Ubuntu Setup for Data Science - R, MySql, IPython, Git

Ubuntu commands to check version:
-- Check version of Ubuntu OS installed: $lsb_release -a
-- Check 32/64 bit Ubuntu Installed: $uname -a

Ubuntu commands for updates:
-- Updates for Ubuntu: $sudo apt-get update # (updates list of available packages)
-- Upgrades for Ubuntu: $sudo apt-get upgrade # (installs newer versions of packages)

Ubuntu commands to install Synaptic and other tools:
-- Support for Mp3/Flash/Video: $sudo apt-get install ubuntu-restricted-extras
-- Synaptic Package Manager: $sudo apt-get install synaptic

Recommended Packages to Install via Synaptic Package Manager:
-- General:
chromium-browser
vlc

-- Git:
git
git-gui

-- R:
r-base
r-base-core
r-base-dev
libzmq3 # package for R kernel
libzmq3-dev # package for R kernel
libjpeg62 #optional: development package for jpeg in R

-- MySQL:
mysql-client
mysql-server
mysql-workbench

Install R in Ubuntu via Terminal:

-- Install R: $sudo apt-get install littler

Update R using Synaptic:

-- Open the link: https://cran.r-project.org/bin/linux/ubuntu/README
-- Check the Ubuntu Version and copy the correct deb path
-- Open the link: https://cran.r-project.org/mirrors.html
-- Replace the link in Step 2 with the mirror.
Examples for the above steps:
a. Example deb path => deb https://<my.favorite.cran.mirror>/bin/linux/ubuntu wily/
b. Example mirror path => https://cran.rstudio.com/
c. Example output link => deb https://cran.rstudio.com//bin/linux/ubuntu wily/
-- Open Synaptic -> Settings -> Repositories -> Other Software -> Add and Enter the output link formed above
-- Add the source, check mark the added source and click close
-- Reload and finish installation
-- To authenticate and Secure APT:
a. Go to the link: https://cran.r-project.org/bin/linux/ubuntu/README
b. Search for Secure Apt and add the key to the system via the terminal.
-- Restart the terminal

Install R Studio:

-- Website: https://www.rstudio.com/products/rstudio/download/

Install Python v2.7, Anaconda and Jupyter:

-- Anaconda Installer 32/64 bit for Python 2.7: https://www.continuum.io/downloads
-- Copy downloaded file to the desired directory and execute the command below via terminal:
$bash Anaconda2-2.4.0-Linux-x86_64.sh
-- Restart the terminal
-- Check python version: $python --version
-- Install jupyter via Anaconda: $conda install jupyter
-- Update Conda Installer: $conda update conda
-- Update Anaconda: $conda update anaconda
-- Check ipython notebook: $ipython notebook
-- Pymysql databse connectors for python: $conda install pymysql
-- Update/Upgrade Ubuntu

Install R Kernel in Jupiter:

-- Update/Upgrade Ubuntu and Anaconda

-- Open R via Ubuntu terminal (type R in the terminal) and execute the following commands:

```
#1. Install New Packages:
install.packages(
        c('rzmq','repr','IRkernel','IRdisplay'),
        repos = c('http://irkernel.github.io/', getOption('repos'))
)

#2. Install IR Kernel
IRkernel::installspec()
```

Basic Conda Commands:

-- Conda version: $conda --version

-- Update Anaconda: $conda update anaconda

-- Update Conda Installer: $conda update conda

-- List all installed Conda packages: $conda list

-- Search for a package: $conda search packageName

-- Install Conda packages: $conda install packageName or $pip install packageName

-- Remove installed Conda package: $conda remove packageName

Check command history:

-- Terminal command history from start till shutdown: $history > history.txt

-- View terminal history: $cat history.txt