Package 'SelfControlledCaseSeries'

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Type Package

Title Self-Controlled Case Series

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Description SelfControlledCaseSeries is an R package for performing Self-Controlled Case Series (SCCS) analyses in an observational database in the OMOP Common Data Model

Depends R (>= 3.2.2),
Cyclops (>= 1.2.0),
DatabaseConnector (>= 1.3.0)

Imports RJDBC,
SqlRender (>= 1.1.1),
bit,
ff,
ffbase (>= 0.12.1),
Rcpp (>= 0.11.2),
OhdsiRTools,
splines,
ggplot2

Suggests testthat

License Apache License 2.0

LinkingTo Rcpp

NeedsCompilation yes

R topics documented:

createSccsEraData *Create SCCS era data*

Description

Create SCCS era data

Usage

```
createSccsEraData(sccsData, exposureId, outcomeId = NULL, naivePeriod = 0,
  firstOutcomeOnly = FALSE, includeExposureOfInterest = TRUE,
  exposureOfInterestSettings = createCovariateSettings(stratifyByID = TRUE,
  start = 0, end = 0, addExposedDaysToEnd = TRUE, splitPoints = c()),
  includePreExposureOfInterest = FALSE,
  preExposureOfInterestSetting = createCovariateSettings(stratifyByID = TRUE,
  mergeErasBeforeSplit = FALSE, start = -30, end = -1, addExposedDaysToEnd =
  FALSE, splitPoints = c()), covariateSettingsList = list(),
  includeAgeEffect = FALSE, ageKnots = 5, includeSeasonality = FALSE,
  seasonKnots = 5, eventDependentObservation = FALSE)
```

Arguments

sccsData	An object of type sccsData as created using the getDbSccsData function.
naivePeriod	The number of days at the start of a patient's observation period that should not be included in the risk calculations. Note that the naive period can be used to determine current covariate status right after the naive period, and whether an outcome is the first one.
firstOutcomeOnly	Whether only the first occurrence of an outcome should be considered.
covariateStart	Start day relative to the start of a covariate when the covariate should be considered in the risk profile.
covariatePersistencePeriod	Number of days after the end of the covariate when the risk is assumed to stop.
excludeConceptIds	Concept IDs that should be excluded from the list of covariates.

Details

This function chops patient time into periods during which all covariates remain constant. The output details these periods, their durations, and a sparse representation of the covariate values.

Value

An object of type sccsEraData.

getDbSccsData *Todo: add title*

Description

Todo: add description

Usage

```
getDbSccsData(connectionDetails, cdmDatabaseSchema,
  oracleTempSchema = cdmDatabaseSchema,
  outcomeDatabaseSchema = cdmDatabaseSchema,
  outcomeTable = "condition_occurrence", outcomeIds,
  outcomeConditionTypeConceptIds = c(),
  exposureDatabaseSchema = cdmDatabaseSchema, exposureTable = "drug_era",
  exposureIds = c(), excludeConceptIds = c(), drugEraCovariates = FALSE,
  conditionEraCovariates = FALSE, procedureCovariates = FALSE,
  visitCovariates = FALSE, observationCovariates = FALSE,
  measurementCovariates = FALSE, deleteCovariatesSmallCount = 100,
  cdmVersion = "4")
```

Arguments

connectionDetails
: An R object of type ConnectionDetails created using the function createConnectionDetails in the DatabaseConnector package.

cdmDatabaseSchema

oracleTempSchema

outcomeDatabaseSchema

outcomeTable

outcomeIds

outcomeConditionTypeConceptIds

exposureDatabaseSchema

exposureTable

exposureIds

excludeConceptIds

drugEraCovariates

conditionEraCovariates

procedureCovariates

visitCovariates

`observationCovariates`

`measurementCovariates`

`deleteCovariatesSmallCount`

`cdmVersion`

Details

Todo: add details

`loadSccsData` *Load the SCCS data from a folder*

Description

`loadSccsData` loads an object of type sccsData from a folder in the file system.

Usage

```
loadSccsData(folder, readOnly = TRUE)
```

Arguments

`folder`	The name of the folder containing the data.
`readOnly`	If true, the data is opened read only.

Details

The data will be written to a set of files in the folder specified by the user.

Value

An object of class cohortData.

Examples

```
# todo
```

loadSccsEraData *Load the SCCS era data from a folder*

Description

`loadSccsEraData` loads an object of type sccsEraData from a folder in the file system.

Usage

```
loadSccsEraData(folder, readOnly = FALSE)
```

Arguments

`readOnly`	If true, the data is opened read only.
`file`	The name of the folder containing the data.

Details

The data will be written to a set of files in the folder specified by the user.

Value

An object of class sccsEraData

saveSccsData *Save the SCCS data to folder*

Description

`sccsData` saves an object of type sccsData to folder.

Usage

```
saveSccsData(sccsData, folder)
```

Arguments

`sccsData`	An object of type `sccsData` as generated using `getDbSccsData`.
`folder`	The name of the folder where the data will be written. The folder should not yet exist.

Details

The data will be written to a set of files in the specified folder.

Examples

```
# todo
```

saveSccsEraData *Save the SCCS era data to folder*

Description

saveSccsEraData saves an object of type sccsEraData to folder.

Usage

```
saveSccsEraData(sccsEraData, folder)
```

Arguments

sccsEraData	An object of type sccsEraData as generated using createSccsEraData.
folder	The name of the folder where the data will be written. The folder should not yet exist.

Details

The data will be written to a set of files in the specified folder.

SelfControlledCaseSeries *SelfControlledCaseSeries*

Description

SelfControlledCaseSeries

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