

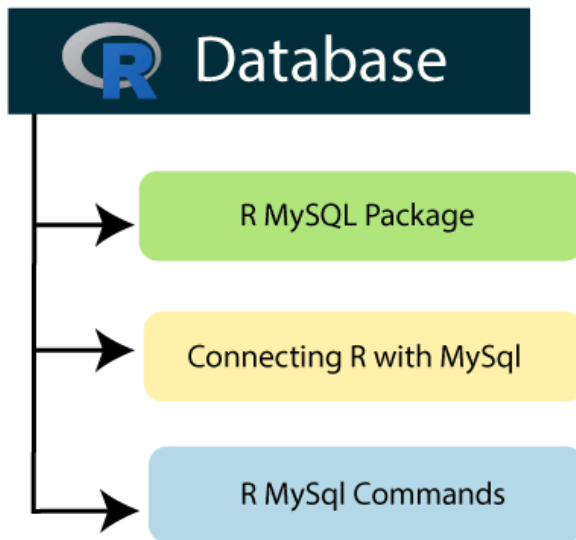
R

Programming

R Databases

R can easily connect with many of the relational databases like MySQL, SQL Server, Oracle, etc.

When we extract the information from these databases, by default, the information is extracted in the form of data frame.



RMySQL Package

RMySQL package is one of the most important built-in package of R.

This package provides native connectivity between the R and MySql database.

```
install.package("RMySQL")
```

Create a connection between R and MySql

To work with MySql database, it is required to create a connection object between R and the database.

For creating a connection, R provides **dbConnect()** function.

This function takes the username, password, database name, and host name as input parameters.

R MySQL Commands

For performing the query on the database, R provides the `dbSendQuery()` function.

The query is executed in MySQL, and the result set is returned using the `R fetch ()` function.

Finally, it is stored in R as a data frame.

After each results are printed close the result object.

R Commands



R webData

Using R programs, we can programmatically extract specific data from such websites.

Some packages in R which are used to scrap data form the web are – "RCurl", "XML", and "stringr".

They are used to connect to the URL's, identify required links for the files and download them to the local environment.

```
install.packages("RCurl")
```

```
install.packages("XML")
```

```
install.packages("stringr")
```

```
install.packages("plyr")
```

function `getHTMLLinks()` to gather the URLs of the files.

function `download.file()` to save the files to the local system.