

Package ‘rollup’

August 29, 2024

Title A Tidy Grouping Set Aggregation

Version 0.1.0

Description A Tidy implementation of 'grouping sets', 'rollup' and 'cube' - extensions of the 'group_by' clause that allow for computing multiple 'group_by' clauses in a single statement. For more detailed information on these functions, please refer to ``Enhanced Aggregation, Cube, Grouping and Rollup'' <<https://wiki.apache.org/confluence/display/Hive/Enhanced+Aggregation%2C+Cube%2C+Grouping+and+Rollup>>.

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Encoding UTF-8

RoxygenNote 7.3.0

Depends R (>= 2.10), dplyr, tidyr

LazyData true

Suggests knitr, rmarkdown

VignetteBuilder knitr

Imports rlang, methods, utils, magrittr, sparklyr

URL <https://juyoungahn.github.io/rollup/>

NeedsCompilation no

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Contents

grouped_df_list-class	2
grouping_sets	2
summarise	3
summarise,ANY-method	3
summarise,grouped_df_list-method	4
summarize	4

summarize,ANY-method	5
summarize,grouped_df_list-method	5
summarize_rollup	6
web_service_data	6
with_cube	7
with_rollup	7

Index	9
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grouped_df_list-class *grouped_df_list class definition*

Description

A class to represent a list of grouped data frames.

grouping_sets	<i>grouping_sets</i>
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Description

Compute total amounts at different group levels, producing multiple subtotals. With the 'grouping_sets' clause following 'group_by', you can aggregate multiple grouping variables in one operation. This reflects the 'GROUPING SETS' operations in 'SQL'.

Usage

```
grouping_sets(df, ...)
```

Arguments

df	dataframe or grouped df
...	grouping variables

Value

A list of 'grouped_df' class. each 'grouped_df' object has a different grouping level.

Examples

```
mtcars %>% group_by(vs, am) %>% grouping_sets("vs","am",c("vs","am"))
mtcars %>% group_by(vs, am) %>% with_rollup()
mtcars %>% group_by(vs, am) %>% with_cube()
```

summarise	<i>Generic summarise function</i>
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Description

Generic summarise function

Usage

```
summarise(object, ...)
```

Arguments

object	Object to be summarized.
...	Additional arguments.

Value

An object of the same class as `.data`. One grouping level will be dropped.

summarise, ANY-method	<i>Default method for summarise</i>
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Description

Default method for summarise

Usage

```
## S4 method for signature 'ANY'
summarise(object, ...)
```

Arguments

object	An object
...	Additional arguments.

Value

An object of the same class as `.data`. One grouping level will be dropped.

summarise, grouped_df_list-method

Method for summarise on grouped_df_list

Description

Method for summarise on grouped_df_list

Usage

```
## S4 method for signature 'grouped_df_list'
summarise(object, ...)
```

Arguments

object A grouped_df_list object.
 ... Additional arguments.

Value

An object of the same class as `.data`. One grouping level will be dropped.

summarize

Generic summarize function

Description

Generic summarize function

Usage

```
summarize(object, ...)
```

Arguments

object Object to be summarized.
 ... Additional arguments.

Value

An object of the same class as `.data`. One grouping level will be dropped.

summarize,ANY-method *Default method for summarize*

Description

Default method for summarize

Usage

```
## S4 method for signature 'ANY'  
summarize(object, ...)
```

Arguments

object An object.
... Additional arguments.

Value

An object of the same class as `.data`. One grouping level will be dropped.

summarize,grouped_df_list-method
Method for summarize on grouped_df_list

Description

Method for summarize on grouped_df_list

Usage

```
## S4 method for signature 'grouped_df_list'  
summarize(object, ...)
```

Arguments

object A grouped_df_list object.
... Additional arguments.

Value

An object of the same class as `.data`. One grouping level will be dropped.

summarize_rollup	<i>summarize_rollup</i>
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Description

'summarize_rollup' aggregates each 'grouped_df' in the 'grouped_df_list' class and return the unioned aggregated results.

Usage

```
summarize_rollup(df_list, ...)
```

Arguments

df_list	'grouped_df_list' class
...	functions for 'summarize'

Value

An object of the same class as `.data`. The unioned aggregated result of multiple grouping levels will be dropped.

web_service_data	<i>Web Service Data</i>
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Description

A dataset containing information about various web services.

Usage

```
web_service_data
```

Format

A data frame with 30,000 rows and 6 variables:

date_id	date id
id	user id
gender	gender
age	age band
page_view_cnt	pageview count
product_view_cnt_cat	product view count (category)

Source

Generated for example purposes

with_cube

with_cube

Description

Compute total amounts at different group levels, producing multiple subtotals. With the 'with_cube' clause following 'group_by', you can aggregate multiple grouping variables in one operation. This reflects the 'WITH CUBE' operations in 'SQL'.

Usage

```
with_cube(grouped_df)
```

Arguments

```
grouped_df      'grouped_df' class
```

Value

A list of 'grouped_df' class. each 'grouped_df' object has a different grouping level.

Examples

```
mtcars %>% group_by(vs, am) %>% grouping_sets("vs","am",c("vs","am"))
mtcars %>% group_by(vs, am) %>% with_rollup()
mtcars %>% group_by(vs, am) %>% with_cube()
```

with_rollup

with_rollup

Description

Compute total amounts at different group levels, producing multiple subtotals. With the 'with_rollup' clause following 'group_by', you can aggregate multiple grouping variables in one operation. This reflects the 'WITH ROLLUP' operations in 'SQL'.

Usage

```
with_rollup(grouped_df)
```

Arguments

```
grouped_df      'grouped_df' class
```

Value

A list of 'grouped_df' class. each 'grouped_df' object has a different grouping level.

Examples

```
mtcars %>% group_by(vs, am) %>% grouping_sets("vs", "am", c("vs", "am"))  
mtcars %>% group_by(vs, am) %>% with_rollup()  
mtcars %>% group_by(vs, am) %>% with_cube()
```


Index

* **datasets**

web_service_data, [6](#)

grouped_df_list-class, [2](#)

grouping_sets, [2](#)

summarise, [3](#)

summarise, ANY-method, [3](#)

summarise, grouped_df_list-method, [4](#)

summarize, [4](#)

summarize, ANY-method, [5](#)

summarize, grouped_df_list-method, [5](#)

summarize_rollup, [6](#)

web_service_data, [6](#)

with_cube, [7](#)

with_rollup, [7](#)