasters: A stable link which will redirect to the current Windows binary release is <https://CRAN.MIRROR>/bin/windows/base/release.htm>.

Last change: 2019-03-11

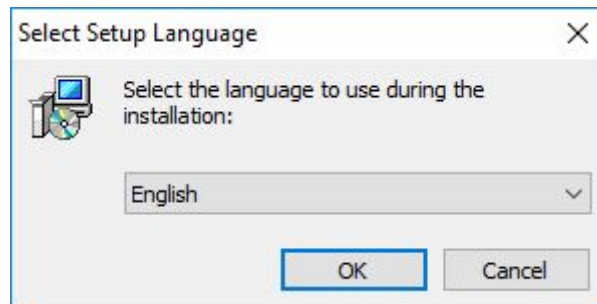
Tunggu unduhannya sampai selesai

3. Apabila berkas unduhannya sudah terunduh



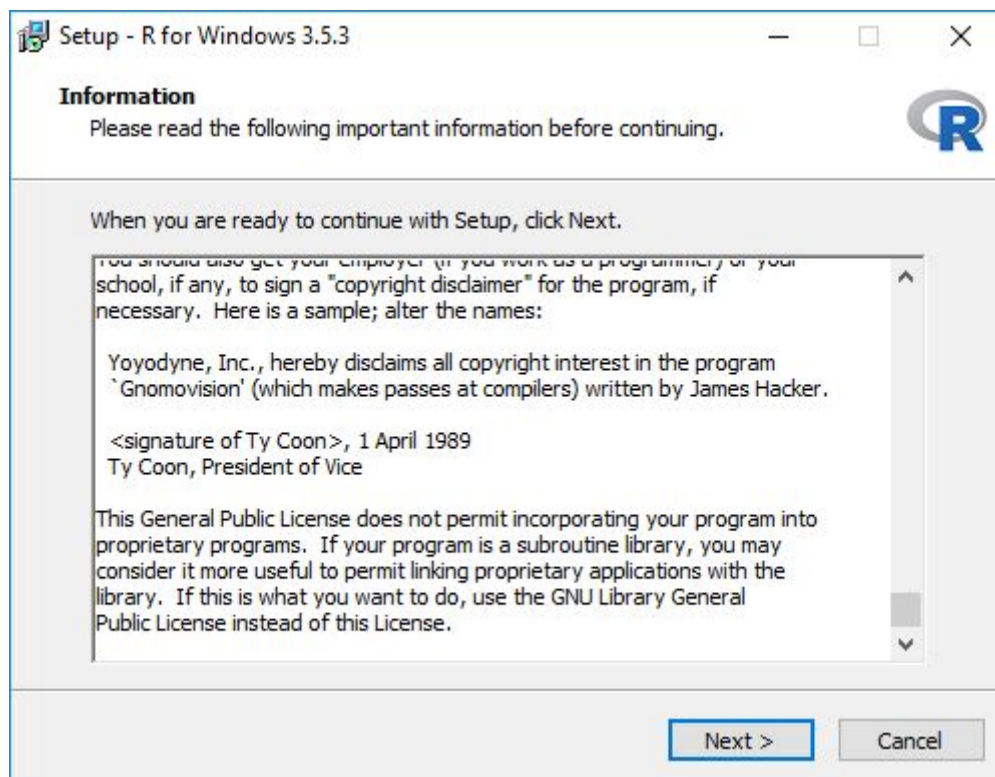
Jalankan saja berkas nya seperti biasa

4. Pilih bahasa



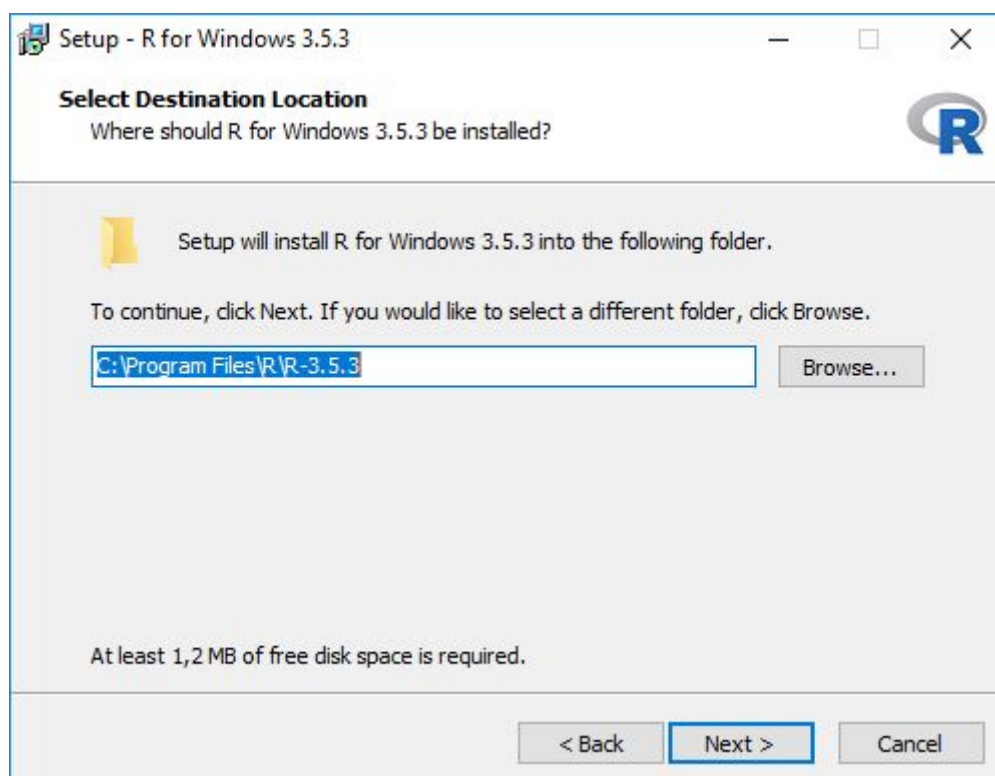
Tidak ada Bahasa Indonesia oleh karena itu klik **OK** untuk memulai instalasi R

5. Baca seluruh *user license agreement*



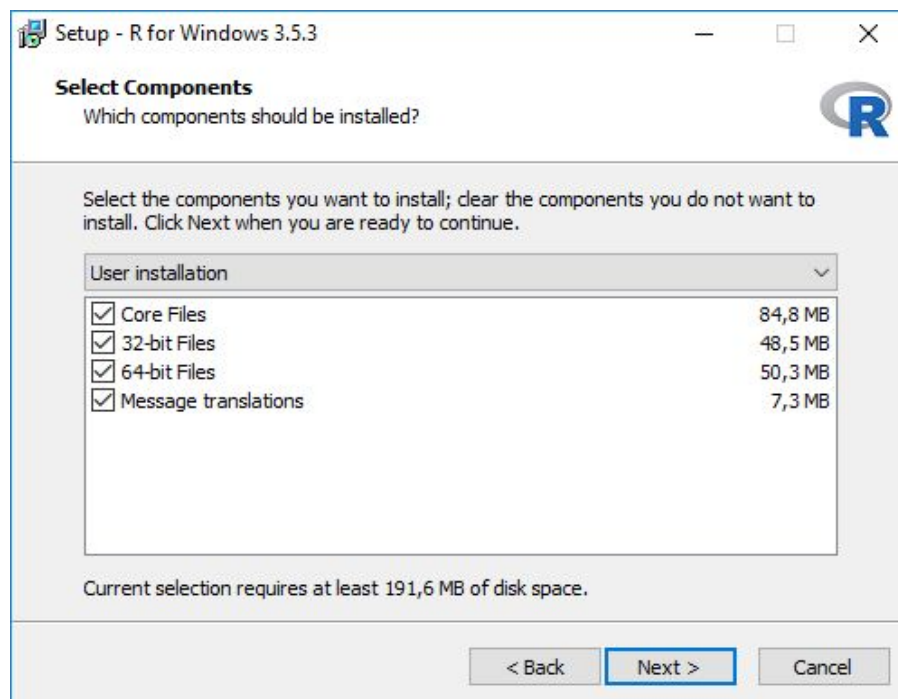
Klik **Next >** untuk melanjutkan proses Instalasi

6. Pilih direktori untuk menyimpan *files* hasil instalasi



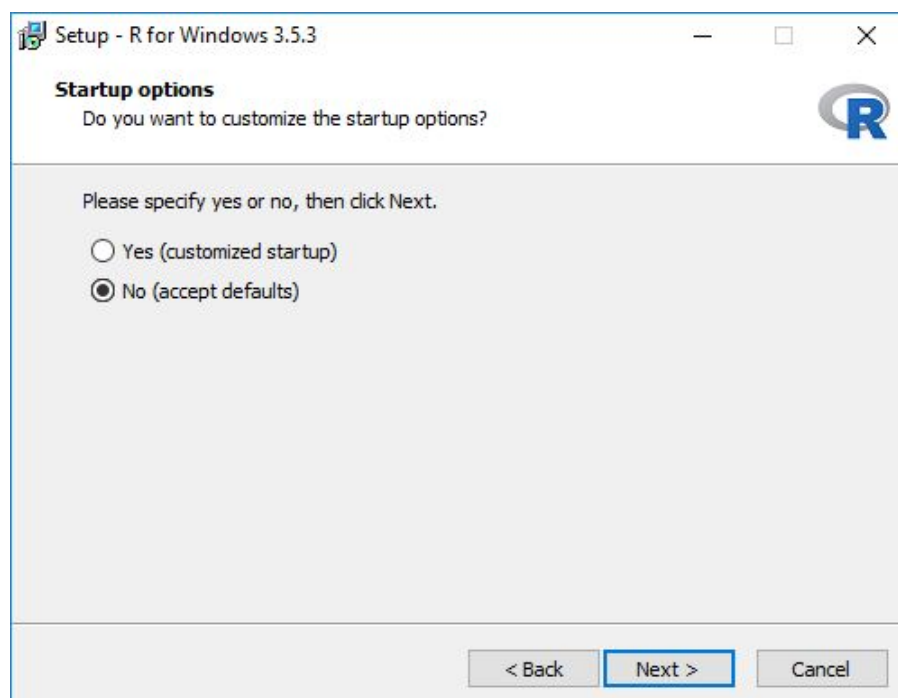
Klik **Next >** untuk melanjutkan proses Instalasi

7. Pilih komponen yang hendak diinstal



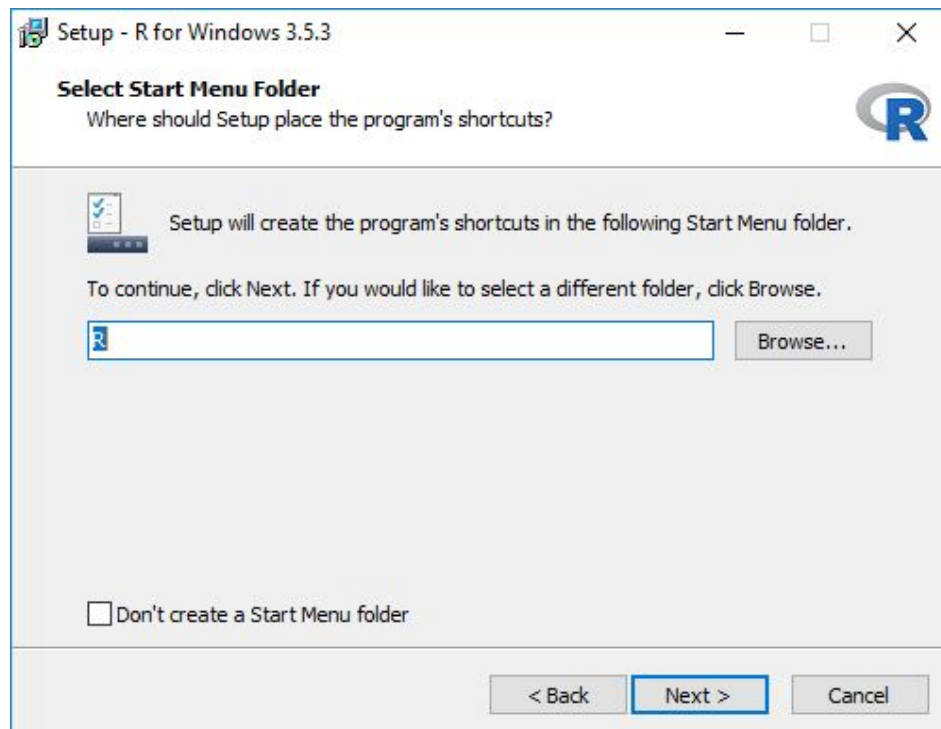
Apabila laptop Anda berarsitektur 32-bit hapus saja centang pada kotak 64-bit. Berlaku juga sebaliknya, apabila laptop Anda berarsitektur 32-bit hapus saja centang pada kotak 64-bit. Tidaklah bermasalah jika anda tidak menghapus salah satu centang di antara 4 kotak yang ada. Klik **Next >** untuk melanjutkan proses Instalasi

8. Pilih No



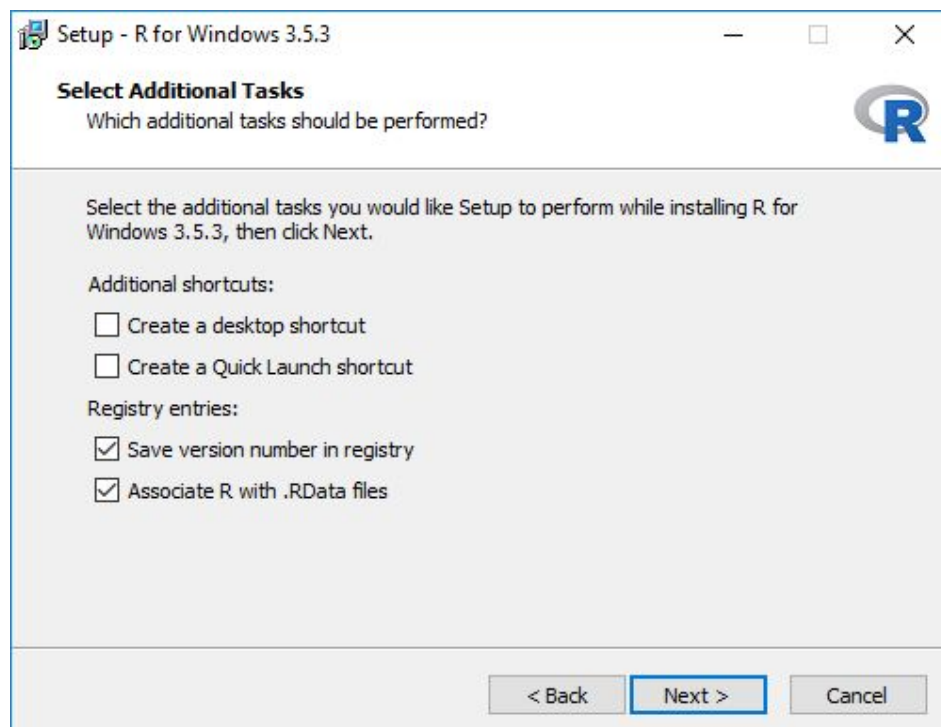
Klik **Next >** untuk melanjutkan proses Instalasi

9. Pilih start menu folder



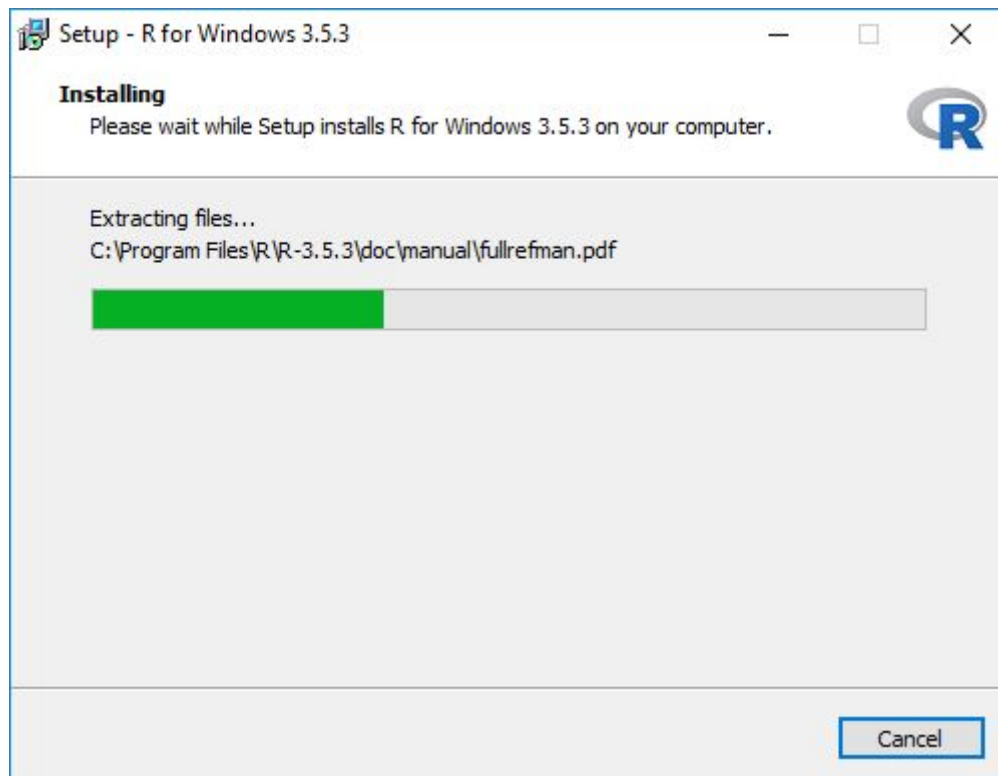
Klik **Next >** untuk melanjutkan proses Instalasi

10. Centang salah satu/kedua kotak pada **Additional shortcuts** atau tidak sama sekali



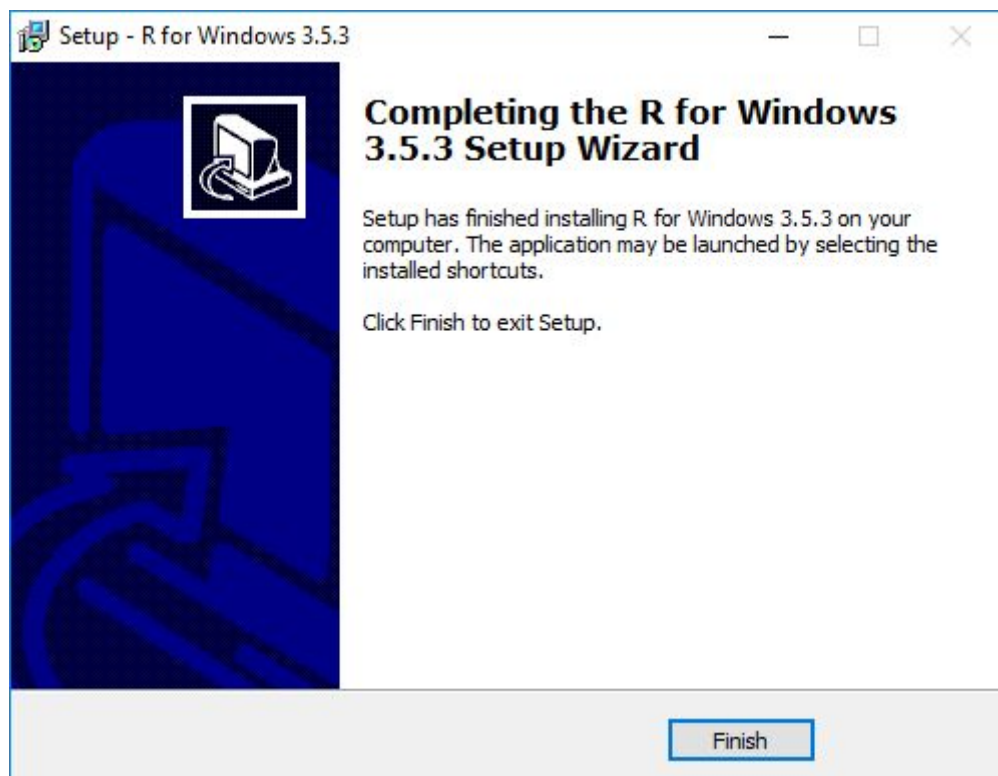
Klik **Next >** untuk melanjutkan proses Instalasi

11. Proses instalasi dimulai



Tidak akan memakan waktu lama

12. Proses instalasi R selesai

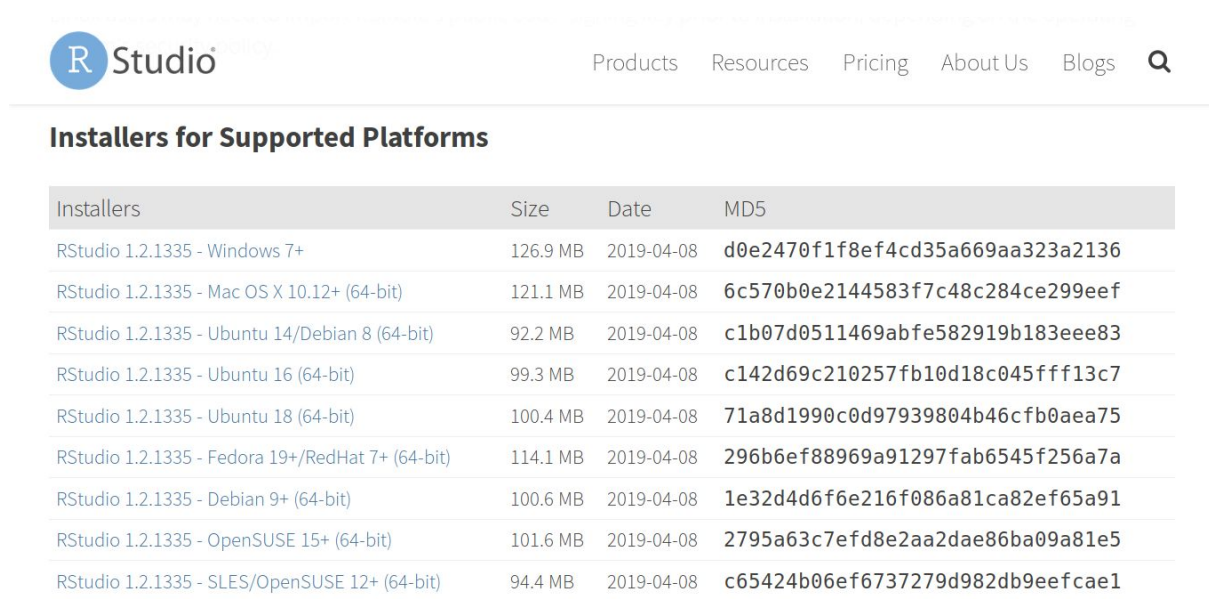


Klik **Finish** untuk menyudahi instalasi R dan lanjutkan ke langkah berikutnya

13. Unduh RStudio melalui situs resminya dengan mengunjungi tautan berikut :

<https://www.rstudio.com/products/rstudio/download/>

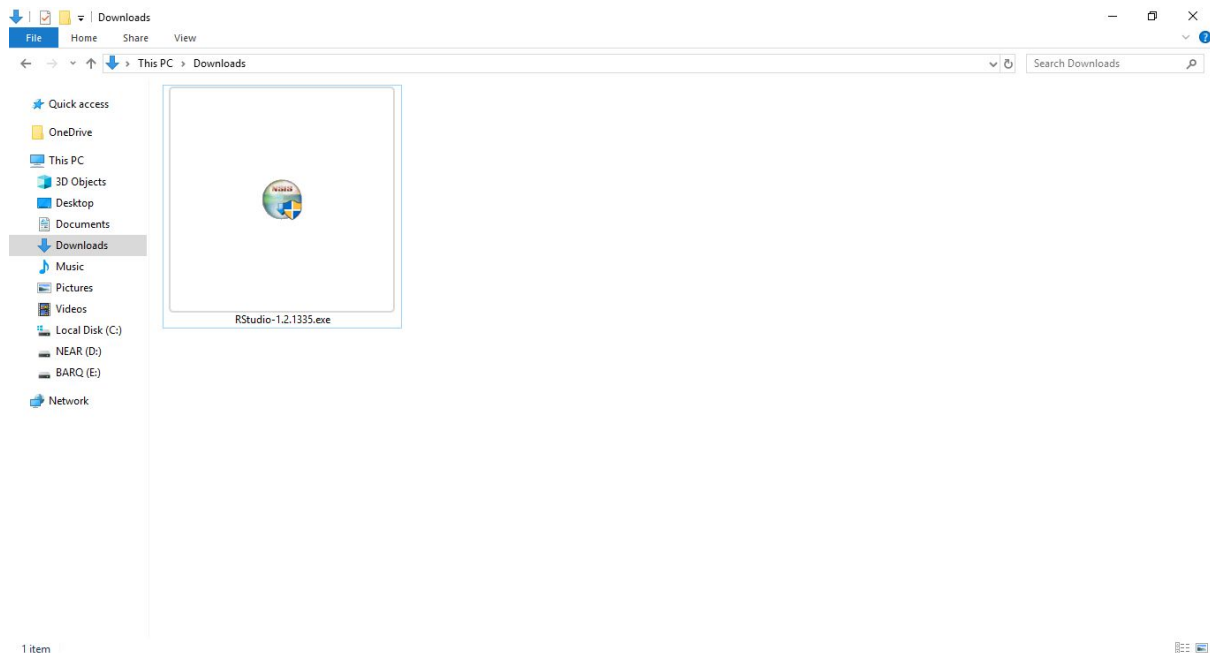
14. Klik **RStudio 1.2.1335 - Windows 7+** untuk mengunduh RStudio



Installers	Size	Date	MD5
RStudio 1.2.1335 - Windows 7+	126.9 MB	2019-04-08	d0e2470f1f8ef4cd35a669aa323a2136
RStudio 1.2.1335 - Mac OS X 10.12+ (64-bit)	121.1 MB	2019-04-08	6c570b0e2144583f7c48c284ce299eef
RStudio 1.2.1335 - Ubuntu 14/Debian 8 (64-bit)	92.2 MB	2019-04-08	c1b07d0511469abfe582919b183eee83
RStudio 1.2.1335 - Ubuntu 16 (64-bit)	99.3 MB	2019-04-08	c142d69c210257fb10d18c045fff13c7
RStudio 1.2.1335 - Ubuntu 18 (64-bit)	100.4 MB	2019-04-08	71a8d1990c0d97939804b46cfb0aea75
RStudio 1.2.1335 - Fedora 19+/RedHat 7+ (64-bit)	114.1 MB	2019-04-08	296b6ef88969a91297fab6545f256a7a
RStudio 1.2.1335 - Debian 9+ (64-bit)	100.6 MB	2019-04-08	1e32d4d6f6e216f086a81ca82ef65a91
RStudio 1.2.1335 - OpenSUSE 15+ (64-bit)	101.6 MB	2019-04-08	2795a63c7efd8e2aa2dae86ba09a81e5
RStudio 1.2.1335 - SLES/OpenSUSE 12+ (64-bit)	94.4 MB	2019-04-08	c65424b06ef6737279d982db9eefcae1

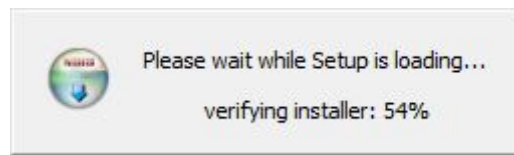
Tunggu unduhan selesai

15. Apabila berkas unduhan sudah selesai diunduh

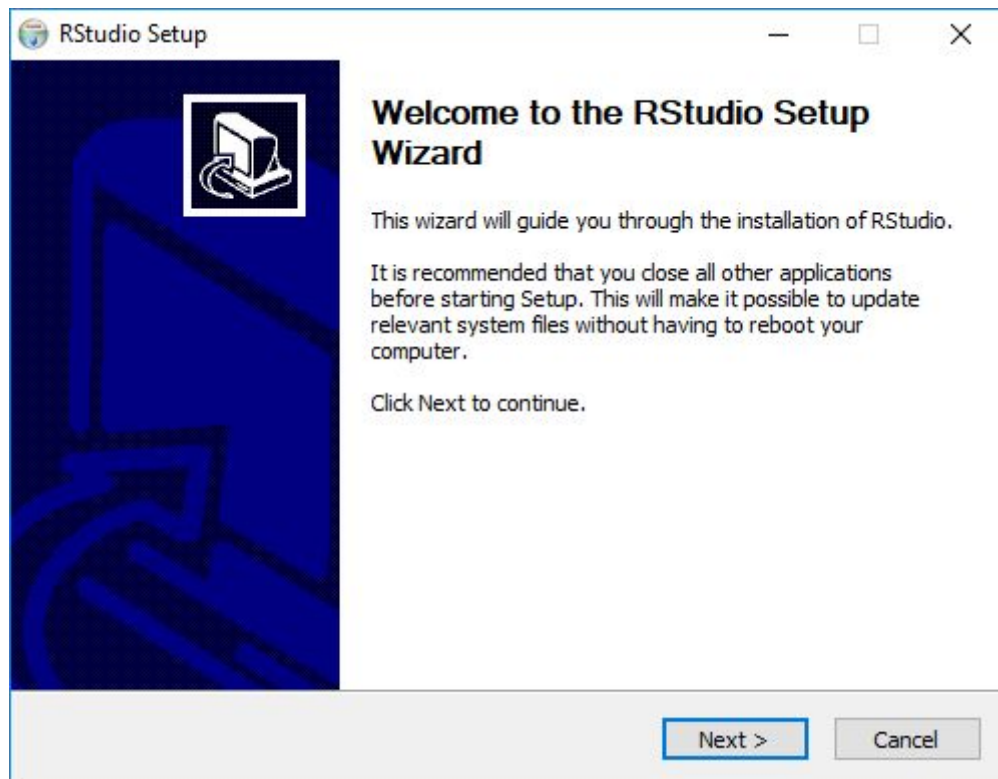


Jalankan *installer*-nya seperti biasa

16. Tunggu sampai 100%

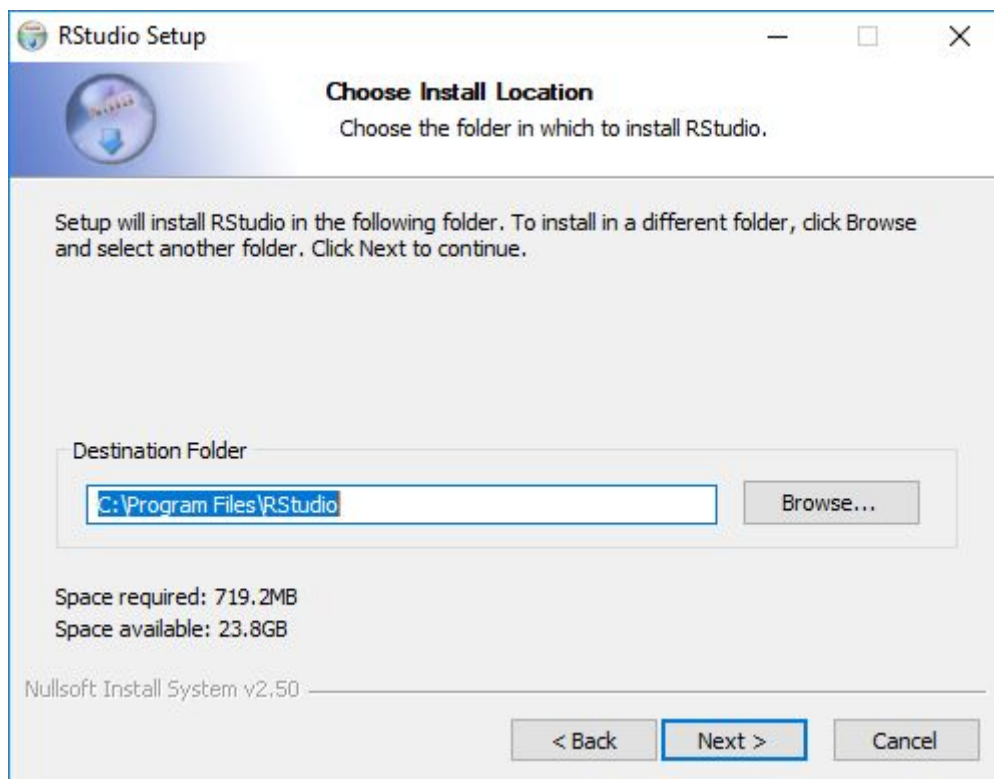


17. Mulai instalasi RStudio



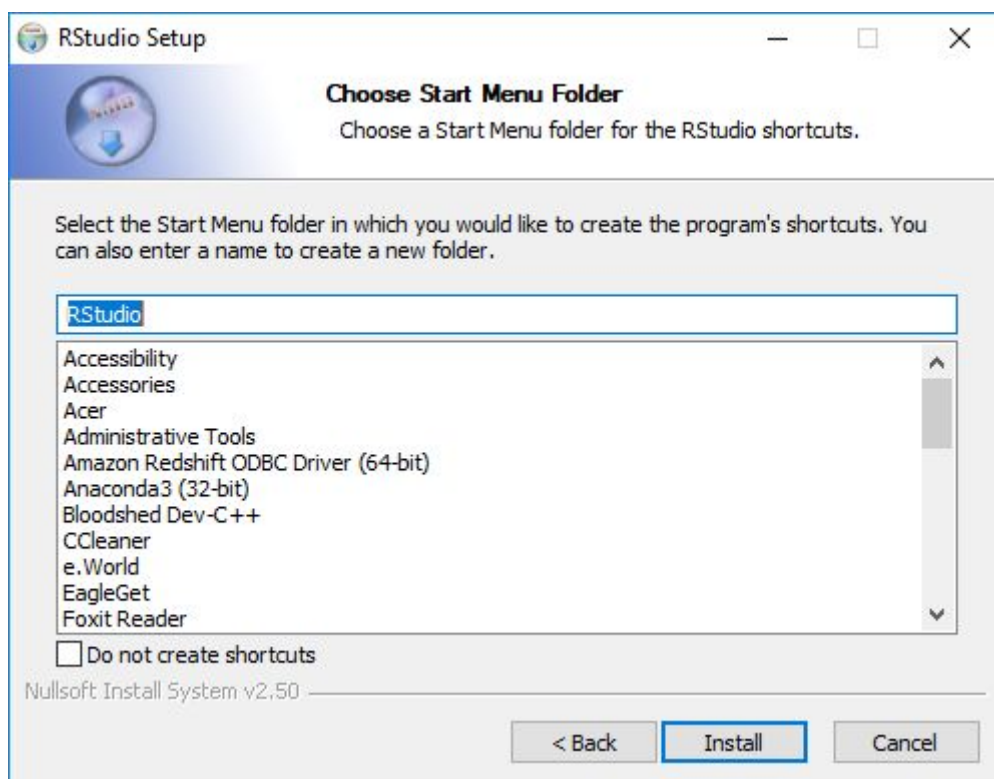
Klik **Next >** untuk memulai instalasi RStudio

18. Pilih direktori untuk menyimpan hasil instalasi RStudio



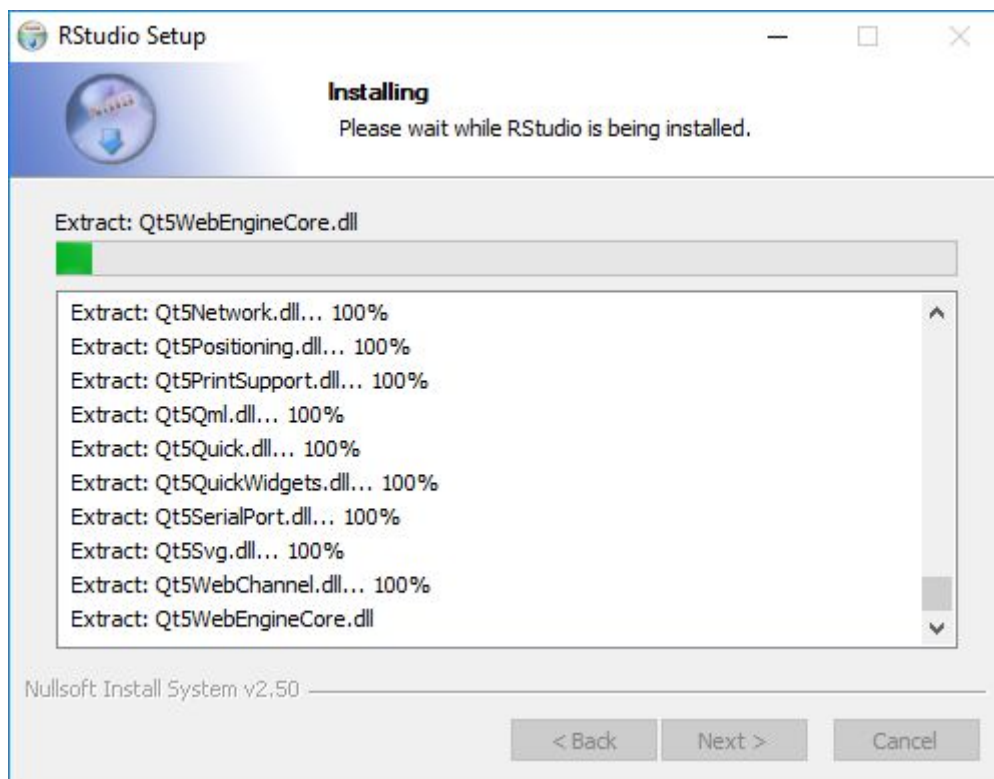
Klik **Next >** untuk melanjutkan proses instalasi RStudio

19. Pilih *Start Menu Folder*



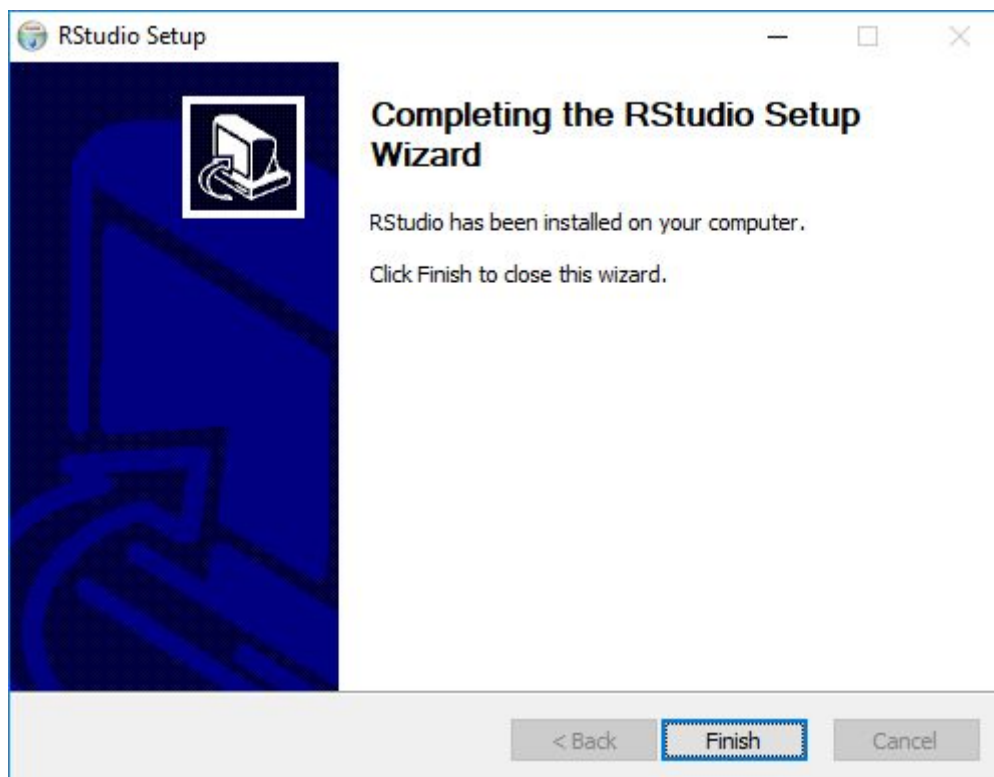
Klik **Install** untuk memulai instalasi RStudio

20. Tunggu proses instalasi sampai selesai



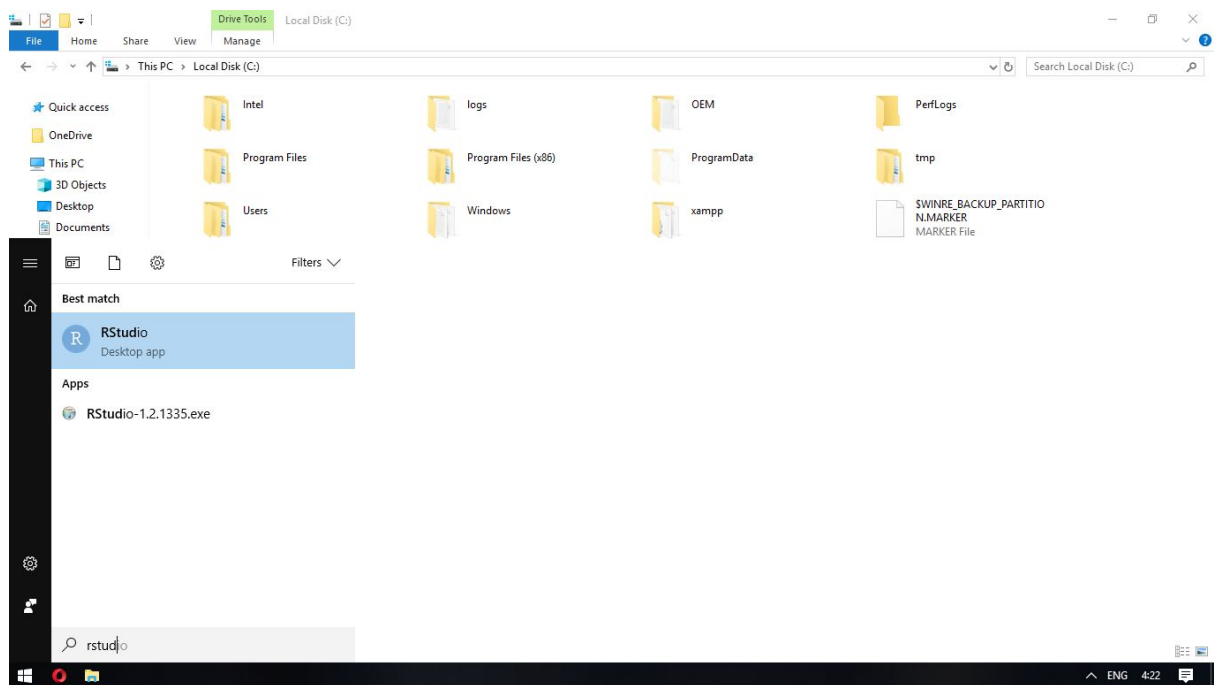
Tidak akan berlangsung lama

21. Proses instalasi selesai

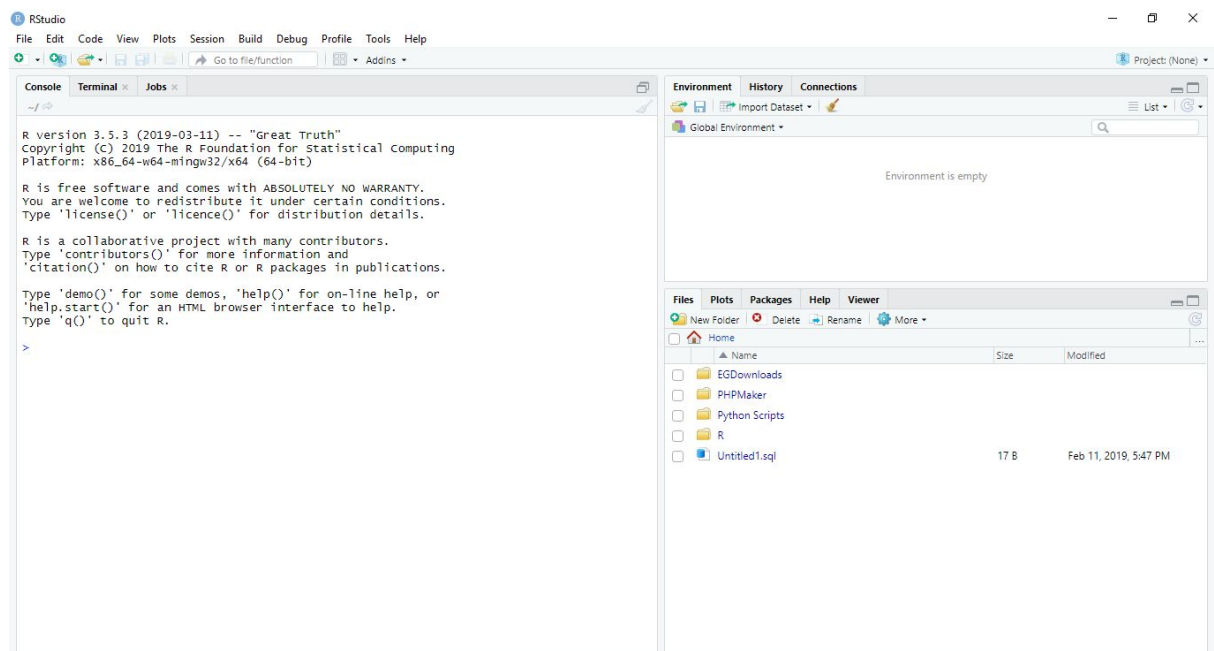


Klik **Finish** untuk menyelesaikan proses instalasi

22. Cari *shortcut* RStudio melalui menu *start*



23. Tampilan utama RStudio



Apabila tampilan tersebut sudah muncul maka Anda siap untuk mengikuti *workshop* JATIM CAMP ke 4, selamat! :)

Agar program RStudio berjalan tanpa ada masalah maka laptop kita harus sudah terpasang program R oleh karena itu langkah nomor satu sampai dua belas sangatlah diperlukan.

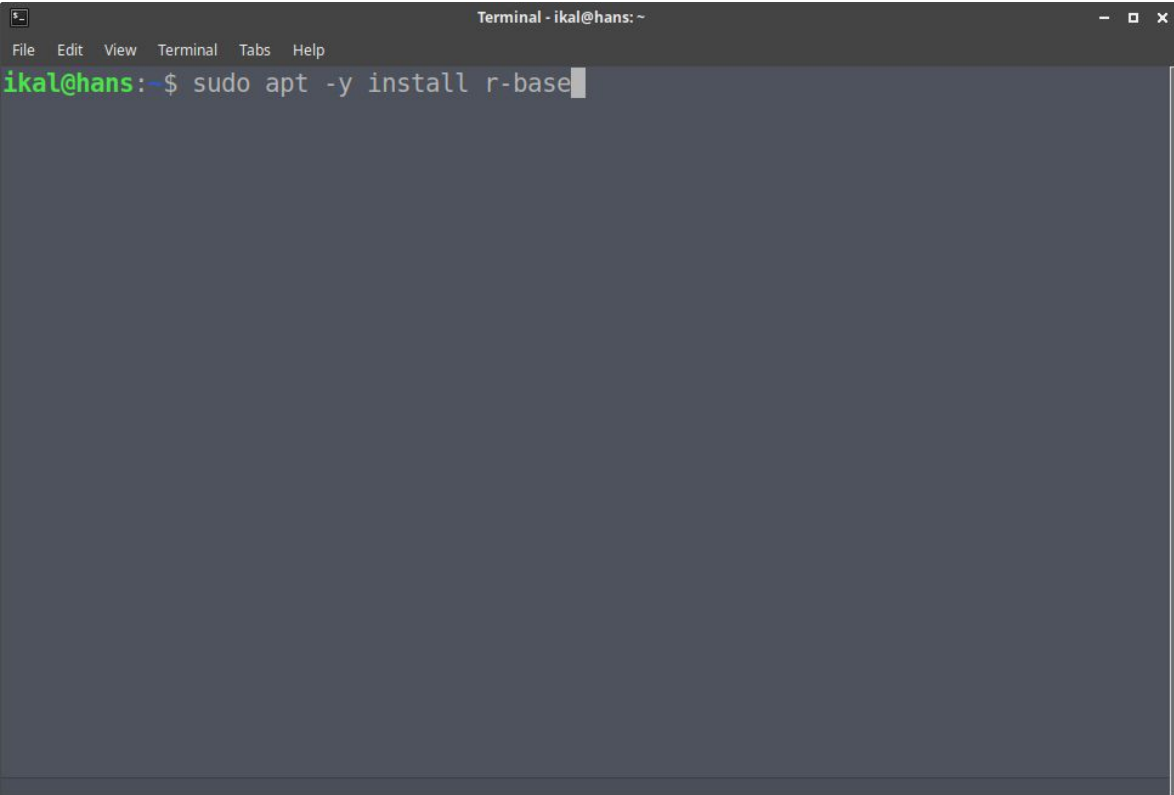
B. Sistem Operasi Linux(*debian based*) :

Perlu diketahui sebelumnya bahwa RStudio dapat diinstall pada beberapa distro Linux, antara lain :

1. Debian
2. Ubuntu
3. Fedora
4. OpenSUSE.

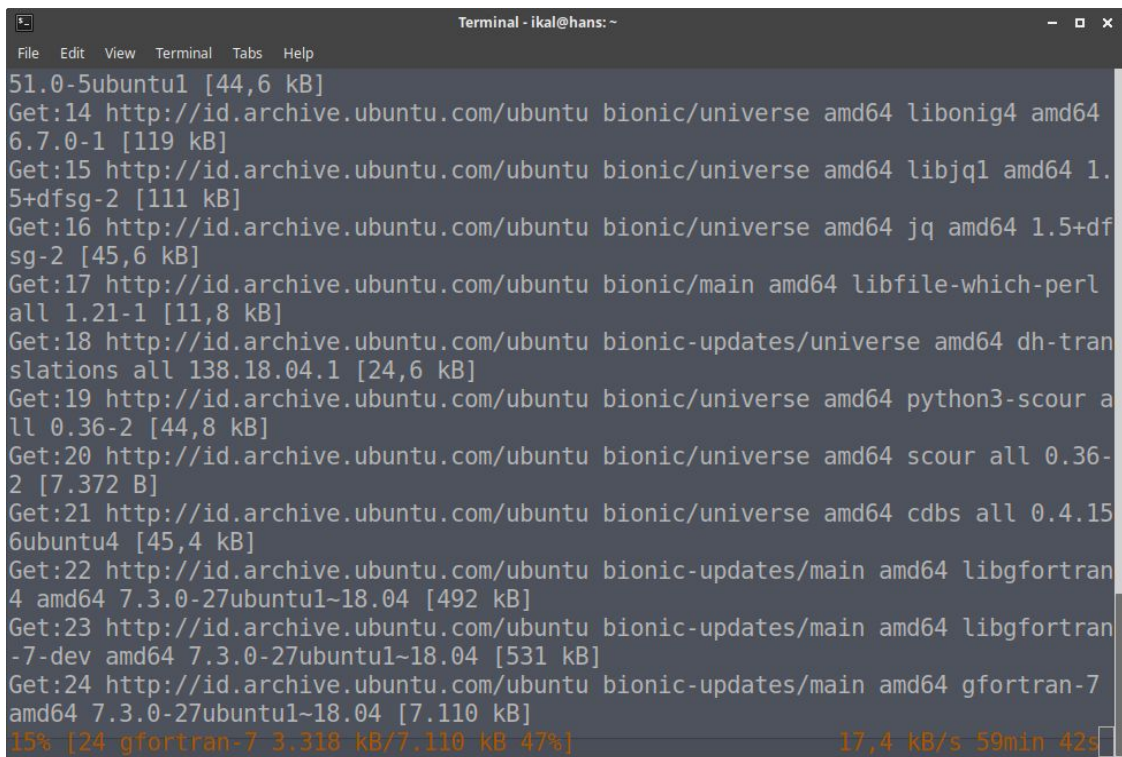
Namun bukan berarti RStudio tidak dapat terinstal di selain distro yang tersebut di atas. RStudio tetap dapat terinstal pada distro turunan keempat distro di atas. Kita ambil contoh Linux Mint, Linux Mint tidak ada pada keempat distro di atas namun ia adalah distro turunan dari Debian dan Ubuntu sehingga RStudio pasti dapat terinstal pada Linux Mint. Pada panduan ini kami menggunakan sistem operasi Xubuntu 18.04.2 yang merupakan turunan dari Ubuntu dan Ubuntu merupakan turunan dari Debian. Untuk mengetahui segala distro linux beserta turunan/basisnya silahkan kunjungi [DistroWatch](#). Cukup sekian saja penjelasan singkat dari kami, mari mulai menginstal RStudio pada sistem operasi Linux berbasis Debian.

1. Buka terminal dengan mengetik **Ctrl + Alt + t**

A screenshot of a terminal window titled "Terminal - ikal@hans: ~". The window has a menu bar with "File", "Edit", "View", "Terminal", "Tabs", and "Help". The terminal prompt is "ikal@hans:~\$" and the command "sudo apt -y install r-base" is being typed, with a cursor at the end of the line.

Ketikkan perintah **sudo apt -y install r-base** untuk menginstal bahasa pemrograman R pada sistem operasi Anda. Pastikan laptop Anda terhubung dengan Internet

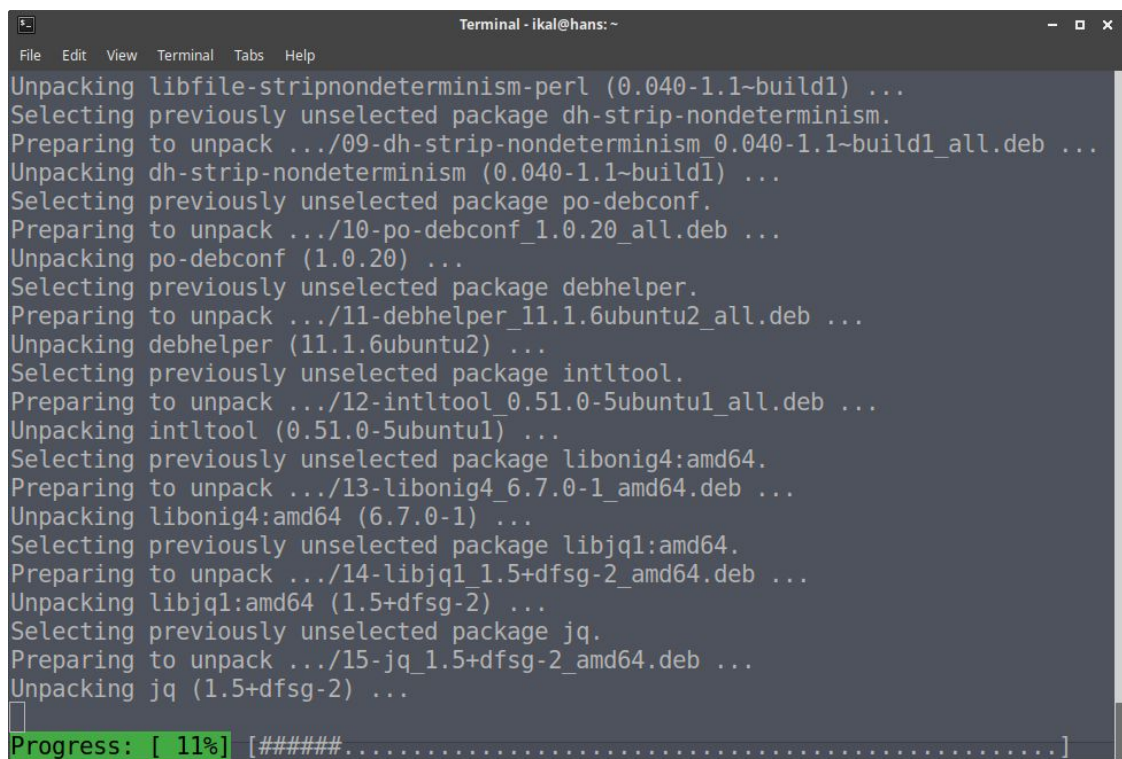
2. Tunggu proses pengunduhan sampai selesai



```
Terminal - ikal@hans: ~
File Edit View Terminal Tabs Help
51.0-5ubuntu1 [44,6 kB]
Get:14 http://id.archive.ubuntu.com/ubuntu bionic/universe amd64 libonig4 amd64
6.7.0-1 [119 kB]
Get:15 http://id.archive.ubuntu.com/ubuntu bionic/universe amd64 libjq1 amd64 1.
5+dfsg-2 [111 kB]
Get:16 http://id.archive.ubuntu.com/ubuntu bionic/universe amd64 jq amd64 1.5+df
sg-2 [45,6 kB]
Get:17 http://id.archive.ubuntu.com/ubuntu bionic/main amd64 libfile-which-perl
all 1.21-1 [11,8 kB]
Get:18 http://id.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 dh-tran
slations all 138.18.04.1 [24,6 kB]
Get:19 http://id.archive.ubuntu.com/ubuntu bionic/universe amd64 python3-scour a
ll 0.36-2 [44,8 kB]
Get:20 http://id.archive.ubuntu.com/ubuntu bionic/universe amd64 scour all 0.36-
2 [7.372 B]
Get:21 http://id.archive.ubuntu.com/ubuntu bionic/universe amd64 cdb5 all 0.4.15
6ubuntu4 [45,4 kB]
Get:22 http://id.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libgfortran
4 amd64 7.3.0-27ubuntu1~18.04 [492 kB]
Get:23 http://id.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libgfortran
-7-dev amd64 7.3.0-27ubuntu1~18.04 [531 kB]
Get:24 http://id.archive.ubuntu.com/ubuntu bionic-updates/main amd64 gfortran-7
amd64 7.3.0-27ubuntu1~18.04 [7.110 kB]
15% [24 gfortran-7 3.318 kB/7.110 kB 47%] 17,4 kB/s 59min 42s
```

Lama atau tidaknya bergantung dengan koneksi internet Anda

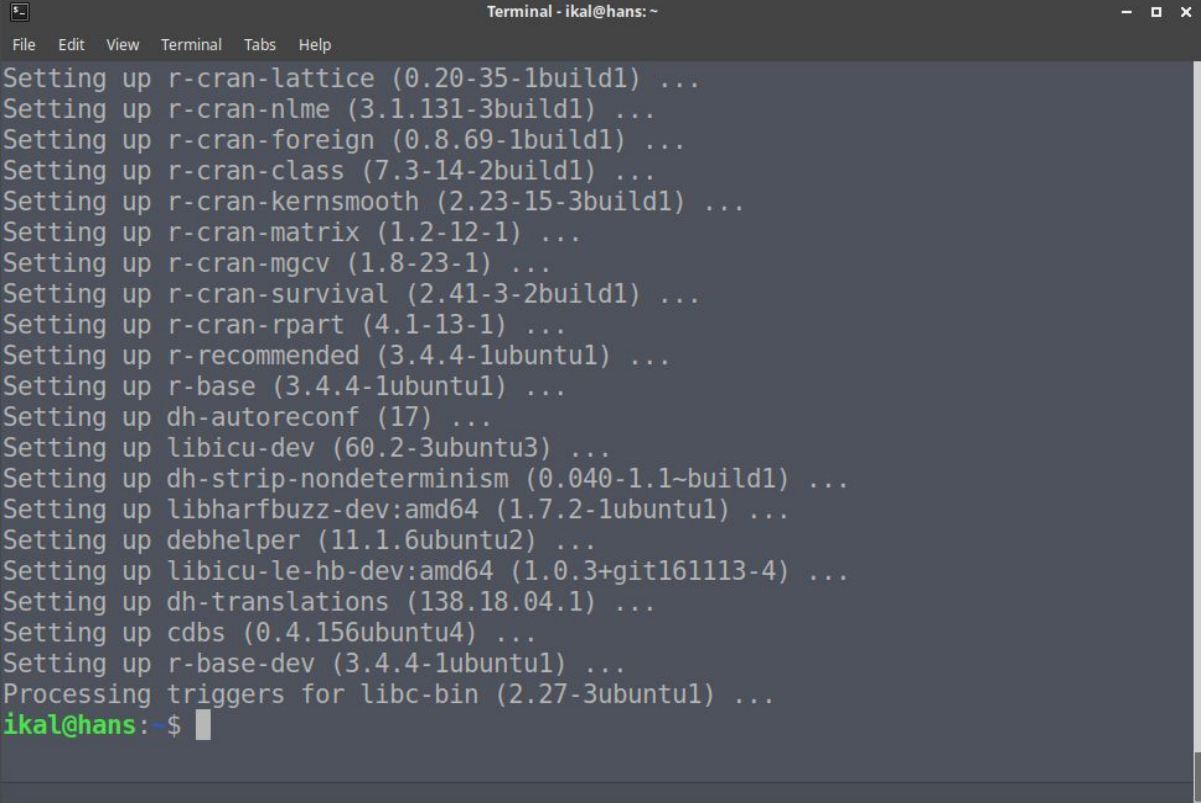
3. Apabila proses pengunduhan selesai Terminal secara otomatis menginstal bahasa pemrograman R pada sistem operasi Anda



```
Terminal - ikal@hans: ~
File Edit View Terminal Tabs Help
Unpacking libfile-stripnondeterminism-perl (0.040-1.1~build1) ...
Selecting previously unselected package dh-strip-nondeterminism.
Preparing to unpack .../09-dh-strip-nondeterminism_0.040-1.1~build1_all.deb ...
Unpacking dh-strip-nondeterminism (0.040-1.1~build1) ...
Selecting previously unselected package po-debconf.
Preparing to unpack .../10-po-debconf_1.0.20_all.deb ...
Unpacking po-debconf (1.0.20) ...
Selecting previously unselected package debhelper.
Preparing to unpack .../11-debhelper_11.1.6ubuntu2_all.deb ...
Unpacking debhelper (11.1.6ubuntu2) ...
Selecting previously unselected package intltool.
Preparing to unpack .../12-intltool_0.51.0-5ubuntu1_all.deb ...
Unpacking intltool (0.51.0-5ubuntu1) ...
Selecting previously unselected package libonig4:amd64.
Preparing to unpack .../13-libonig4_6.7.0-1_amd64.deb ...
Unpacking libonig4:amd64 (6.7.0-1) ...
Selecting previously unselected package libjq1:amd64.
Preparing to unpack .../14-libjq1_1.5+dfsg-2_amd64.deb ...
Unpacking libjq1:amd64 (1.5+dfsg-2) ...
Selecting previously unselected package jq.
Preparing to unpack .../15-jq_1.5+dfsg-2_amd64.deb ...
Unpacking jq (1.5+dfsg-2) ...
Progress: [ 11%] [#####.....]
```

Tidak akan memakan waktu lama

4. Proses instalasi bahasa pemrograman R telah selesai

A terminal window titled "Terminal - ikal@hans: ~" with a menu bar (File, Edit, View, Terminal, Tabs, Help). The terminal displays a list of installed R packages and their versions, each followed by "...". The packages include r-cran-lattice (0.20-35-1build1), r-cran-nlme (3.1.131-3build1), r-cran-foreign (0.8.69-1build1), r-cran-class (7.3-14-2build1), r-cran-kernsmooth (2.23-15-3build1), r-cran-matrix (1.2-12-1), r-cran-mgcv (1.8-23-1), r-cran-survival (2.41-3-2build1), r-cran-rpart (4.1-13-1), r-recommended (3.4.4-1ubuntu1), r-base (3.4.4-1ubuntu1), dh-autoreconf (17), libc-dev (60.2-3ubuntu3), dh-strip-nondeterminism (0.040-1.1-build1), libharfbuzz-dev:amd64 (1.7.2-1ubuntu1), debhelper (11.1.6ubuntu2), libc-le-hb-dev:amd64 (1.0.3+git161113-4), dh-translations (138.18.04.1), cdb (0.4.156ubuntu4), and r-base-dev (3.4.4-1ubuntu1). The last line shows "Processing triggers for libc-bin (2.27-3ubuntu1) ..." followed by the prompt "ikal@hans:~\$".


```
Setting up r-cran-lattice (0.20-35-1build1) ...
Setting up r-cran-nlme (3.1.131-3build1) ...
Setting up r-cran-foreign (0.8.69-1build1) ...
Setting up r-cran-class (7.3-14-2build1) ...
Setting up r-cran-kernsmooth (2.23-15-3build1) ...
Setting up r-cran-matrix (1.2-12-1) ...
Setting up r-cran-mgcv (1.8-23-1) ...
Setting up r-cran-survival (2.41-3-2build1) ...
Setting up r-cran-rpart (4.1-13-1) ...
Setting up r-recommended (3.4.4-1ubuntu1) ...
Setting up r-base (3.4.4-1ubuntu1) ...
Setting up dh-autoreconf (17) ...
Setting up libc-dev (60.2-3ubuntu3) ...
Setting up dh-strip-nondeterminism (0.040-1.1-build1) ...
Setting up libharfbuzz-dev:amd64 (1.7.2-1ubuntu1) ...
Setting up debhelper (11.1.6ubuntu2) ...
Setting up libc-le-hb-dev:amd64 (1.0.3+git161113-4) ...
Setting up dh-translations (138.18.04.1) ...
Setting up cdb (0.4.156ubuntu4) ...
Setting up r-base-dev (3.4.4-1ubuntu1) ...
Processing triggers for libc-bin (2.27-3ubuntu1) ...
ikal@hans:~$
```

Anda bisa menutup Terminal ini atau membiarkannya

5. Kemudian unduh RStudio melalui situs resminya dengan mengunjungi tautan berikut :

<https://www.rstudio.com/products/rstudio/download/>

6. Pilih distro Linux berbasis Debian(Ubuntu & Debian) yang Anda gunakan saat ini



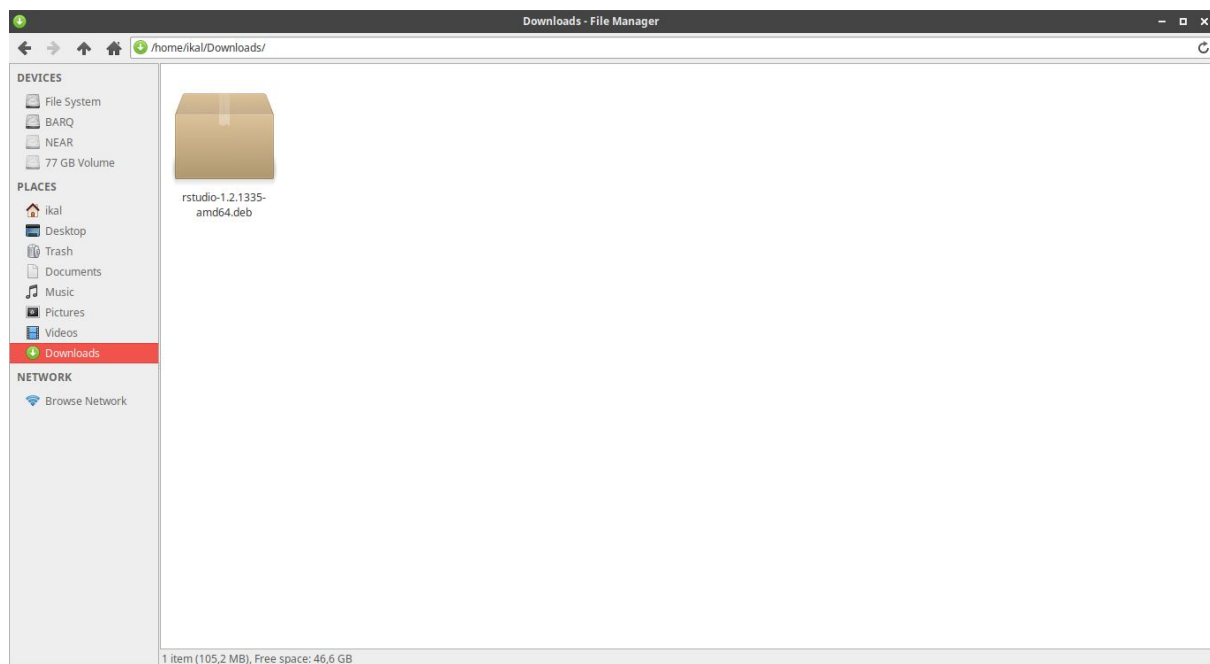
ProductsResourcesPricingAbout UsBlogs

Installers for Supported Platforms

Installers	Size	Date	MD5
RStudio 1.2.1335 - Windows 7+	126.9 MB	2019-04-08	d0e2470f1f8ef4cd35a669aa323a2136
RStudio 1.2.1335 - Mac OS X 10.12+ (64-bit)	121.1 MB	2019-04-08	6c570b0e2144583f7c48c284ce299eef
RStudio 1.2.1335 - Ubuntu 14/Debian 8 (64-bit)	92.2 MB	2019-04-08	c1b07d0511469abfe582919b183eee83
RStudio 1.2.1335 - Ubuntu 16 (64-bit)	99.3 MB	2019-04-08	c142d69c210257fb10d18c045fff13c7
RStudio 1.2.1335 - Ubuntu 18 (64-bit)	100.4 MB	2019-04-08	71a8d1990c0d97939804b46cfb0aea75
RStudio 1.2.1335 - Fedora 19+/RedHat 7+ (64-bit)	114.1 MB	2019-04-08	296b6ef88969a91297fab6545f256a7a
RStudio 1.2.1335 - Debian 9+ (64-bit)	100.6 MB	2019-04-08	1e32d4d6f6e216f086a81ca82ef65a91
RStudio 1.2.1335 - OpenSUSE 15+ (64-bit)	101.6 MB	2019-04-08	2795a63c7efd8e2aa2dae86ba09a81e5
RStudio 1.2.1335 - SLES/OpenSUSE 12+ (64-bit)	94.4 MB	2019-04-08	c65424b06ef6737279d982db9eefcae1

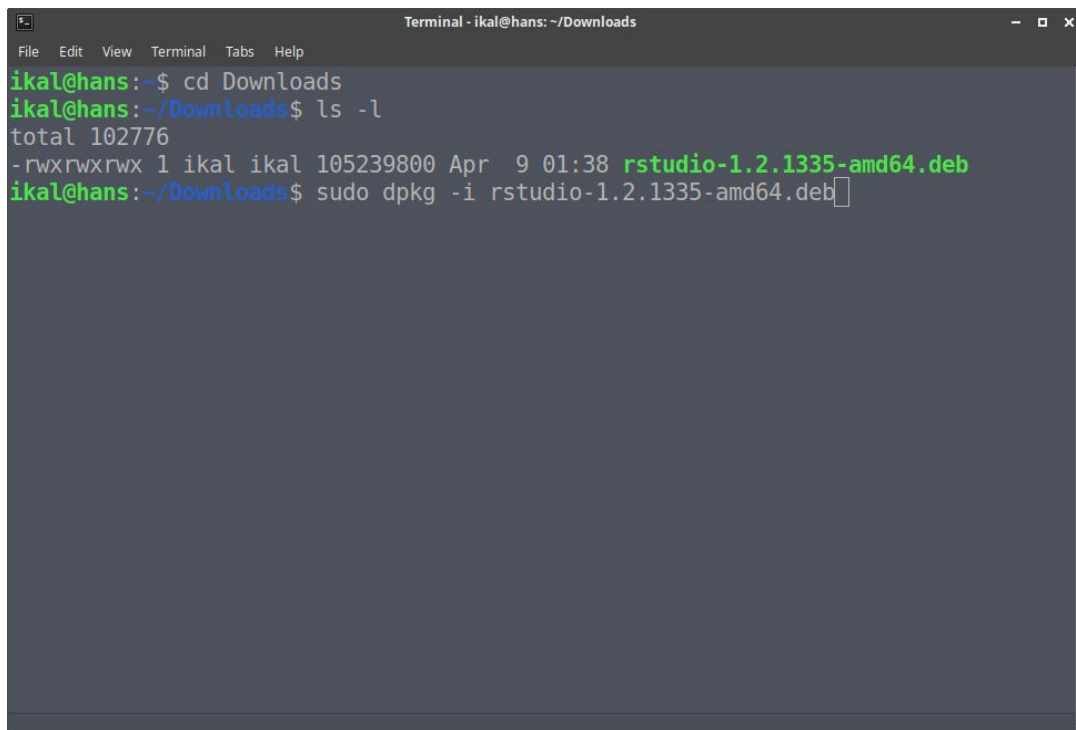
Tunggu unduhan selesai

7. Apabila berkas unduhan anda telah selesai



Silahkan buka Terminal baru atau lanjutkan proses pemasangan RStudio dengan keadaan seperti Terminal pada langkah ke 4.

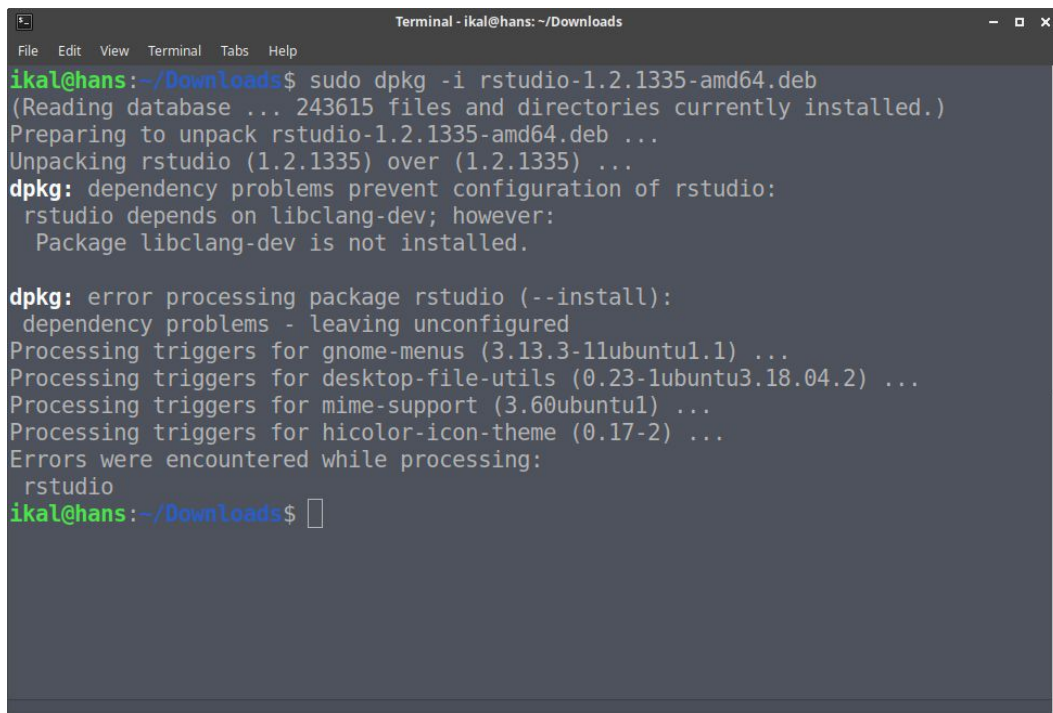
8. Masuk ke dalam direktori **Downloads**

A terminal window titled "Terminal - ikal@hans: ~/Downloads" with a menu bar (File, Edit, View, Terminal, Tabs, Help). The user enters the command `cd Downloads`. The prompt changes to `ikal@hans:~/Downloads$`. Then, the user enters `ls -l`, and the terminal displays the output: `total 102776` followed by a file entry: `-rwxrwxrwx 1 ikal ikal 105239800 Apr 9 01:38 rstudio-1.2.1335-amd64.deb`. Finally, the user enters `sudo dpkg -i rstudio-1.2.1335-amd64.deb` and the cursor is at the end of the command.

```
ikal@hans:~$ cd Downloads
ikal@hans:~/Downloads$ ls -l
total 102776
-rwxrwxrwx 1 ikal ikal 105239800 Apr 9 01:38 rstudio-1.2.1335-amd64.deb
ikal@hans:~/Downloads$ sudo dpkg -i rstudio-1.2.1335-amd64.deb
```

Perintah **ls -l** untuk melihat isi suatu direktori. Ketikkan perintah **sudo dpkg -i nama_file.deb** atau **sudo dpkg -i rstudio-1.2.1335-amd64.deb** untuk memulai instalasi RStudio.

9. Proses instalasi RStudio tidak berlangsung lama

A terminal window titled "Terminal - ikal@hans: ~/Downloads" with a menu bar (File, Edit, View, Terminal, Tabs, Help). The user enters `sudo dpkg -i rstudio-1.2.1335-amd64.deb`. The terminal shows the progress of the installation, including reading the database, preparing to unpack, and unpacking the file. However, it then displays an error: `dpkg: dependency problems prevent configuration of rstudio: rstudio depends on libclang-dev; however: Package libclang-dev is not installed.` This is followed by another error message: `dpkg: error processing package rstudio (--install): dependency problems - leaving unconfigured`. The terminal then shows the processing of triggers for other packages like `gnome-menus`, `desktop-file-utils`, `mime-support`, and `hicolor-icon-theme`. Finally, it states: `Errors were encountered while processing: rstudio`. The prompt returns to `ikal@hans:~/Downloads$`.

```
ikal@hans:~/Downloads$ sudo dpkg -i rstudio-1.2.1335-amd64.deb
(Reading database ... 243615 files and directories currently installed.)
Preparing to unpack rstudio-1.2.1335-amd64.deb ...
Unpacking rstudio (1.2.1335) over (1.2.1335) ...
dpkg: dependency problems prevent configuration of rstudio:
 rstudio depends on libclang-dev; however:
  Package libclang-dev is not installed.

dpkg: error processing package rstudio (--install):
 dependency problems - leaving unconfigured
Processing triggers for gnome-menus (3.13.3-11ubuntu1.1) ...
Processing triggers for desktop-file-utils (0.23-1ubuntu3.18.04.2) ...
Processing triggers for mime-support (3.60ubuntu1) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Errors were encountered while processing:
 rstudio
ikal@hans:~/Downloads$
```

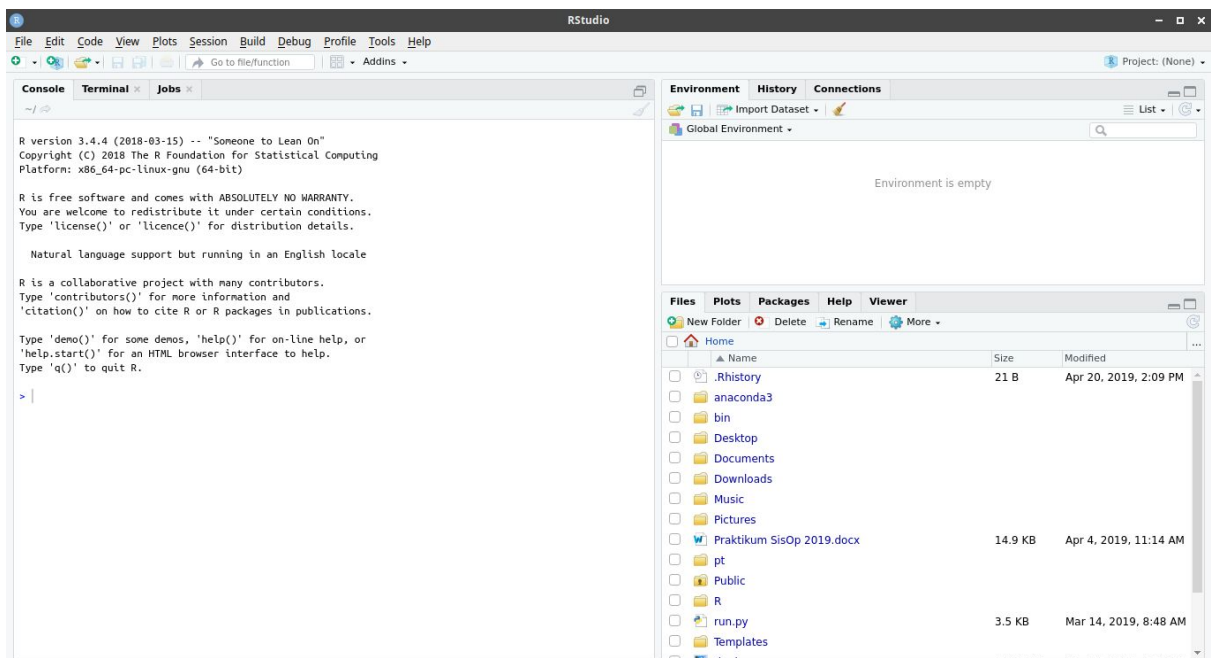
Abaikan pesan-pesan *error* kemudian tutup Terminal Anda

10. Cari lalu buka *shortcut* RStudio melalui *start menu* pada sistem operasi Anda



Klik atau jalankan seperti biasa

11. Tampilan utama RStudio



Apabila program tersebut sudah muncul maka Anda siap untuk mengikuti *workshop* JATIM CAMP ke 4, selamat! :)

Langkah-langkah pemasangan RStudio pada semua sistem operasi Linux berbasis Debian dan Ubuntu adalah sama saja. Caranya sama seperti yang ada pada Panduan instalasi ini.

Sekian Panduan Instalasi RStudio dari kami.
Apabila Anda menemukan kendala pada saat
menginstal RStudio jangan sungkan untuk menghubungi kami :)

Tertanda,

*Division of Research, Development, and Knowledge
Data Science Indonesia East Java Region*