How can I use lubridate to obtain the first or last day of a given month?

Authored by

stats writer

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Lubridate is a popular R package that provides useful functions for handling date and time data. One of the functions it offers is the ability to obtain the first or last day of a given month. This can be achieved by using the `floor_date()` function, which allows the user to specify the date and the unit of measurement (in this case, month) they want to round down to. By specifying the unit as "month" and the date as the desired month, the function will return the first day of that month. Similarly, the `ceiling_date()` function can be used to obtain the last day of a given month. This feature of lubridate can be particularly useful in data analysis and time series forecasting, as it allows for easy manipulation and extraction of specific dates within a dataset.

R: Get First or Last Day of Month Using Lubridate

You can use the following methods to get the first or last day of the month for some date in R using functions from the package:

Method 1: Get First Day of Month

```
library(lubridate)df$first_day <- floor_date(ymd(df$date), 'month')
```

Method 2: Get Last Day of Month

```
library(lubridate)

df$last_day <- ceiling_date(ymd(df$date), 'month') - days(1)
```

The following examples show how to use each method

in practice with the following data frame:

```
#create data frame
df <- data.frame(date=c('2022-01-05', '2022-02-18', '2022-03-21',
'2022-09-15', '2022-10-30', '2022-12-25'),
sales=c(14, 29, 25, 23, 39, 46))

#view data frame
df

date sales
1 2022-01-05 14
2 2022-02-18 29
3 2022-03-21 25
4 2022-09-15 23
5 2022-10-30 39
6 2022-12-25 46
```

Example 1: Get First Day of Month Using lubridate

The following code shows how to use the floor_date() function from the lubridate package to get the first day of the month for each value in the date column:

```
#add new column that contains first day of month
```

```
df$first_day <- floor_date(ymd(df$date), 'month')

#view updated data frame
df

  date sales first_day
1 2022-01-05 14 2022-01-01
2 2022-02-18 29 2022-02-01
3 2022-03-21 25 2022-03-01
4 2022-09-15 23 2022-09-01
5 2022-10-30 39 2022-10-01
6 2022-12-25 46 2022-12-01
```

Notice that the values in the new first_day column contain the first day of the month for each value in the date column.

Note: We used the ymd() function to first convert the strings in the date column to a recognizable date format.

Example 2: Get Last Day of Month Using lubridate

The following code shows how to use the ceiling_date() function from the lubridate package to get the last day of the month for each value in the date column:

#add new column that contains last day of month
df$last_day <- ceiling_date(ymd(df$date), 'month') - days(1)

#view updated data frame
df

date sales last_day
1 2022-01-05 14 2022-01-31
2 2022-02-18 29 2022-02-28
3 2022-03-21 25 2022-03-31
4 2022-09-15 23 2022-09-30
5 2022-10-30 39 2022-10-31
6 2022-12-25 46 2022-12-3122-12-01

Notice that the values in the new last_day column contain the last day of the month for each value in the date column.

Refer to the lubridate for more date formatting options.