R and SQLite

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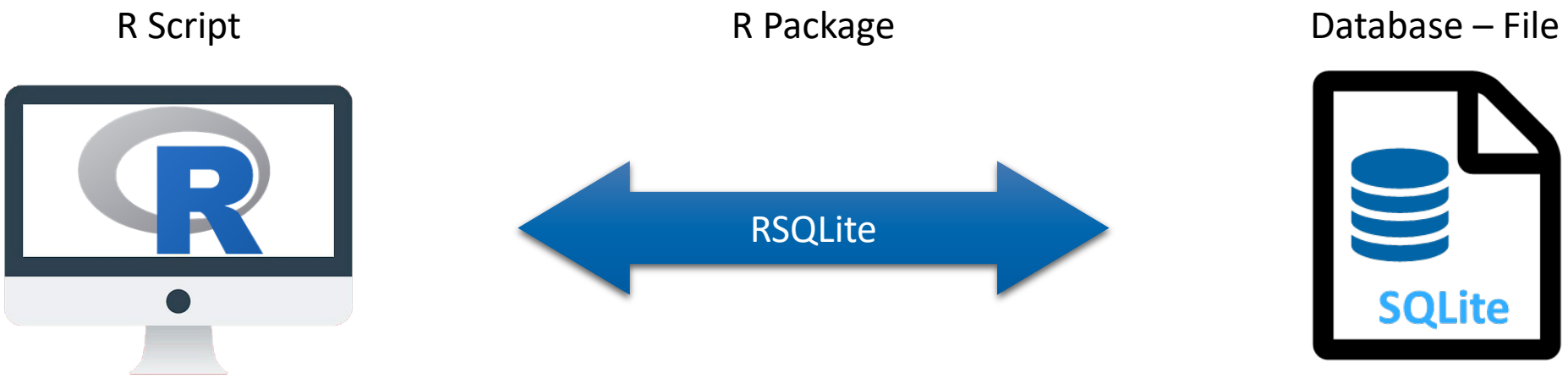
Introduction

RSQLite

To be able to connect to a MySQL database in R, the package **RSQLite** is required.

```
> install.packages("RSQLite")
```



Connect

The first thing to do in R to access a SQLite database is to establish a connection to the file.

```
# import RSQLite package
library(RSQLite)

# establish a connection to the MySQL database
database <- dbConnect(SQLite(), dbname='filename')

# close connection
dbDisconnect(database)
```

Connect

Configuration

Nothing to do here… no secure information has to be stored.

Connect

Errors

Nothing to do here… we leave error handling to the functions defined in the RSQLite-package.

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Query

Exactly the same as with the RMySQL package...

To execute a query, the function **dbSendQuery** is used:

```
# statement
query <- "some valid sql statement;"

# execute statement
dbSendQuery(database,query)
```

Query

Exactly the same as with the RMySQL package...

INSERT

```
# set values
value1 <- 10
value2 <- "shrubbery"

# statement
query <- paste0("INSERT INTO tablename (attribute1, attribute2)
                                VALUES (", value1, ",", value2, ");"

# execute statement
dbSendQuery(database,query)
```

SELECT

```
# set value
value <- 10

# statement
query <- paste0("SELECT * FROM tablename
                 WHERE attribute = ", value, ";"

# execute statement
result <- dbSendQuery(database,query)

# get the data
data <- dbFetch(result, n=-1)
```

Query

Exactly the same as with the RMySQL package...

dbReadTable

```
# get the data
data = dbReadTable(database,"tablename")
```

dbWriteTable

```
# write to database
dbWriteTable(database,"tablename", data)

# overwrite if table already exists
dbWriteTable(database,"tablename", data, overwrite=TRUE)

# append data if table already exists
dbWriteTable(database,"tablename", data, append=TRUE)
```