SQL Database

## Working with SQL database in R

### [DBI and odbc](https://db.rstudio.com/getting-started/connect-to-database) pacakges are used in connecting an existing database.

#### Using credentials to create a MS SQL connection - called ‘con’ -

library(DBI)  
con <- dbConnect(odbc::odbc(), driver = "ODBC Driver 13 for SQL Server",   
 server = "database server name", Database = "database name",   
 uid = "your database username",   
 pwd = "your database password")

#### Querying database data with SQL queries

dbGetQuery(conn = con,statement = 'your SQL statement query')

#### Writing a in-memory data frame to a database table

# writing a new datatable in SQL server database  
dbWriteTable(conn = con,name = 'your new table name',value = 'dataframe name')   
# Overwriting the exiting database table  
dbWriteTable(conn = con,name = 'your exiting table name',value = 'dataframe name', overwrite = TRUE)   
# Appending dataframe into the exiting database table  
dbWriteTable(conn = con,name = 'your exiting table name',value = 'dataframe name', append = TRUE)

#### Closing the connection if needed

dbDisconnect(conn = con)

### for more functions available in DBI, check [here](http://dbi.r-dbi.org/reference/)