

# 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**(**indices**: vector(numeric) or vector(logical), **keep\_names**: logical): TransactionSet

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

+ **export**(...)

+ **get\_all\_items**(): vector

+ **get\_all\_years**(): 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**(**as\_indices**: logical): TransactionSet or named vector(integer)
- + **get\_simple\_trx**(**as\_indices**: logical): TransactionSet or named vector(integer)
- + **get\_trx\_from\_items**(**items**: vector, **presence**: character, **as\_indices**: logical): TransactionSet or  
named vector(integer)
- + **get\_trx\_from\_info**(**info**: named list, **presence**: character, **as\_indices**: logical): TransactionSet or  
named vector(integer)
  
- + **complexity\_ratio**(**items**: vector): named vector(numeric)
- + **complexity\_index**(**items**: vector): named vector(integer)
- + **co\_occurrence\_matrix**(**items**: vector, **proportions**: logical): named matrix(integer) or 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, **co\_occ**: matrix(numeric), **proportions**: logical,  
**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