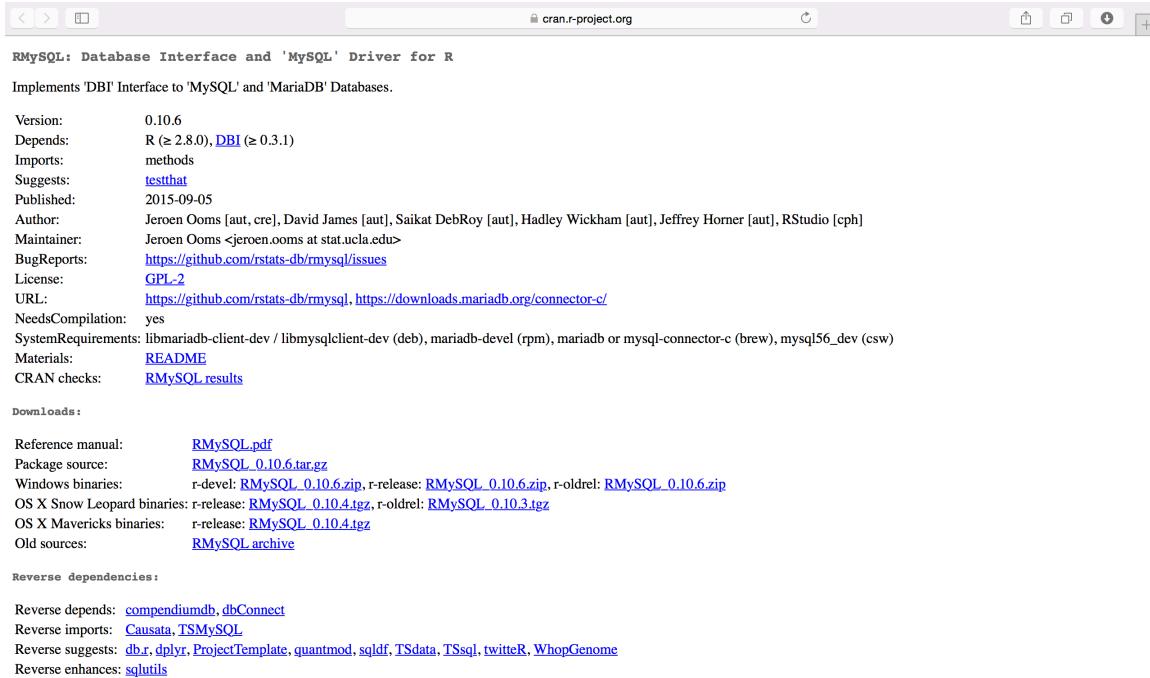


## CONNECTING TO THE MySQL Database using R for MAC OS X

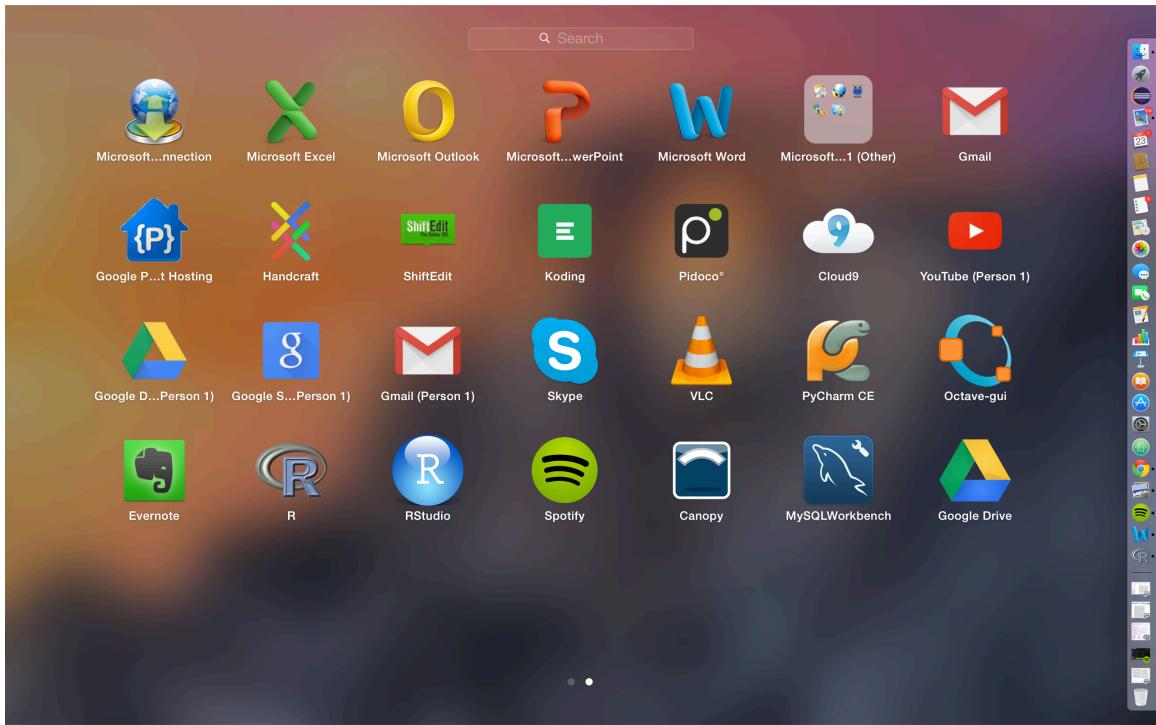
- 1) To connect to MySQL using R use the RMySQL package. You can download the package from the following link:

<https://cran.r-project.org/web/packages/RMySQL/index.html>



The screenshot shows a web browser displaying the CRAN package page for RMySQL. The page title is "RMySQL: Database Interface and 'MySQL' Driver for R". It provides detailed information about the package, including its version (0.10.6), dependencies (R >= 2.8.0, DBI >= 0.3.1), imports (methods), suggests (testthat), and authors (Jeroen Ooms, David James, Saikat DebRoy, Hadley Wickham, Jeffrey Horner, RStudio). It also lists bug reports, license (GPL-2), and URLs for GitHub and MariaDB. The "Downloads" section includes links for the reference manual (RMySQL.pdf), source code (RMySQL\_0.10.6.tar.gz), and binary packages for various operating systems. The "Reverse dependencies" section lists packages that depend on RMySQL, such as compendiumdb, dbConnect, Causata, TSMYSQL, db\_r, dplyr, ProjectTemplate, quantmod, sqldf, TSdata, TSsql, twitteR, and WhopGenome.

- 2) Download the RMySQL\_0.10.4.tgz file. This is the package that will provide the required functions to connect R to MySQL.
- 3) Open the R Terminal from the Launcher.



```
> ls
function (name, pos = -1L, envir = as.environment(pos), all.names = FALSE,
pattern, sorted = TRUE)
{
  if (!missing(name)) {
    pos <- match.name(name, envir = function(e) e)
    if (inherits(pos, "error")) {
      name <- substitute(name)
      if (is.character(name))
        name <- deparse(name)
      warning(gettextf("%s converted to character string",
                       sQuote(name)), domain = NA)
      pos <- name
    }
  }
  all.names <- Internal(ls(envir, all.names, sorted))
  if (!missing(pattern)) {
    if ((l1 <= lengthgrep("[", pattern, fixed = TRUE))) &
      (l1 == lengthgrep("]", pattern, fixed = TRUE))) {
      if ((l1 == 1) | (l1 == length(pattern)))
        pattern <- "\\\\["
      warning("replaced regular expression pattern '[' by '\\\\\\[\"")
    } else if (length(pattern) == l1) {
      pattern <- sub("\\\\\[", "\\\\\\\\\[", pattern)
      warning("replaced '[-' by '\\\\\\\\[-' in regular expression pattern")
    }
    grep(pattern, all.names, value = TRUE)
  }
  else all.names
}

<environment: namespace:base>
> install.packages("RMySQL", lib = "/data/Rpkgs/")
Warning in install.packages("RMySQL", lib = "/data/Rpkgs/"):
  "lib" is not a writable directory
Would you like to use a personal library instead? (y/n) n
Error in install.packages("RMySQL", lib = "/data/Rpkgs/") :
  unable to find 'configure' file
> install.packages("RMySQL", type="source")
--- Please select a CRAN mirror for use in this session ---
trying URL http://lib.stat.cmu.edu/R/CRAN/src/contrib/RMySQL_0.10.6.tar.gz
Content type 'application/x-gzip' length 52407 bytes (51 KB)
downloaded 51 KB

* installing *source* package 'RMySQL'
** package 'RMySQL' successfully unpacked and MD5 sums checked
Using PKG_LIBS=-L/usr/local/opt/mysql-connector-c/include
Using PKG_LIBS=-L/usr/local/opt/mysql-connector-c/lib -lmysqlclient -l
ANTICONF ERROR
Configuration failed because mysql-connector-c was not found. Try installing:
* mysql-libs-dev mysql-connector-dev (Debian, Ubuntu)
* rpm: mariadb-devel mysql-devel (Fedora, CentOS, RHEL)
* csw: mysql56_dev (Solaris)
* brew: mysql56 (Mac OS X)
If mysql-connector-c is already installed, check that 'pkg-config' is in your
PATH and PKG_CONFIG_PATH contains a mysql-connector-c.pc file. If pkg-config
is available you can set INCLUDE_DIR and LIB_DIR manually via:
R CMD INSTALL --configure-vars=INCLUDE_DIRS LIB_DIRS
-----
ERROR: configuration failed for package 'RMySQL'
* removing '/Library/Frameworks/R.framework/Versions/3.2/Resources/library/RMySQL'
```

4) To install the package use the following command on the R Terminal.  
`install.packages('/Users/priyank_kumar/Downloads/RMySQL_0.10.4.tgz',repos = NULL, type='source')`. The first argument of the function is the location of the package on your system, second argument is for setting up repositories on the system and the third is for the type of installation package.

5) After you get the success message proceed with the following instructions.

6) To create a connection to the MySQL server use the following command:

```
connObj <- dbConnect(MySQL(), user='root', password='root',  
dbname='mysql', host='localhost')
```

Argument 1 – MySQL()

Argument 2 – Username

Argument 3 – Password

Argument 4 – Database name of database you want to select

Argument 5 – Hostname

7) You have now a connection object named as connObj and you can use it to perform various operations.

8) An example of a MySQL query in R is provided below:

```
rs <- dbSendQuery(connObj, "select name from user limit 10;")
```

In this we use the connection object created above as the first argument and provide the query required as the second argument.

9) After you have completed the assigned work use **dbDisconnect(connObj)** to release the connection.