

# Types of attributes and methods of the class ObservationSet

## Notation

- $O$  denotes the number of observations.
- $N$  denotes the number of names associated with the observations.
- + denotes public attributes and methods (i.e. exported attributes and methods).
- – denotes private attributes and methods (i.e. attributes and methods not exported).

## Attributes

+ **data**: list(named list)

\$observation1

name 1	vector
name 2	vector
...	...
name $N$	vector

\$observation2

name 1	vector
name 2	vector
...	...
name $N$	vector

...

\$observationO

name 1	vector
name 2	vector
...	...
name $N$	vector

+ **names**: vector(character)

+ **item\_key**: character

+ **year\_key**: character

## Methods

+ **observation.set**(**data**: see attribute **data**, **item\_key**: see attribute **item\_key**,  
**year\_key**: see attribute **year\_key**, **names**: see attribute **names**): ObservationSet

+ **subset**(**x**: ObservationSet, **indexes**: vector(numeric) or vector(logical), **keep\_names**: logical):  
ObservationSet

+ **reorder**(**x**: ObservationSet, **permutation**: vector(numeric) or vector(character)): ObservationSet

+ **as**(**to**: "data.frame"): data.frame

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

+ **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\_obs**(): ObservationSet
- + **get\_simple\_obs**(): ObservationSet
- + **get\_obs\_from\_items**(items: vector, **presence**: character): ObservationSet
- + **get\_obs\_from\_info**(info: named list, **presence**: character): ObservationSet
  
- + **complexity\_ratio**(items: vector): named vector(numeric)
- + **complexity\_items**(items: vector): named vector(numeric)
- + **co\_occurrence\_matrix**(items: vector): named matrix(numeric)
  
- + **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\_tension**: numeric, **edge\_alpha**: numeric,  
**palette**: character or numeric, **palette\_direction**: numeric): ggplot2 graph
  
- **has\_temporal\_data**(): logical
- **get\_items**(items: character or vector): vector