Package 'RKinetica'

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Type Package

dbExecute, Kinetica Connection, character-method10dbExists Table, Kinetica Connection, character-method11dbFetch12dbGetInfo13dbGetQuery, Kinetica Connection, character-method15

dbGetRowCount,KineticaResult-method
dbGetRowsAffected,KineticaResult-method
dbGetStatement,KineticaResult-method
dbHasCompleted,KineticaResult-method
dbIsReadOnly
dbIsValid
dbIsValid,KineticaConnection-method
dbListConnections,KineticaDriver-method
dbListFields,KineticaConnection,character-method
dbListObjects,KineticaConnection-method
dbListResults,KineticaConnection-method
dbListTables,KineticaConnection-method
dbQuoteIdentifier
dbQuoteLiteral,KineticaConnection-method
dbQuoteString
dbReadTable,KineticaConnection,character-method
dbRemoveTable,KineticaConnection,character-method
dbSendQuery,KineticaConnection,character-method
dbSendStatement,KineticaConnection,character-method
dbUnloadDriver,KineticaDriver-method
dbUnquoteIdentifier
dbWriteTable,KineticaConnection,character-method
KineticaObject-class
show,KineticaDriver-method
show,SQL-method
SQL
sqlCreateTable,KineticaConnection-method
sqlData
summary
summary.KineticaObject-method

 $\label{local_dbappendTable} db \texttt{AppendTable}, \texttt{KineticaConnection-method} \\ \textit{dbAppendTable}()$

Description

Appends rows to an existing table

Usage

```
## S4 method for signature 'KineticaConnection'
dbAppendTable(conn, name, value, ...,
  row.names = NULL)
```

conn an object of [KineticaConnection-class]

name character string for table name

value A data frame. Factors will be converted to character vectors.

Other arguments ommitted in generic signature row.names a flag with logical, character or NULL value

See Also

Other KineticaConnection methods: dbCreateTable, KineticaConnection-method, dbDataType, KineticaConnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method dbExistsTable, KineticaConnection, character-method, dbGetInfo, dbGetQuery, KineticaConnedbIsValid, KineticaConnection-method, dbListFields, KineticaConnection, character-method dbListObjects, KineticaConnection-method, dbListResults, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method dbRemoveTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbWriteTable, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

```
dbBind, KineticaResult-method dbBind() \label{eq:bBind}
```

Description

Binds the prepared statement to parameter values provided

Usage

```
## S4 method for signature 'KineticaResult'
dbBind(res, params, ...)
```

Arguments

res an object of [KineticaResult-class]
params A list of bindings, named or unnamed.
... Other parameters passed on to methods.

See Also

Other KineticaResult methods: dbClearResult, KineticaResult-method, dbColumnInfo, dbFetch, dbGetInfo, dbGetRowCount, KineticaResult-method, dbGetRowsAffected, KineticaResult-method, dbHasCompleted, KineticaResult-method, dbIsValid, show, KineticaDriver-method

Description

Method allows to check if provided Kinetica Connection configuration could be used to connect to Kinetica DB instance successfully. It takes all the arguments of dbConnect signature, creates a connection and destroys it upon exit.

Usage

```
## S4 method for signature 'KineticaDriver'
dbCanConnect(drv, host = NULL, port = NULL,
   url = NULL, username = NULL, password = NULL, timeout = NULL,
   ...)
```

Arguments

drv	Kinetica driver object
host	character string for Kinetica DB host address
port	integer value for Kinetica DB port
url	character string for Kinetica DB url (protocol + host + port)
username	character string for Kinetica DB username
password	character string for Kinetica DB password
timeout	integer value for Kinetica DB connection timeout
	Other arguments ommited in generic signature

See Also

Other KineticaDriver methods: dbConnect, KineticaDriver-method, dbDataType, KineticaDriver-method dbGetInfo, dbIsValid, dbListConnections, KineticaDriver-method, dbUnloadDriver, KineticaDriver-method show, KineticaDriver-method

Examples

```
## Not run:
# If you have a Kinetica DB instance running in local docker image,
# the minimum set of parameters to connect is url
dbCanConnect(Kinetica(), url = "http://localhost:9191")
# TRUE
# You can also use host and port combination
dbCanConnect(Kinetica(), host = "127.0.0.1", port = 9191)
# TRUE
# Remote instances would also require username and password.
dbCanConnect(Kinetica(), host = "127.0.0.1", port = 9191,
```

Description

Clears result, if exists, releasing memory in Connection results environment

Usage

```
## S4 method for signature 'KineticaResult'
dbClearResult(res, ...)
```

Arguments

res [KineticaResult-class]
... Other parameters passed on to methods.

See Also

Other KineticaResult methods: dbBind, KineticaResult-method, dbColumnInfo, dbFetch, dbGetInfo, dbGetRowCount, KineticaResult-method, dbGetRowsAffected, KineticaResult-method, dbHasCompleted, KineticaResult-method, dbIsValid, show, KineticaDriver-method

Description

Provides data.frame as a collection of column names and data types from the result set Provides data.frame as a collection of column names and data types from the result set

Usage

```
dbColumnInfo(res, ...)
## S4 method for signature 'KineticaResult'
dbColumnInfo(res, ...)
```

Arguments

res	An object inheriting from [KineticaResult-class]
	Other parameters passed on to methods.
res	An object inheriting from [KineticaResult-class]
	Other parameters passed on to methods.

See Also

Other KineticaResult methods: dbBind, KineticaResult-method, dbClearResult, KineticaResult-method, dbGetInfo, dbGetRowCount, KineticaResult-method, dbGetRowsAffected, KineticaResult-method, dbGetStatement, KineticaResult-method, dbHasCompleted, KineticaResult-method, dbIsValid, show, KineticaDriver-method

Other KineticaResult methods: dbBind, KineticaResult-method, dbClearResult, KineticaResult-method, dbFetch, dbGetInfo, dbGetRowCount, KineticaResult-method, dbGetRowsAffected, KineticaResult-method, dbHasCompleted, KineticaResult-method, dbIsValid, show, KineticaDriver-method

Description

Connect to a Kinetica DB going through the appropriate authentication procedure. You can have multiple connections open and connections can have multiple results attached. This function may be invoked repeatedly assigning its output to different objects. Authentication can be provided by using username/password variables. Use [dbCanConnect()] to check if a connection can be established.

Usage

```
## S4 method for signature 'KineticaDriver'
dbConnect(drv, host = NULL, port = NULL,
   url = NULL, username = NULL, password = NULL, timeout = NULL,
   ...)
```

drv	Kinetica driver object
host	character string for Kinetica DB host address
port	integer value for Kinetica DB port
url	character string for Kinetica DB url (protocol + host + port)
username	character string for Kinetica DB username
password	character string for Kinetica DB password
timeout	integer value for Kinetica DB connection timeout
	Other arguments ommitted in generic signature

See Also

Other KineticaDriver methods: dbCanConnect, KineticaDriver-method, dbDataType, KineticaDriver-method, dbDataType, KineticaDriver-method, dbUnloadDriver, KineticaDriver-method, dbUnloadDriver, KineticaDriver-method

Examples

```
## Not run:
 # If you jave a Kinetica DB instance running in local docker image,
 # the minimum set of parameters to connect is url
 dbConnect(Kinetica(), url = "http://localhost:9191")
 # You can also use host and port combination
 dbConnect(Kinetica(), host = "127.0.0.1", port = 9191)
 # Remote instances would also require username and password.
 dbConnect(Kinetica(), host = "127.0.0.1", port = 9191,
   username = "username", password = "Pa$$w0rd")
 con <- dbConnect(Kinetica(), url = "http://localhost:9191")</pre>
 show(con)
 # KineticaConnection
 # url: http://localhost:9191
 dbDisconnect(con)
 ## End(Not run)
dbCreateTable, KineticaConnection-method
```

Description

Creates a new table

Usage

```
## S4 method for signature 'KineticaConnection'
dbCreateTable(conn, name, fields, ...,
  row.names = NULL, temporary = FALSE)
```

dbCreateTable()

an object of [KineticaConnection-class]

name character string for table name

fields either a named character vector or a data frame

Other parameters passed on to methods.

row.names Must be 'NULL'.

temporary logical flag value whether table should be temporary

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbDataType, KineticadbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method dbExistsTable, KineticaConnection, character-method, dbGetInfo, dbGetQuery, KineticaConnedbIsValid, KineticaConnection-method, dbListFields, KineticaConnection, character-method dbListObjects, KineticaConnection-method, dbListResults, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method dbRemoveTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbWriteTable, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

Examples

Description

Redirect to [KineticaDriver-class] dbDataType method for data type mapping of provided object

Usage

```
## S4 method for signature 'KineticaConnection'
dbDataType(dbObj, obj, ...)
```

db0bj	an object of [KineticaConnection-class]
obj	generic object
	Other arguments ommited in generic signature

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, Kinet dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method dbExistsTable, KineticaConnection, character-method, dbGetInfo, dbGetQuery, KineticaConnedbIsValid, KineticaConnection-method, dbListFields, KineticaConnection, character-method dbListObjects, KineticaConnection-method, dbListResults, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method dbRemoveTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbWriteTable, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

```
dbDataType, KineticaDriver-method dbDataType() \\
```

Description

Takes an R object or literal and returns a matching SQLtype used when creating Kinetica DB table value to store it

Usage

```
## S4 method for signature 'KineticaDriver'
dbDataType(dbObj, obj, ...)
```

Arguments

db0bj	KineticaDriver object
obj	any data object or literal
	Other arguments ommited in generic signature

See Also

Other KineticaDriver methods: dbCanConnect, KineticaDriver-method, dbConnect, KineticaDriver-method, dbConnect, KineticaDriver-method, dbUnloadDriver, KineticaDriver-method, dbUnloadDriver, KineticaDriver-method

```
## Not run:
dbDataType(Kinetica(), 1L)
  "INTEGER"
dbDataType(Kinetica(), 1)
  "DOUBLE"
dbDataType(Kinetica(), "Test string")
  "VARCHAR(256)"
dbDataType(Kinetica(), Sys.Date())
  "DATE"
dbDataType(Kinetica(), list())
  "BINARY"

## End(Not run)
```

Description

Disconnects the current connection, releasing memory from all uncleared result objects

Usage

```
## S4 method for signature 'KineticaConnection'
dbDisconnect(conn, ...)
```

Arguments

an object of [KineticaConnection-class]Other parameters passed on to methods.

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbGetInfo, dbGetQuery, KineticaConnedbIsValid, KineticaConnection-method, dbListFields, KineticaConnection, character-method, dbListObjects, KineticaConnection-method, dbListResults, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendStatement, KineticaConnection, character-method, dbWriteTable, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

```
## Not run:
con <- dbConnect(Kinetica(), url = "http://localhost:9191")
dbDisconnect(con)
## End(Not run)</pre>
```

 $\label{lem:dbExecute} db \textit{Execute}, \textit{KineticaConnection, character-method} \\ \textit{dbExecute() Executes the statement, returning the number of affected} \\ \textit{rows or objects}$

Description

dbExecute() Executes the statement, returning the number of affected rows or objects

Usage

```
## S4 method for signature 'KineticaConnection, character'
dbExecute(conn, statement, ...,
   params = NULL)
```

Arguments

conn an object of [KineticaConnection-class]
statement character

.. Other parameters passed on to methods.

params a set of values

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExistsTable, KineticaConnection, character-method, dbGetInfo, dbGetQuery, KineticaConnedbIsValid, KineticaConnection-method, dbListFields, KineticaConnection, character-method, dbListObjects, KineticaConnection-method, dbListResults, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendStatement, KineticaConnection, character-method, dbWriteTable, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

```
## Not run:
con <- dbConnect(Kinetica(), url = "http://localhost:9191")
dbCreateTable(con, "tableA", data.frame(a = 1))
dbExistsTable(con, "tableA")
# TRUE
dbExecute(con, "DROP TABLE tableA")
# 1
dbDisconnect(con)
## End(Not run)</pre>
```

dbExistsTable, KineticaConnection, character-method $\begin{subarray}{c} dbExistsTable() \end{subarray}$

Description

Checks if the table exists. Provide either table name or collection name, not both Kinetica DB table names are unique, different collections don't allow tables with the same name.

Usage

```
## S4 method for signature 'KineticaConnection, character'
dbExistsTable(conn, name, ...)
```

Arguments

an object of [KineticaConnection-class]character string for table or collection nameOther parameters passed on to methods.

Value

logical

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbGetInfo, dbGetQuery, KineticaConnectiodbIsValid, KineticaConnection-method, dbListFields, KineticaConnection, character-method, dbListObjects, KineticaConnection-method, dbListResults, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendStatement, KineticaConnection, character-method, dbWriteTable, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

dbFetch 13

Examples

```
## Not run:
con <- dbConnect(Kinetica(), url = "http://localhost:9191")
dbCreateTable(con, "tableA", data.frame(a = 1))
dbExistsTable(con, "tableA")
# TRUE
dbExecute(con, "DROP TABLE tableA")
# 1
dbExistsTable(con, "tableA")
# FALSE
dbDisconnect(con)
## End(Not run)</pre>
```

dbFetch

dbFetch()

Description

Fetches the provided number of rows from Result. If n is not provided, returns all available records Fetches the provided number of rows from Result. If n is not provided, returns all available records

Usage

```
dbFetch(res, n = -1, ...)  
## S4 method for signature 'KineticaResult' dbFetch(res, n = -1, ...)
```

Arguments

res	An object inheriting from [KineticaResult-class]
n	maximum number of records to retrieve per fetch. Use ' $n = -1$ ' or ' $n = Inf$ ' to retrieve all pending records. Some implementations may recognize other special values.
	Other arguments passed on to methods.
res	An object inheriting from [KineticaResult-class]
n	maximum number of records to retrieve per fetch. Use ' $n = -1$ ' or ' $n = Inf$ ' to retrieve all pending records. Some implementations may recognize other special values.
	Other arguments passed on to methods.

14 dbGetInfo

See Also

Other KineticaResult methods: dbBind, KineticaResult-method, dbClearResult, KineticaResult-method dbColumnInfo, dbGetInfo, dbGetRowCount, KineticaResult-method, dbGetRowsAffected, KineticaBesult-method, dbHasCompleted, KineticaResult-method, dbIsValid, show, KineticaDriver-method

Other KineticaResult methods: dbBind, KineticaResult-method, dbClearResult, KineticaResult-method, dbColumnInfo, dbGetInfo, dbGetRowCount, KineticaResult-method, dbGetRowsAffected, KineticaBesult-method, dbHasCompleted, KineticaResult-method, dbIsValid, show, KineticaDriver-method

dbGetInfo

dbGetInfo()

Description

Generic dbGetInfo() implementation.

Retrieves brief KineticaDriver description: dbname, driver version, client version, max number of connections (NA stands for unlimited)

Basic properties of KineticaConnection object provides DB version, url, host, port and username of the current connection

Provides basic info on KineticaResult object

Usage

```
dbGetInfo(dbObj, ...)
## S4 method for signature 'KineticaDriver'
dbGetInfo(dbObj, ...)
## S4 method for signature 'KineticaConnection'
dbGetInfo(dbObj, ...)
## S4 method for signature 'KineticaResult'
dbGetInfo(dbObj, ...)
```

Arguments

db0bj	An object inheriting from [KineticaObject-class]
	Other arguments to methods.
db0bj	an object derived of [KineticaDriver-class] type
	Other arguments ommitted in generic signature
db0bj	object [KineticaConnection-class]
	Other arguments ommitted in generic signature
db0bj	[KineticaResult-class]
• • •	Other parameters passed on to methods.

dbGetInfo 15

Value

a named list

See Also

Other KineticaDriver methods: dbCanConnect, KineticaDriver-method, dbConnect, KineticaDriver-method, dbDataType, KineticaDriver-method, dbIsValid, dbListConnections, KineticaDriver-method, dbUnloadDriver, KineticaDriver-method, show, KineticaDriver-method

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbIsValid, KineticaConnection-method, dbListFields, KineticaConnection, character-method, dbListObjects, KineticaConnection-method, dbListResults, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbRemoveTable, KineticaConnection, character-method, dbSendStatement, KineticaConnection, dbWriteTable, KineticaConnection, character-method, dbSendStatement, KineticaConnection, dbWriteTable, KineticaConnection, character-method, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

Other KineticaResult methods: dbBind, KineticaResult-method, dbClearResult, KineticaResult-method dbColumnInfo, dbFetch, dbGetRowCount, KineticaResult-method, dbGetRowsAffected, KineticaResult-method, dbGetStatement, KineticaResult-method, dbHasCompleted, KineticaResult-method, dbIsValid, show, KineticaDriver-method

Examples

```
drv <- Kinetica()</pre>
dbGetInfo(drv)
# name
# "KineticaDriver"
# dbname
# "Kinetica"
# driver.version
  "7.0.0.0"
# client.version
# "7.0.0.0"
# max.connections
# NA
## Not run:
con <- dbConnect(d, url = "http://localhost:9191")</pre>
# db.version
# "7.0.0.0"
# dbname
# "Kinetica"
# url
# "http://localhost:9191"
# host
# "localhost"
# port
```

Description

Executes the Query and returns the resulting data.frame of n rows (or less) When n is not provided, returns all rows available

Usage

```
## S4 method for signature 'KineticaConnection, character'
dbGetQuery(conn, statement,
    n = -1, ...)
```

Arguments

conn A [KineticaConnection-class] object
statement a character string containing SQL.

n Number of rows to fetch, default -1
... Other parameters passed on to methods.

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, charadbGetInfo, dbIsValid, KineticaConnection-method, dbListFields, KineticaConnection, charadbListObjects, KineticaConnection-method, dbListResults, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendStatement, KineticaConnection, character-method, dbWriteTable, KineticaConnection

show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

Examples

```
## Not run:
con <- dbConnect(Kinetica(), url = "http://localhost:9191")
dbWriteTable(con, "tableA", data.frame(a = 1:40))
dbExistsTable(con, "tableA")
# TRUE</pre>
```

```
ds <- dbGetQuery(con, "tableA", 3)
show(ds)
         a
1    1
2    2
3    3
dbRemoveTable(con, "tableA")
dbDisconnect(con)
## End(Not run)</pre>
```

Description

Returns the number of rows in the returned data set

Usage

```
## S4 method for signature 'KineticaResult'
dbGetRowCount(res, ...)
```

Arguments

res KineticaResult-class
... Other parameters passed on to methods.

See Also

Other KineticaResult methods: dbBind, KineticaResult-method, dbClearResult, KineticaResult-method dbColumnInfo, dbFetch, dbGetInfo, dbGetRowsAffected, KineticaResult-method, dbGetStatement, KineticaResult-method, dbHasCompleted, KineticaResult-method, dbIsValid, show, KineticaDriver-method

```
dbGetRowsAffected, KineticaResult-method dbGetRowsAffected()
```

Description

Returns the number of rows affected by the executed SQL statement

Usage

```
## S4 method for signature 'KineticaResult'
dbGetRowsAffected(res, ...)
```

Arguments

res an object of [KineticaResult-class]
... Other parameters passed on to methods.

See Also

Other KineticaResult methods: dbBind, KineticaResult-method, dbClearResult, KineticaResult-method, dbColumnInfo, dbFetch, dbGetInfo, dbGetRowCount, KineticaResult-method, dbGetStatement, KineticaResult-method, dbHasCompleted, KineticaResult-method, dbIsValid, show, KineticaDriver-method

Description

Returns the SQL statement executed to get this result set

Usage

```
## S4 method for signature 'KineticaResult'
dbGetStatement(res, ...)
```

Arguments

res an object of [KineticaResult-class]
... Other parameters passed on to methods.

See Also

Other KineticaResult methods: dbBind, KineticaResult-method, dbClearResult, KineticaResult-method, dbColumnInfo, dbFetch, dbGetInfo, dbGetRowCount, KineticaResult-method, dbGetRowsAffected, KineticaResult-method, dbHasCompleted, KineticaResult-method, dbIsValid, show, KineticaDriver-method

Description

Returns a logical value whether the result has completed

Usage

```
## S4 method for signature 'KineticaResult'
dbHasCompleted(res, ...)
```

Arguments

```
res an object of [KineticaResult-class]
... Other parameters passed on to methods.
```

See Also

Other KineticaResult methods: dbBind, KineticaResult-method, dbClearResult, KineticaResult-method, dbColumnInfo, dbFetch, dbGetInfo, dbGetRowCount, KineticaResult-method, dbGetRowsAffected, KineticaResult-method, dbGetStatement, KineticaResult-method, dbIsValid, show, KineticaDriver-method

```
dbIsReadOnly()
```

Description

Generic dbIsReadOnly() implementation.

Usage

```
dbIsReadOnly(dbObj, ...)
```

Arguments

```
dbObj An object inheriting from [KineticaObject-class]
... Other arguments to methods.
```

Value

logical

20 dbIsValid

dbIsValid \(dbIsValid()\)

Description

Generic dbIsValid() implementation.

Checks if the provided Driver object is valid

Checks if the KineticaResult object has been cleared

Usage

```
dbIsValid(db0bj, ...)
## S4 method for signature 'KineticaDriver'
dbIsValid(db0bj, ...)
## S4 method for signature 'KineticaResult'
dbIsValid(db0bj, ...)
```

Arguments

db0bj	An object inheriting from [KineticaObject-class], i.e. [KineticaDriver-class], [KineticaConnection-class], or a [KineticaResult-class]
	Other arguments to methods.
dbObj	an object of [KineticaDriver-class] type
	Other arguments ommitted in generic signature
dbObj	[KineticaResult-class]
	Other parameters passed on to methods.

Value

logical

See Also

Other KineticaDriver methods: dbCanConnect, KineticaDriver-method, dbConnect, KineticaDriver-method, dbDataType, KineticaDriver-method, dbGetInfo, dbListConnections, KineticaDriver-method, dbUnloadDriver, KineticaDriver-method, show, KineticaDriver-method

Other KineticaResult methods: dbBind, KineticaResult-method, dbClearResult, KineticaResult-method, dbColumnInfo, dbFetch, dbGetInfo, dbGetRowCount, KineticaResult-method, dbGetRowsAffected, KineticaResult-method, dbGetStatement, KineticaResult-method, dbHasCompleted, KineticaResult-method, show, KineticaDriver-method

Description

Checks if the connection is valid RKinetica Connection is a configuration of url, username and password to establish connection to Kinetica DB, configuration does not go stale when memory objects get swapped to file. Thus RKinetica accepts stale connections as valid, and allows multiple results per connection.

Usage

```
## S4 method for signature 'KineticaConnection'
dbIsValid(dbObj, ...)
```

Arguments

```
dbObj A [KineticaConnection-class] object
... Other arguments ommitted in generic signature
```

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, Kinet dbDataType, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbListFields, KineticaConnection, dbListObjects, KineticaConnection-method, dbListResults, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbWriteTable, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

Examples

```
## Not run:
con <- dbConnect(Kinetica(), url = "http://localhost:9191")
dbIsValid(con)
# TRUE
dbDisconnect(con)</pre>
```

```
## End(Not run)

dbListConnections, KineticaDriver-method

dbListConnections()
```

Description

Lists all active connections in KineticaDriver's connection pool invoking show() on KineticaConnection objects

Usage

```
## S4 method for signature 'KineticaDriver'
dbListConnections(drv, ...)
```

Arguments

drv an object of [KineticaDriver-class] type... Other arguments ommitted in generic signature

See Also

Other KineticaDriver methods: dbCanConnect, KineticaDriver-method, dbConnect, KineticaDriver-method, dbDataType, KineticaDriver-method, dbGetInfo, dbIsValid, dbUnloadDriver, KineticaDriver-method show, KineticaDriver-method

```
dbListFields, KineticaConnection, character-method dbListFields()
```

Description

Lists field names of a given table

Usage

```
## S4 method for signature 'KineticaConnection, character'
dbListFields(conn, name, ...)
```

Arguments

conn	A [KineticaConnection-class] object
name	a character string for table name
	Other parameters passed on to methods.

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, KineticaConnection-method, dbDataType, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbIsValid, KineticaConnection dbListObjects, KineticaConnection-method, dbListResults, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbWriteTable, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

Examples

Description

Lists database Objects available to the user, including tables, views and collections

Usage

```
## S4 method for signature 'KineticaConnection'
dbListObjects(conn, prefix = NULL, ...)
```

Arguments

```
conn A [KineticaConnection-class] object
prefix character
... Other parameters passed on to methods.
```

Value

data.frame

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbIsValid, KineticaConnection dbListFields, KineticaConnection, character-method, dbListResults, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbWriteTable, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

```
dbListResults, KineticaConnection-method 
 dbListResults()
```

Description

Lists all active results of the current connection

Usage

```
## S4 method for signature 'KineticaConnection'
dbListResults(conn, ...)
```

Arguments

an object of [KineticaConnection-class]Other parameters passed on to methods.

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbIsValid, KineticaConnection dbListFields, KineticaConnection, character-method, dbListObjects, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbWriteTable, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

Description

Lists all database tables available to the user

Usage

```
## S4 method for signature 'KineticaConnection'
dbListTables(conn, name, ...)
```

Arguments

conn an object of [KineticaConnection-class]

name character

. . . Other arguments ommitted in generic signature

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbIsValid, KineticaConnection dbListFields, KineticaConnection, character-method, dbListObjects, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbReadTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbWriteTable, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

dbQuoteIdentifier dbQuoteIdentifier()

Description

Escapes the provided character vector as SQL indetifier.

Usage

```
dbQuoteIdentifier(conn, x, ...)
## S4 method for signature 'KineticaConnection, ANY'
dbQuoteIdentifier(conn, x, ...)
## S4 method for signature 'KineticaConnection, character'
dbQuoteIdentifier(conn, x, ...)
## S4 method for signature 'KineticaConnection, SQL'
dbQuoteIdentifier(conn, x, ...)
```

Arguments

conn	object [KineticaConnection-class]
X	a character vector or SQL object
	Other arguments passed on to methods.
conn	object [KineticaConnection-class]
X	a character vector or SQL object
	Other arguments passed on to methods.
conn	object [KineticaConnection-class]
X	a character vector or SQL object
	Other arguments passed on to methods.

```
dbQuoteLiteral, KineticaConnection-method dbQuoteLiteral() \\
```

Description

Escapes a literal if nesessary.

Usage

```
## S4 method for signature 'KineticaConnection' dbQuoteLiteral(conn, x, ...)
```

Arguments

conn	A subclass of [KineticaConnection-class]
X	A vector to quote as string.
	Other arguments passed on to methods.

dbQuoteString 27

dbQuoteString dbQ

dbQuoteString()

Description

Excapes a character (string) value.

Usage

```
dbQuoteString(conn, x, ...)
## S4 method for signature 'KineticaConnection, ANY'
dbQuoteString(conn, x, ...)
## S4 method for signature 'KineticaConnection, character'
dbQuoteString(conn, x, ...)
## S4 method for signature 'KineticaConnection, SQL'
dbQuoteString(conn, x, ...)
```

Arguments

A subclass of [KineticaConnection-class], representing an active connection to an DBMS.

A character vector to quote as string.

Other arguments passed on to methods.

```
\label{local_connection} db \textit{ReadTable}, \textit{KineticaConnection}, \textit{character-method} \\ \textit{dbReadTable}()
```

Description

Reads the data of a given table into data frame object, clearing the KineticaResult object upon exit

Usage

```
## S4 method for signature 'KineticaConnection, character'
dbReadTable(conn, name, ...,
  row.names = FALSE, check.names)
```

conn an object of [KineticaConnection-class]

name a character string table name

... Other arguments ommited in generic signature row.names a logical flag to create extra row_names column

check names a logical flag to check names

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, Kinet dbDataType, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbIsValid, KineticaConnection dbListFields, KineticaConnection, character-method, dbListObjects, KineticaConnection-method, dbListResults, KineticaConnection-method, dbListTables, KineticaConnection-method, dbRemoveTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, character-method, dbWriteTable, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

```
dbRemoveTable, KineticaConnection, character-method \begin{subarray}{c} dbRemoveTable() \end{subarray}
```

Description

Drops the table with the given name if one exists

Usage

```
## S4 method for signature 'KineticaConnection, character'
dbRemoveTable(conn, name, ...)
```

Arguments

conn an object of [KineticaConnection-class]

name character string for table name

. . . Other arguments ommitted in generic signature

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, Kinet dbDataType, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbIsValid, KineticaConnection dbListFields, KineticaConnection, character-method, dbListObjects, KineticaConnection-method, dbLis

dbListResults, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbSendQuery, KineticaConnection, charabsendStatement, KineticaConnection, character-method, dbWriteTable, KineticaConnectionshow, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

Description

Executes SQL query and returns a result set. The returned result object should be read with dbFetch(result) and then cleared with dbClearResult(result)

Usage

```
## S4 method for signature 'KineticaConnection, character'
dbSendQuery(conn, statement, ...)
```

Arguments

conn object [KineticaConnection-class]

statement character

. . . Other arguments ommitted in generic signature

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbIsValid, KineticaConnection dbGetInfo, dbGetQuery, KineticaConnection, character-method, dbIsValid, KineticaConnection-method, dbListFields, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbRemoveTable, KineticaConnection, character-method, dbRemoveTable, KineticaConnection, character-method, dbWriteTable, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

Description

Executes SQL statement that does not return a result set

Usage

```
## S4 method for signature 'KineticaConnection, character'
dbSendStatement(conn, statement,
   params = NULL, ...)
```

Arguments

conn object [KineticaConnection-class]

statement character

params a list of query named parameters

... Other arguments ommitted in generic signature

See Also

```
[dbSendQuery()] [dbGetQuery()] [dbExecute()]
```

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbIsValid, KineticaConnection, character-method, dbIsValid, KineticaConnection-method, dbListFields, KineticaConnection, character-method, dbListObjects, KineticaConnection-method, dbListResults, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbRemoveTable, KineticaConnection, character-method, dbWriteTable, KineticaConnection, character-method, dbWriteTable,

Description

Unload RKinetica Driver, releasing memory from Driver connections and embedded results

dbUnquoteIdentifier 31

Usage

```
## S4 method for signature 'KineticaDriver'
dbUnloadDriver(drv, ...)
```

Arguments

drv Kinetica driver object
... Other arguments ommitted in generic signature

See Also

Other KineticaDriver methods: dbCanConnect, KineticaDriver-method, dbConnect, KineticaDriver-method, dbDataType, KineticaDriver-method, dbGetInfo, dbIsValid, dbListConnections, KineticaDrivershow, KineticaDriver-method

Description

Unescapes the DB identifier.

Unescapes the DB identifier.

Usage

```
dbUnquoteIdentifier(conn, x, ...)
## S4 method for signature 'KineticaConnection'
dbUnquoteIdentifier(conn, x, ...)
```

Arguments

con	ın	object [KineticaConnection-class]
Х		a character vector or SQL object
		Other arguments passed on to methods.
con	ın	A subclass of [KineticaConnection-class], representing an active connection to an DBMS.
Х		An [SQL] object or character vector to unquote.
		Other arguments passed on to methods.

Description

Writes a dataset into Kinetica DB, appending, creating or overwriting a table as indicated by flags.

Usage

```
## S4 method for signature 'KineticaConnection, character'
dbWriteTable(conn, name, value,
    ..., row.names = FALSE, overwrite = FALSE, append = FALSE,
    field.types = NULL, temporary = FALSE)
```

Arguments

conn	an object of [KineticaConnection-class]
name	character string for table name
value	a [data.frame] (or object coercible to data.frame)
	Other arguments ommited in generic signature
row.names	a logical flag, NULL or chaacter value to create extra row_names column
overwrite	a logical flag to overwrite existing table with new columns and values
append	a logical flag to preserve existing data and append new records
field.types	a named character vector of value field names and types
temporary	a logical flag to create table as temporary storage

See Also

```
[dbCreateTable()] [dbAppendTable()] [dbRemoveTable()]
```

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, Kinet dbDataType, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbIsValid, KineticaConnection dbGetInfo, dbGetQuery, KineticaConnection, character-method, dbIsValid, KineticaConnection-method, dbListFields, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbRemoveTable, KineticaConnection, character-method, dbSendStatement, KineticaConnection, show, KineticaDriver-method, sqlCreateTable, KineticaConnection-method

KineticaObject-class 33

Examples

Description

Base DB object extending [DBI::DBIObject].

```
show, KineticaDriver-method show()
```

Description

RKinetica Driver short printout string

Minimal KineticaConnection string representation Provides url of the Kinetica DB instance Brief string printout of [KineticaResult-class] object properties

Usage

```
## S4 method for signature 'KineticaDriver'
show(object)

## S4 method for signature 'KineticaConnection'
show(object)

## S4 method for signature 'KineticaResult'
show(object)
```

Arguments

```
object Kinetica Driver object
object [KineticaConnection-class]
object [KineticaResult-class]
```

34 show,SQL-method

See Also

Other KineticaDriver methods: dbCanConnect, KineticaDriver-method, dbConnect, KineticaDriver-method, dbDataType, KineticaDriver-method, dbGetInfo, dbIsValid, dbListConnections, KineticaDriver dbUnloadDriver, KineticaDriver-method

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbIsValid, KineticaConnection, dbGetInfo, dbGetQuery, KineticaConnection, character-method, dbIsValid, KineticaConnection-method, dbListFields, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbRemoveTable, KineticaConnection, character-method, dbSendStatement, KineticaConnection, dbWriteTable, KineticaConnection, character-method, dbSendStatement, KineticaConnection, dbWriteTable, KineticaConnection, character-method, sqlCreateTable, KineticaConnection-

Other KineticaResult methods: dbBind, KineticaResult-method, dbClearResult, KineticaResult-meth dbColumnInfo, dbFetch, dbGetInfo, dbGetRowCount, KineticaResult-method, dbGetRowsAffected, KineticaResult-method, dbGetStatement, KineticaResult-method, dbHasCompleted, KineticaResult-method, dbIsValid

Examples

```
## Not run:
drv <- Kinetica()
show(drv)
# KineticaDriver 7.0.0.0

## End(Not run)
## Not run:
con <- dbConnect(d, url = "http://localhost:9191")
show(con)
<KineticaConnection>
url: http://localhost:9191

## End(Not run)

show, SQL-method show()
```

Description

prints escaped SQL values.

Usage

```
## S4 method for signature 'SQL'
show(object)
```

SQL 35

Arguments

object SQL object

SQL()

Description

Creates an escaped SQL representation of provided named character vector.

Usage

```
SQL(x, ..., names = NULL)
```

Arguments

x A character vector to label as being escaped SQL.

. . . Other arguments passed on to methods. Not otherwise used.

names Names for the returned object, must have the same length as 'x'.

Value

An object of class 'SQL'.

```
{\it sqlCreateTable, KineticaConnection-method} \\ {\it sqlCreateTable()}
```

Description

Customised version of the generic sqlCreateTable method (Kinetica DB uses TEMP keyword instead of TEMPORARY)

Usage

```
## S4 method for signature 'KineticaConnection'
sqlCreateTable(con, table, fields,
  row.names = NA, temporary = FALSE, ...)
```

36 sqlData

Arguments

A database connection.

Name of the table. Escaped with [dbQuoteIdentifier()].

Either a character vector or a data frame.

A named character vector: Names are column names, values are types. Names are escaped with [dbQuoteIdentifier()]. Field types are unescaped.

A data frame: field types are generated using [dbDataType()].

row.names a flag with logical, character or NULL value

temporary logical TRUE/FALSE for temporary/permanent table created

Other parameters passed on to methods.

See Also

Other KineticaConnection methods: dbAppendTable, KineticaConnection-method, dbCreateTable, KineticaConnection-method, dbDisconnect, KineticaConnection-method, dbExecute, KineticaConnection, character-method, dbExistsTable, KineticaConnection, character-method, dbIsValid, KineticaConnection dbGetInfo, dbGetQuery, KineticaConnection, character-method, dbIsValid, KineticaConnection-method, dbListFields, KineticaConnection-method, dbListTables, KineticaConnection-method, dbReadTable, KineticaConnection, character-method, dbRemoveTable, KineticaConnection, character-method, dbSendStatement, KineticaConnection, dbWriteTable, KineticaConnection, character-method, dbSendStatement, KineticaConnection, dbWriteTable, KineticaConnection, character-method, show, KineticaDriver-method

sqlData sqlData()

Description

Escapes and encodes SQL data. Escapes and encodes SQL data.

Usage

```
sqlData(con, value, row.names = NA, ...)
## S4 method for signature 'KineticaConnection'
sqlData(con, value, row.names = NA, ...)
```

Arguments

con A database connection, object of [KineticaConnection-class]
value A data frame

row.names a flag with logical, character or NULL value
... Other parameters passed on to methods.

summary 37

```
con A database connection, object of [KineticaConnection-class]
row.names a flag with logical, character or NULL value

Other parameters passed on to methods.

value A data frame
```

Examples

```
## Not run:
con <- dbConnect(RSQLite::SQLite(), ":memory:")

sqlData(con, head(iris))
sqlData(con, head(mtcars))

dbDisconnect(con)

## End(Not run)

summary

summary()</pre>
```

Description

Generic summary() implementation.

Usage

Description

Implementation of summary() for KineticaObject signature.

Usage

```
## S4 method for signature 'KineticaObject'
summary(object, ...)
```

Arguments

```
object An object inheriting from [KineticaObject-class]
... Other arguments to methods.
```