# Types of attributes and methods of the class TransactionSet

### **Notation**

- *T* denotes the number of transactions.
- *N* denotes the number of names associated with the transactions.
- + denotes public attributes and methods (i.e. exported attributes and methods).
- denotes private attributes and methods (i.e. non-exported attributes and methods).

## **Attributes**

+ data: list(named list)

#### \$transaction1

name 1	vector
name 2	vector
name N	vector

#### \$transaction2

name 1	vector
name 2	vector
•••	
name N	vector

#### \$transactionT

name 1	vector
name 2	vector
•••	
name N	vector

+ names: vector(character)+ item\_key: character+ year\_key: character

## Methods

+ transaction.set(data: see attribute data, item\_key: see attribute item\_key,

year\_key: see attribute year\_key, names: see attribute names): TransactionSet

+ as(Class: "data.frame"): data.frame

+ as(Class: "transactions"): transactions (class from the package arules)

+ subset(indexes: vector(numeric) or vector(logical), keep\_names: logical): TransactionSet

+ reorder(permutation: vector(numeric) or vector(character)): TransactionSet

+ export(...)

+ get\_all\_items(): vector

+ get\_itemsets(): list(vector)

- + **get\_items\_from\_info(info**: named list, **presence**: character, **additional**: vector(character)): vector or named list
- + **get\_info\_from\_items(items**: vector, **info\_names**: vector(character), **presence**: character): vector or named list
- + get\_complex\_trx(): TransactionSet
- + get\_simple\_trx(): TransactionSet
- + **get\_trx\_from\_items(items**: vector, **presence**: character**)**: TransactionSet
- + get\_trx\_from\_info(info: named list, presence: character): TransactionSet
- + complexity\_ratio(items: vector): named vector(numeric)
- + complexity\_index(items: vector): named vector(numeric)
- + co\_occurrence\_matrix(items: vector): named matrix(numeric)
- + itemset\_chart(identifiers: character, length\_one: logical, jitter: logical, under: character,

over: character, title: character, path: character, name: character): TransactionSet

- prepare\_itemset\_chart(identifiers: character, length\_one: logical, under: character,

order: character): list

[["transactions"]]: TransactionSet

[["itemsets"]]: list(vector)

[["items"]]: data.frame

item	label
character or numeric	character or numeric

[["under"]]: vector(character)
[["over"]]: vector(character)

- + co\_occurrence\_chart(items: vector, min\_occ: numeric, max\_occ: numeric, vertex\_size: numeric, vertex\_alpha: numeric, vertex\_margin: numeric, label\_size: numeric, label\_margin: numeric, edge\_looseness: numeric, edge\_alpha: numeric, palette: character or numeric, palette\_direction: numeric): ggplot2 graph
- has\_temporal\_data(): logical
- get\_items(items: character or vector): vector

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