When time series meets tibble, it's tsibble!

binding univariate, multivariate, hierarchical & grouped time series into one

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⏰ INDEX

Time index can be:

- `POSIXct`
- `Date`
- `difftime/hms`
- `yearmonth/zoo::yearmth`
- `yearquarter/zoo::yearqtr`
- `numeric`

Time interval of data automatically computed from index.

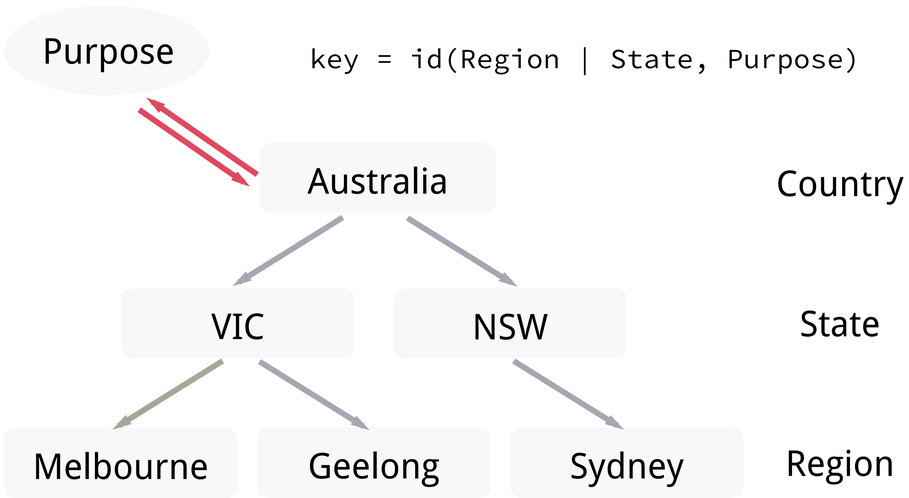
Quarter	Region	State	Purpose	Trips ('000)	...
1998 Q1	Melbourne	Victoria	Holiday	428	
1999 Q1	Geelong	Victoria	Business	15.9	
...	...	...	...	...	
2016 Q4	Sydney	New South Wales	Visiting	921	
2016 Q4	Blue Mountains	New South Wales	Other	4.73	

Australian domestic overnight trips*

```
as_tsibble(tourism, key = id(Region | State, Purpose),
  index = Quarter)
#> # A tsibble: 23,408 x 5 [1QUARTER]
#> # Keys:      Region | State, Purpose [308]
#>   Quarter Region          State           Purpose Trips
#>     <qtr> <chr>           <chr>           <chr>   <dbl>
#> 1 1998 Q1 Sydney          New South Wales Holiday 828
#> 2 1998 Q1 Blue Mountains  New South Wales Holiday 104
#> 3 1998 Q1 Capital Country New South Wales Holiday  99.2
#> 4 1998 Q1 Central Coast   New South Wales Holiday 279
#> 5 1998 Q1 Central NSW     New South Wales Holiday 170
#> # ... with 2.34e+04 more rows
```

* Data source: Tourism Research Australia

Each observation is uniquely identified by INDEX & KEY in a tsibble.



🔑 KEY

Key created via `id()` --- identifying variable:

- None: an implicit variable `id()`
- Single: an explicit variable `id(Purpose)`
- Nested: a nesting variable under another `id(Region | State)`
- Crossed: a crossing variable with another `id(Region, Purpose)`

🔪 MEASURES

🛠 DATA WRANGLING

- ☑ `fill_na()` turns implicit missing values into explicit missing values.
- ☑ `tsummarise()` aggregates over calendar periods.
- ☑ `slide(), tile(), stretch()` perform window calculations.
- ☑ `support` dplyr common verbs.

made with Sketch • learn more at bit.ly/tsibble