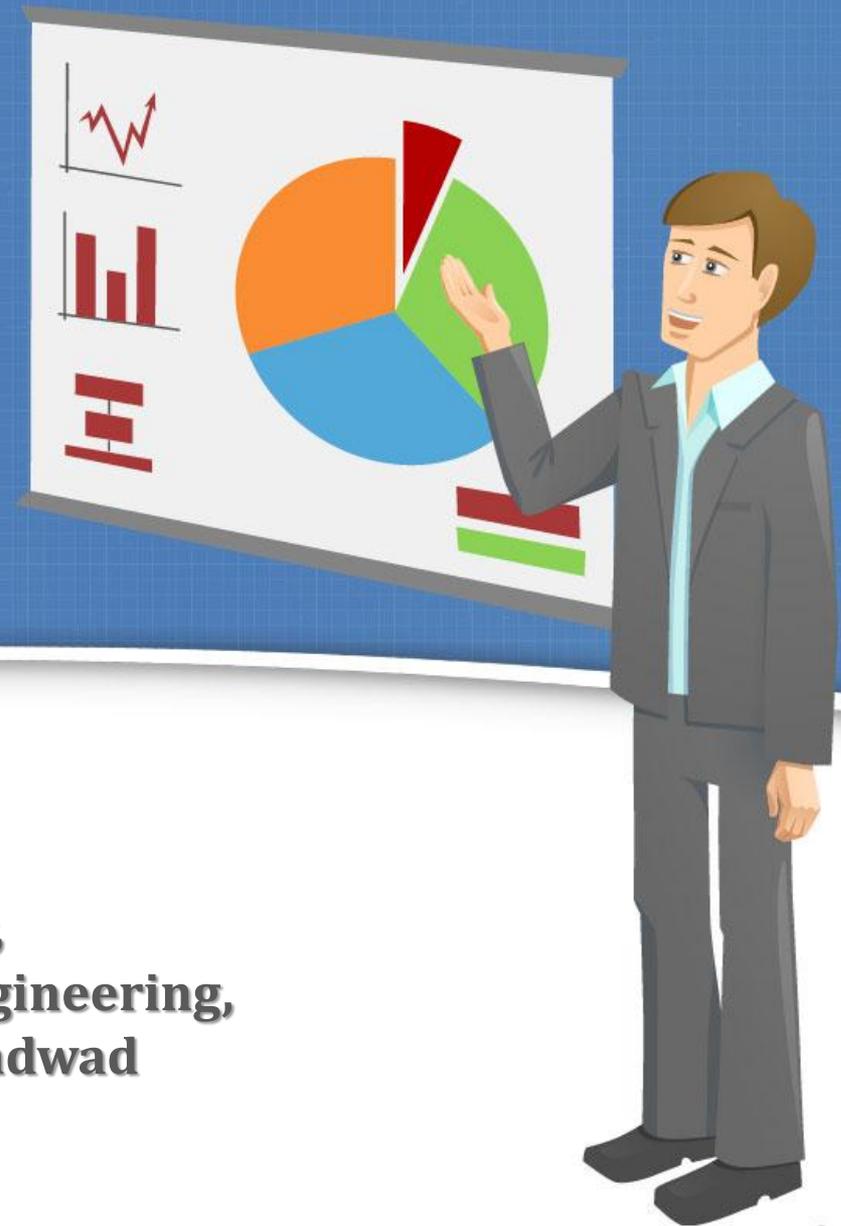


R Programming with MongoDB



**Prepare by
Prof. B.A.Khivsara
Assistant Professor,
Department of Computer Engineering,
SNJB's K.B. Jain COE, Chandwad**

Outline

Installation of R

Installation of RStudio

Installation of Mongo

Integration of Rmongo package into Rstudio

Program in RMongo

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R

R is a programming language and software environment for statistical analysis, graphics representation and reporting.

Installation of R

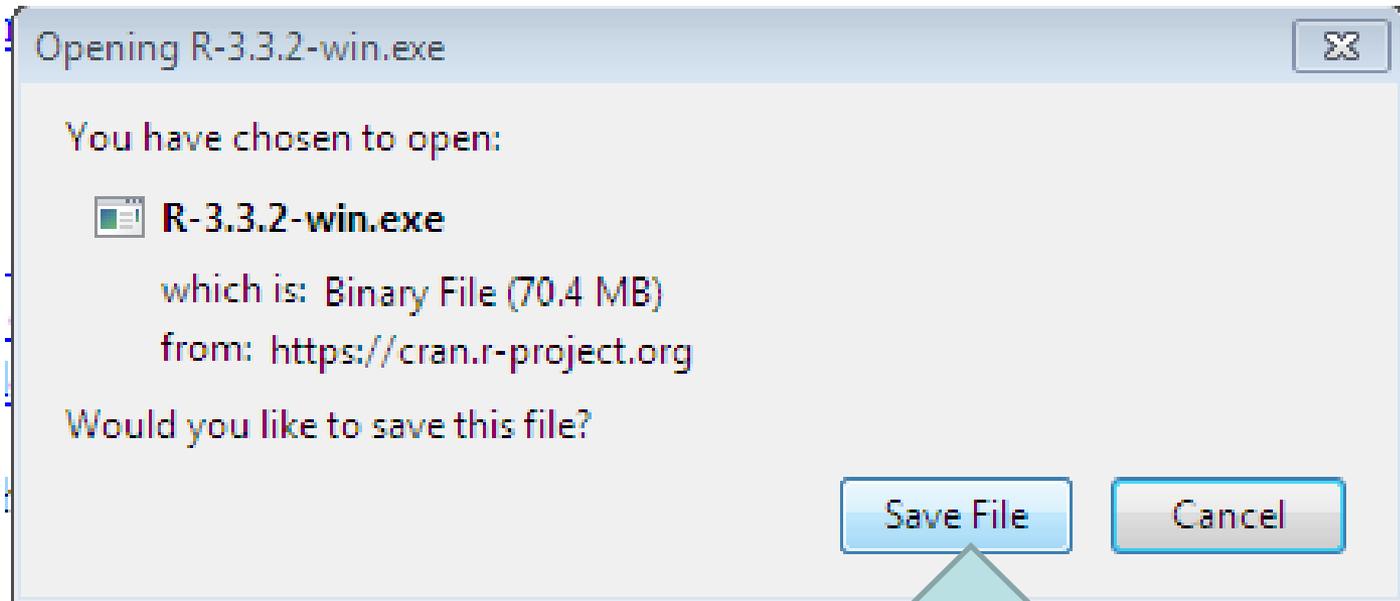
<https://cran.r-project.org/>

Download R for Windows

install R for the first time.

Download R 3.3.2 for Windows (62 megabytes,
32/64 bit)

Installation of R....



Click on Save File Option

Installation of R....



R-3.3.2-win.exe

70.4 MB — r-project.org — 2:31 PM



2259_customer_satisfaction.zip

302 KB — free-power-point-templates.com — 11:33 AM



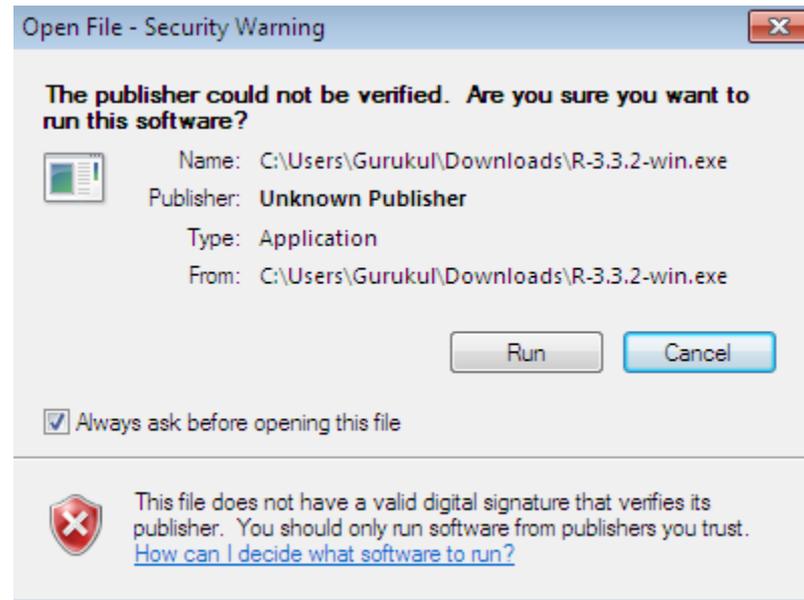
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193 KB — free-power-point-templates.com — 11:32 AM

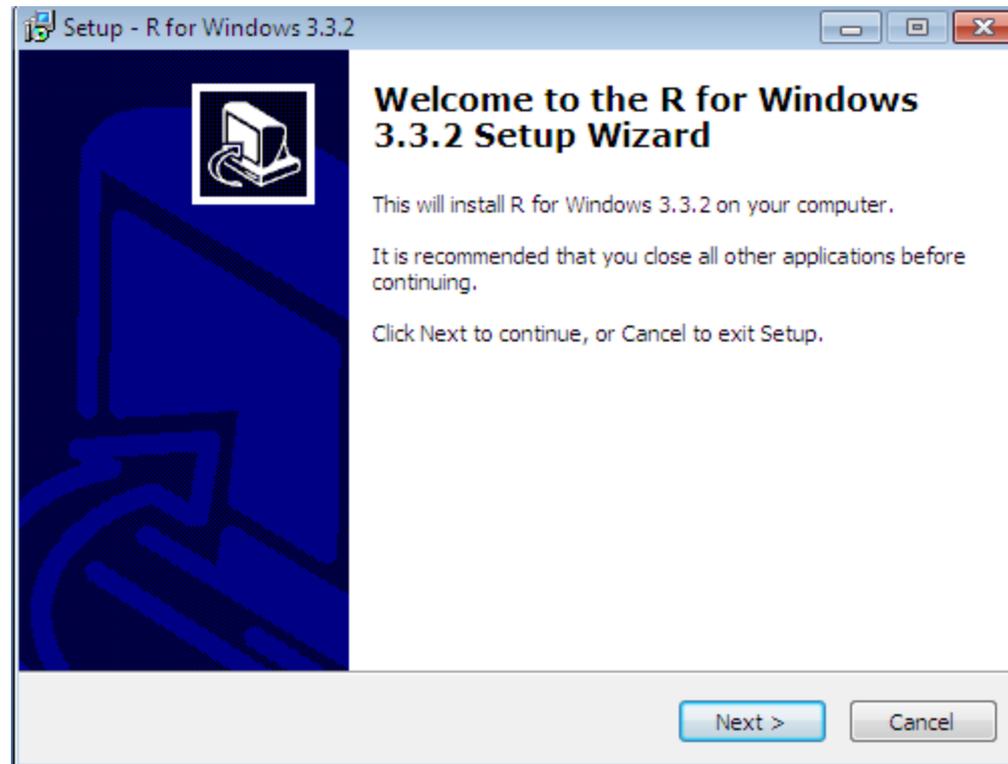


[Show All Downloads](#)

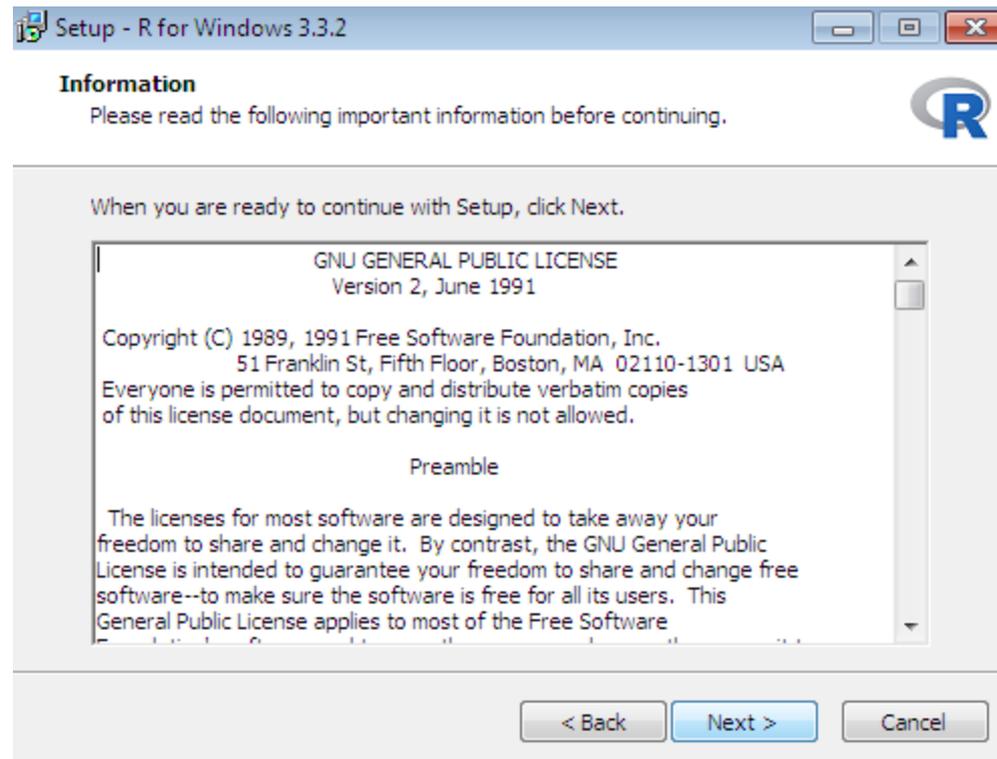
Installation of R....



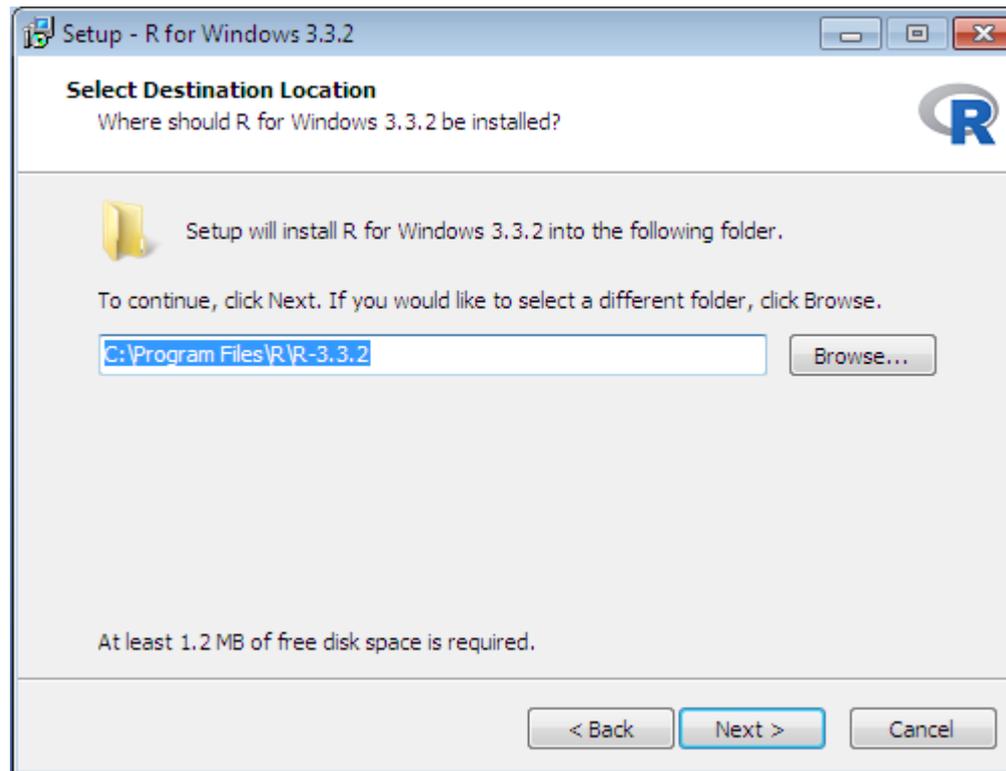
Installation of R....



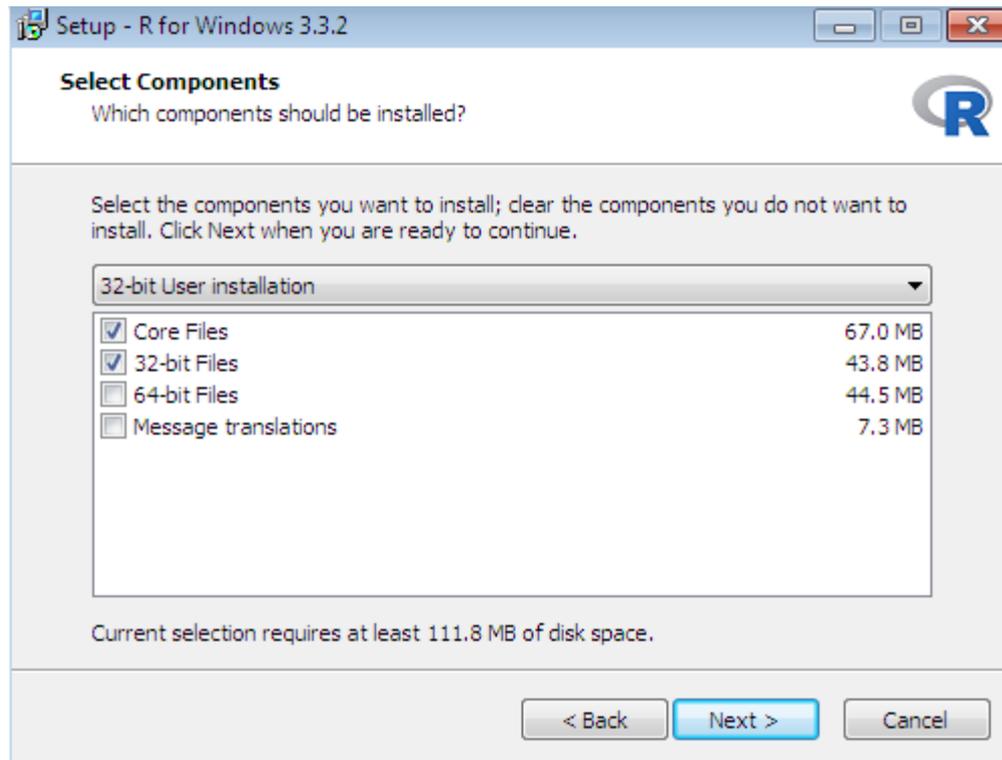
Installation of R....



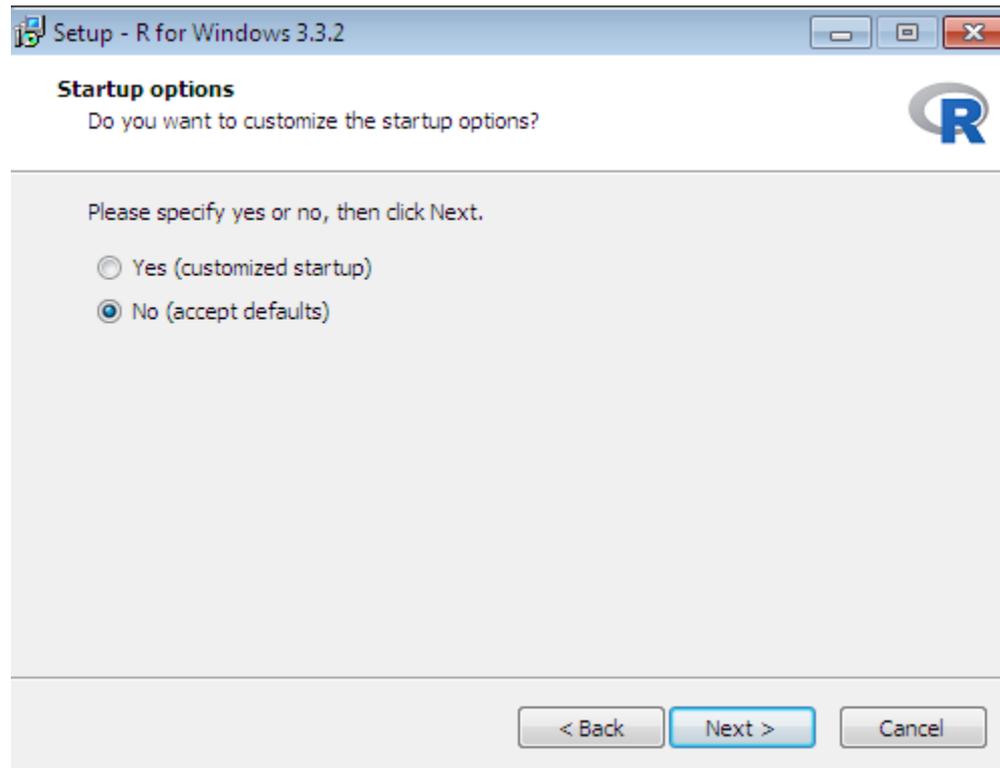
Installation of R....



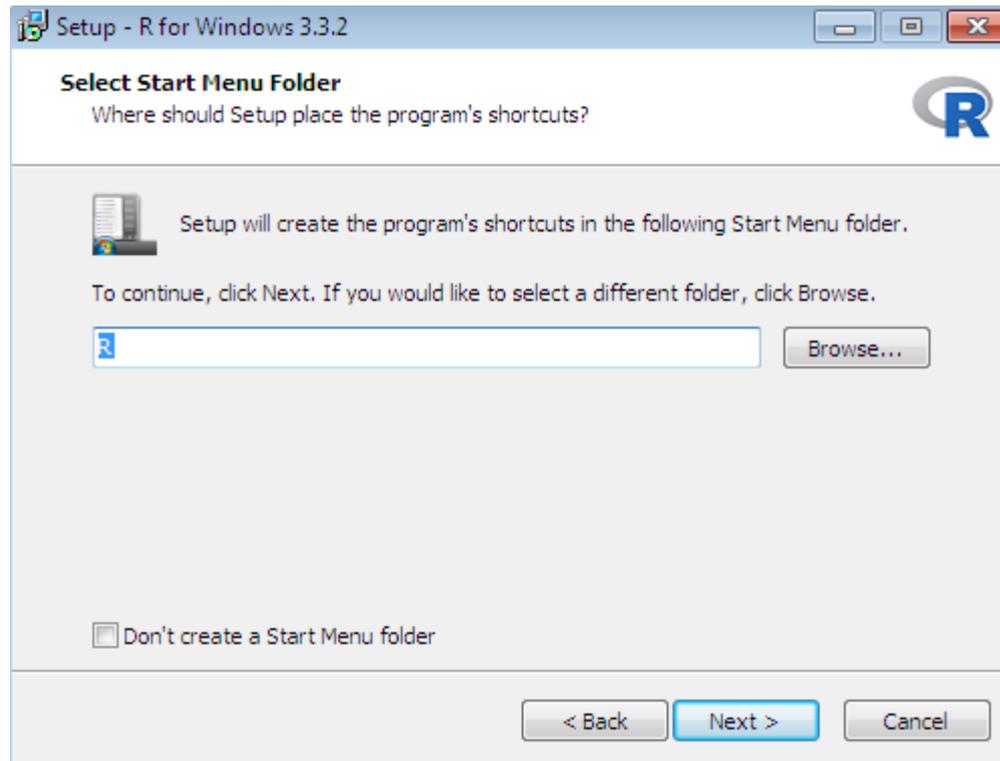
Installation of R....



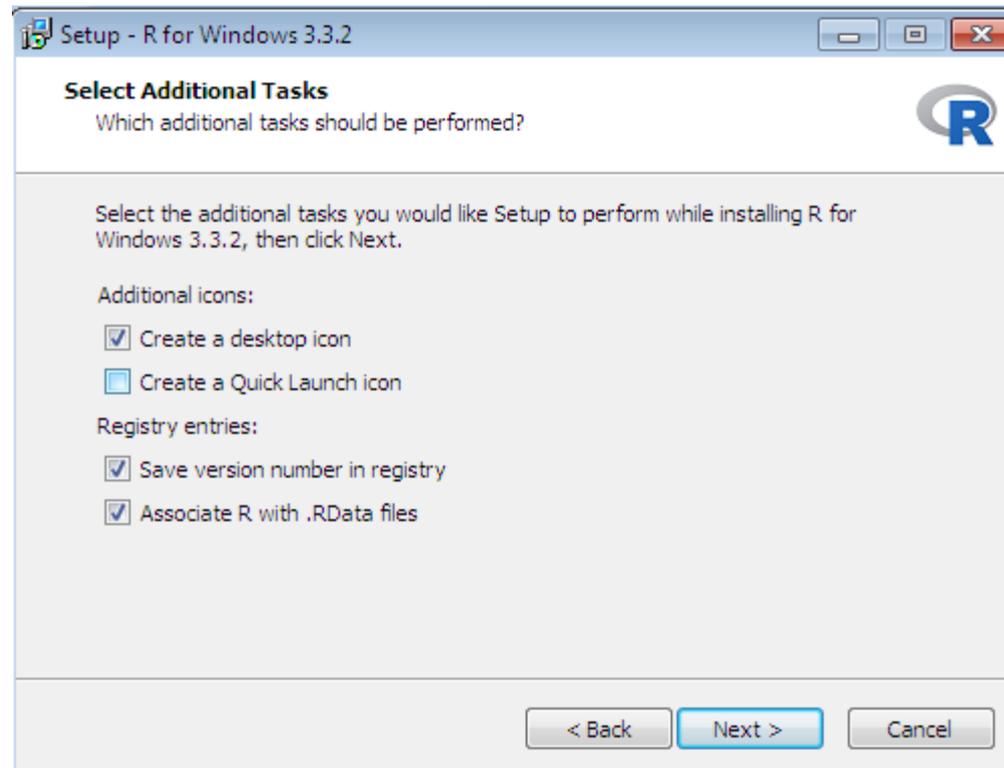
Installation of R....



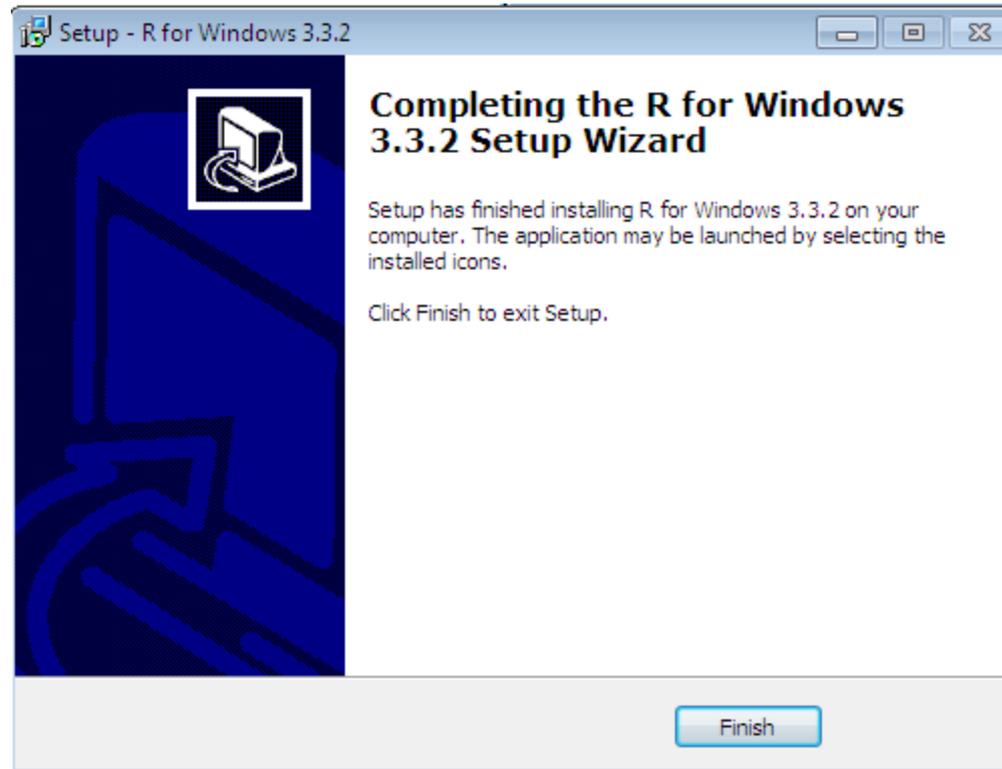
Installation of R....



Installation of R....



Installation of R....

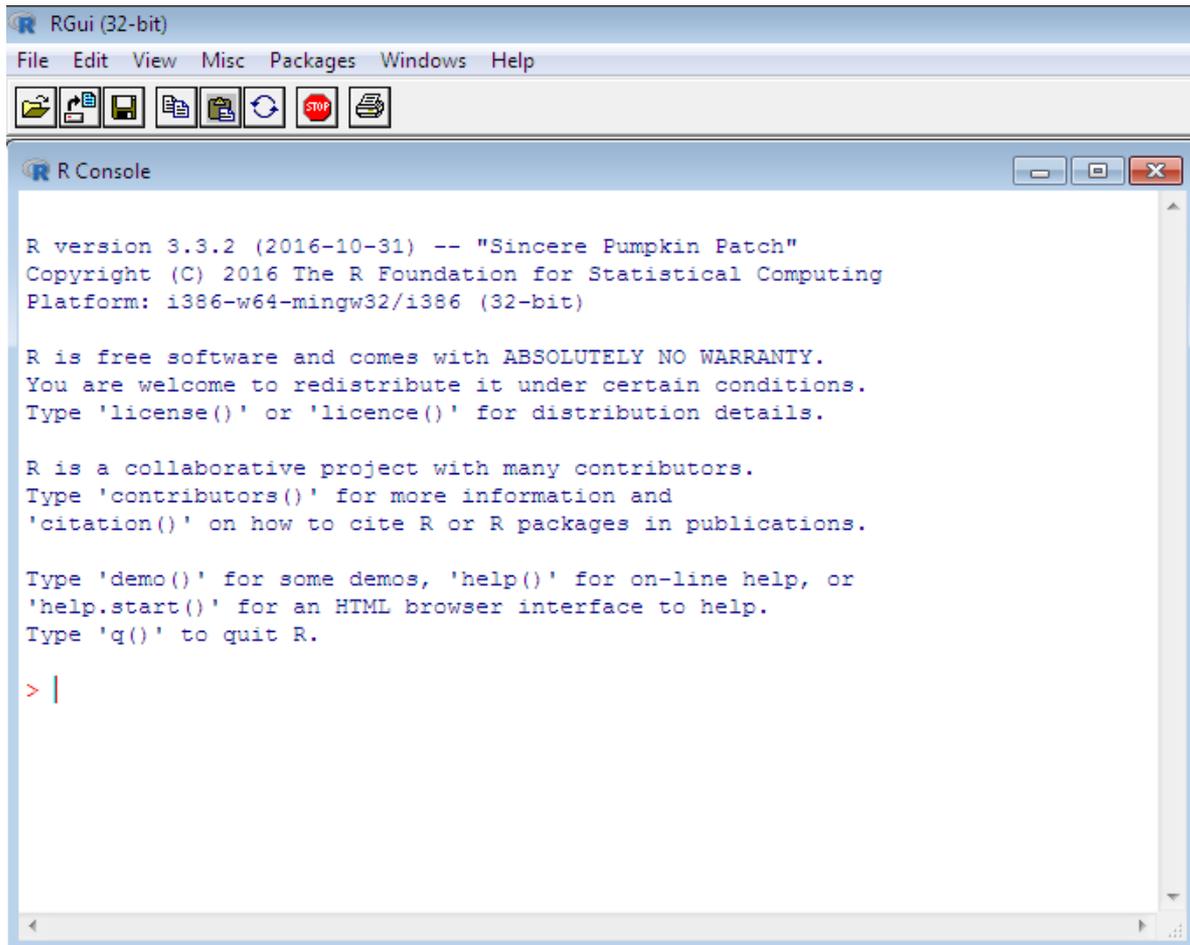


Installation of R....

You will see following Icon on your Desktop after successful completion of R Installation



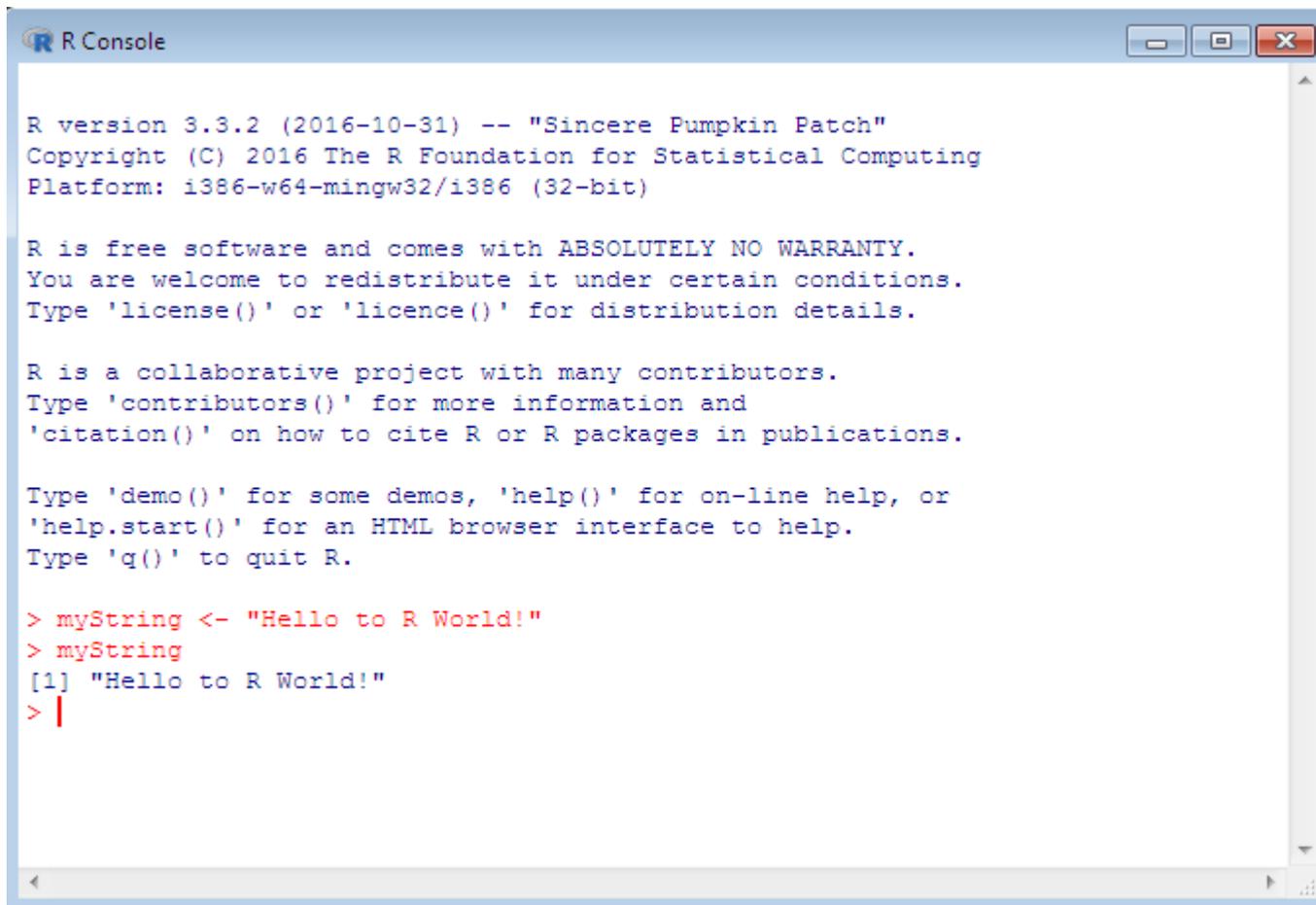
R....First look



The image shows a screenshot of the RGui (32-bit) application window. The window has a menu bar with 'File', 'Edit', 'View', 'Misc', 'Packages', 'Windows', and 'Help'. Below the menu bar is a toolbar with icons for file operations and execution. The main area is the 'R Console' window, which displays the following text:

```
R version 3.3.2 (2016-10-31) -- "Sincere Pumpkin Patch"  
Copyright (C) 2016 The R Foundation for Statistical Computing  
Platform: i386-w64-mingw32/i386 (32-bit)  
  
R is free software and comes with ABSOLUTELY NO WARRANTY.  
You are welcome to redistribute it under certain conditions.  
Type 'license()' or 'licence()' for distribution details.  
  
R is a collaborative project with many contributors.  
Type 'contributors()' for more information and  
'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.  
  
> |
```

R...First Command



```
R Console

R version 3.3.2 (2016-10-31) -- "Sincere Pumpkin Patch"
Copyright (C) 2016 The R Foundation for Statistical Computing
Platform: i386-w64-mingw32/i386 (32-bit)

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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.

> myString <- "Hello to R World!"
> myString
[1] "Hello to R World!"
> |
```

Outline

Installation of R

Installation of RStudio

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Integration of Rmongo package into Rstudio

Program in RMongo

Installation of R studio

RStudio makes R easier to use. It includes a code editor, debugging & visualization tools.

RStudio is a set of integrated tools designed to help you be more productive with R. It includes a console, syntax-highlighting editor that supports direct code execution, and a variety of robust tools for plotting, viewing history, debugging and managing your workspace.

Installation of R studio....

Open a browser and type following Web address

<http://www.rstudio.com>

Installation of R studio...

- Following page will be displayed click on suitable option that you want to download(Here I downloaded Rstudio Desktop-Opensource)

	RStudio Desktop Open Source License	RStudio Desktop Commercial License	RStudio Server Open Source License	RStudio Server Pro Commercial License
	FREE	\$995 per year	FREE	\$9,995 per year
Integrated Tools for R	●	●	●	●
Priority Support		●		●
Access via Web Browser			●	●
Enterprise Security				●
Project Sharing				●
Manage Multiple R Sessions & Versions				●
Admin Dashboard				●
Load Balancing				●
License	AGPL	Commercial	AGPL	Commercial
Pricing	FREE	\$995/yr	FREE	\$9,995/yr
	DOWNLOAD	BUY NOW	DOWNLOAD	DOWNLOAD

Installation of R studio.....

Select proper version of Rstudio according to your OS Version.



[rstudio::conf](#)

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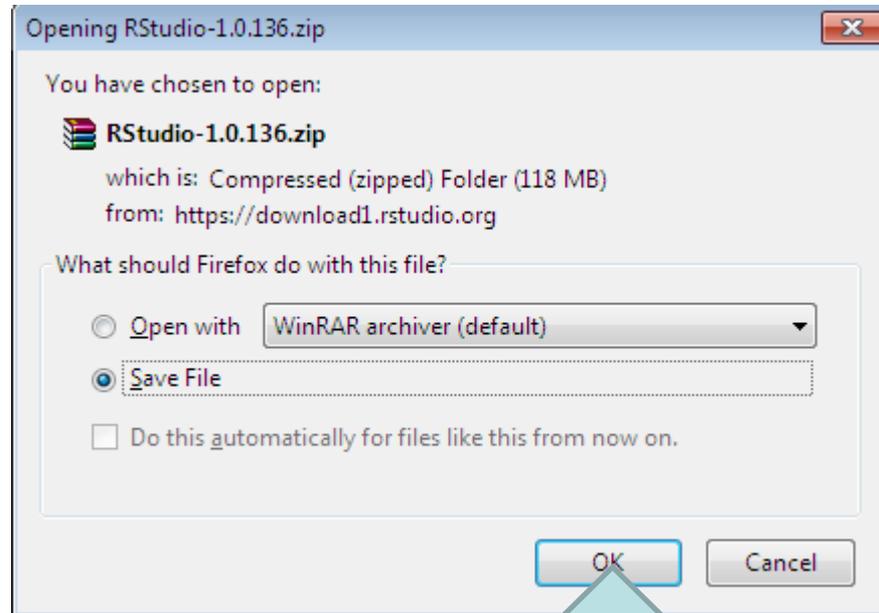
RStudio Desktop 1.0.136 — [Release Notes](#)

RStudio requires R 2.11.1+. If you don't already have R, download it [here](#).

Installers for Supported Platforms

Installers	Size	Date	MD5
RStudio 1.0.136 - Windows Vista/7/8/10	81.9 MB	2016-12-21	93b3f307f567c33f7a4db4c114099b3e
RStudio 1.0.136 - Mac OS X 10.6+ (64-bit)	71.2 MB	2016-12-21	12d6d6ade0203a2fcef6fe3dea65c1ae
RStudio 1.0.136 - Ubuntu 12.04+/Debian 8+ (32-bit)	85.5 MB	2016-12-21	0a20fb89d8aaeb39b329a640ddadd2c5
RStudio 1.0.136 - Ubuntu 12.04+/Debian 8+ (64-bit)	92.1 MB	2016-12-21	2a73b88a12a9fbaf96251cecf8b41340
RStudio 1.0.136 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (32-bit)	84.7 MB	2016-12-21	fa6179a7855bff0f939a34c169da45fd
RStudio 1.0.136 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (64-bit)	85.7 MB	2016-12-21	2b3a148ded380b704e58496befb55545

Installation of R studio.....



Click on Save File Option

Installation of R studio.....



RStudio-1.0.136.zip

118 MB — rstudio.com — 3:30 PM



R-3.3.2-win.exe

70.4 MB — r-project.org — 2:31 PM



2259_customer_satisfaction.zip

302 KB — free-power-point-templates.com — 11:33 AM

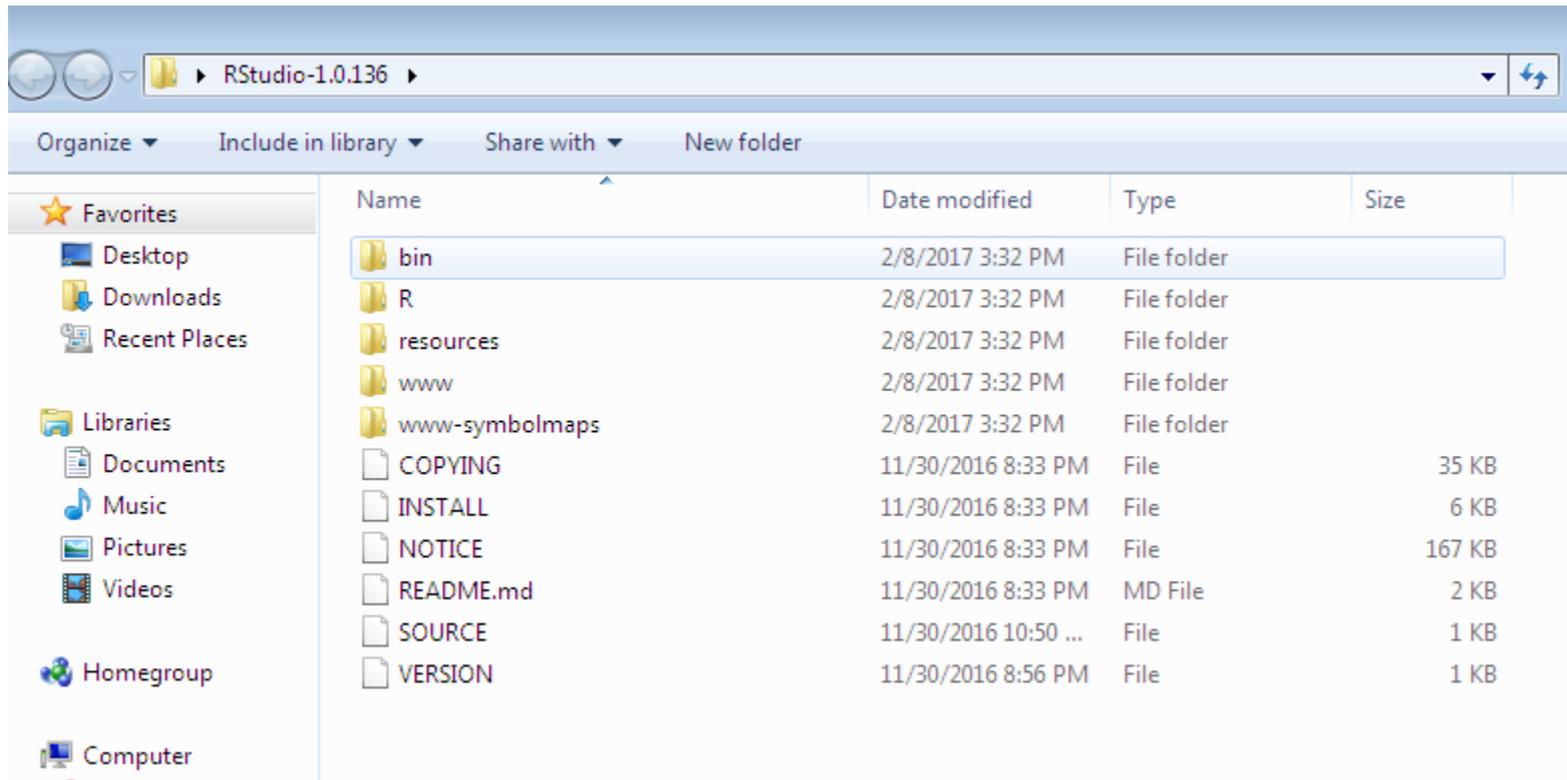


[Show All Downloads](#)

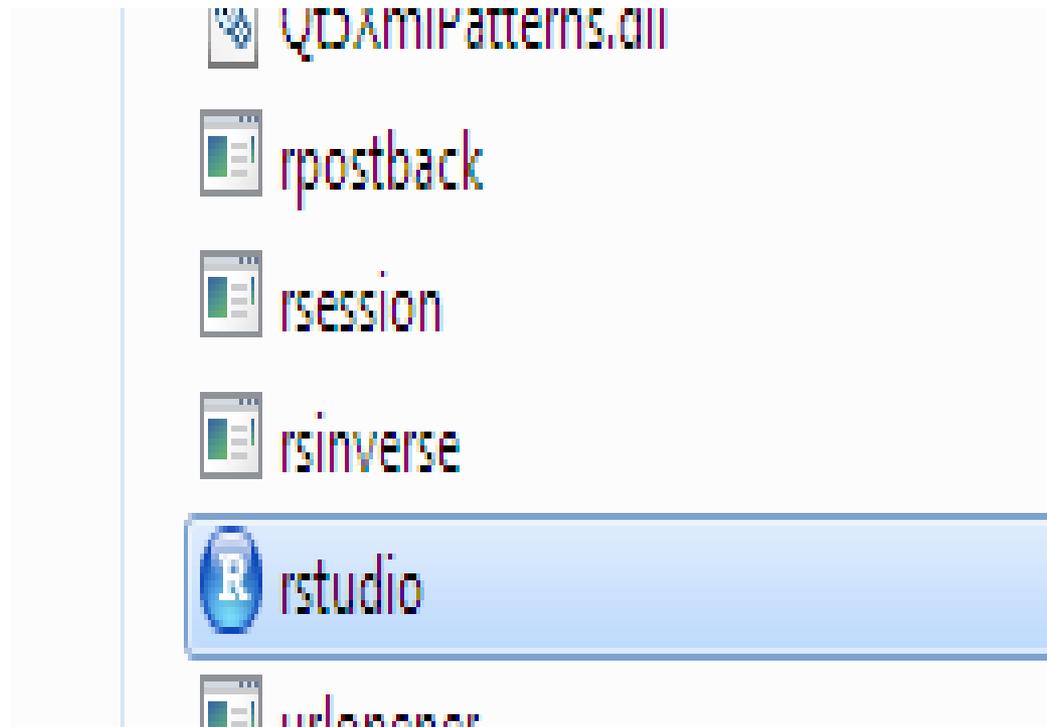
R studio has Installed successfully



Open R studio folder and click on bin folder



Find rstudio in bin folder and click on it.



Console ~/

```
version 3.3.2 (2016-10-31) -- "Sincere Pumpkin Patch"  
copyright (C) 2016 The R Foundation for Statistical Computing  
platform: i386-w64-mingw32/i386 (32-bit)  
  
This is free software and comes with ABSOLUTELY NO WARRANTY.  
You are welcome to redistribute it under certain conditions.  
Type 'license()' or 'licence()' for distribution details.  
  
R is a collaborative project with many contributors.  
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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.  
  
|
```

Environment History

Import Dataset

Global Environment

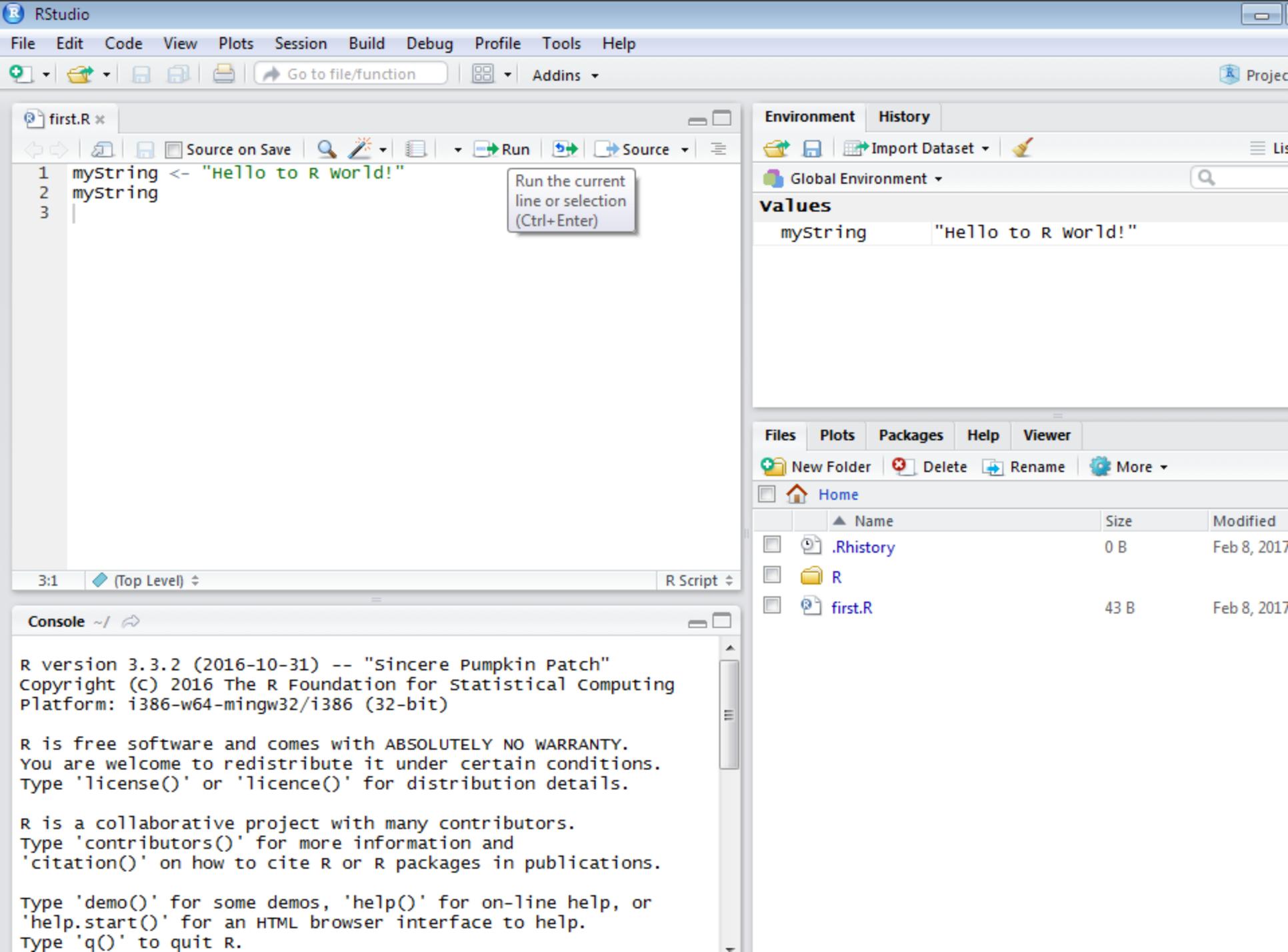
Environment is empty

Files Plots Packages Help Viewer

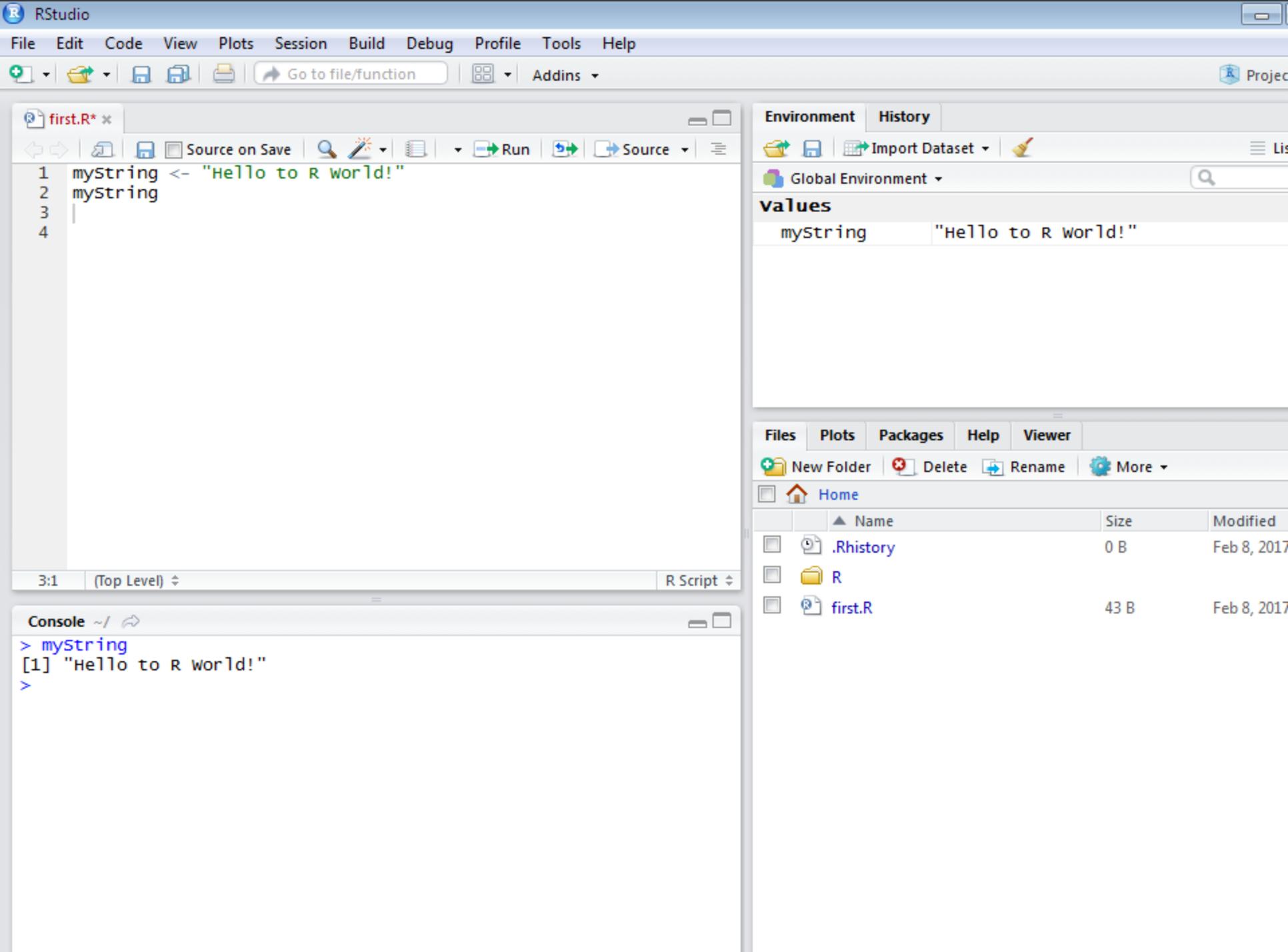
New Folder Delete Rename More

Home

	Name	Size	Modified
	.Rhistory	0 B	Feb 8, 2017, 3:3
	R		



- **Ctrl+L** to clear console screen



Outline

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Installation of Mongo

Create one folder eg SNJB in bin folder of MongoDB

Goto command prompt

Goto bin dir of MongoDB and write following command

```
mongod --storageEngine=mmapv1 --dbpath SNJB  
(Server will started and listen at 27017 port)
```

Open another command prompt and give command
mongo (Client will be started)

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RMongo & rjava Packages in RStudio

- Open Rstudio and on console write
- `>install.packages("Rmongo")`
- If error comes for Internet Connection then
 - Set no proxy setting
 - Default browser set Internet Explorer
- In Rstudio Menu ->Tool ->Global Options -> Packages -> Uncheck use Internet explorer library/proxy for HTTP and try again to `install.packages("Rmongo")`

RMongo & rjava Packages in RStudio

- In right side bottom window in Rstudio
- Package tab
- Check rjava and Rmongo
- If error comes then need to install java version from official website which will be compatible with R version you are using.
- If no error comes then write following command on console
- `>help(package=RMongo)`

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Program in RMongo

First RMongo Script/Program

```
library(RMongo)
mg1<-mongoDbConnect('db1')
dbShowCollections(mg1)
dbInsertDocument(mg1,"stud",{rno:1,name:"Amit"})
res<-dbGetQuery(mg1,'stud',{ })
print(res)
```

- **Note: Before running script make sure that Mongo Server is started.**