tidyquant_and_datetime_luo

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Homework 2- Tidyquant and Date/Time

```
library(tidyverse)
library(tidyquant)
```

Description

Perform the following tasks Use the tidyquant package: 1. Get the dividend payments of the company. 2. Extract the date of the last dividend payment. 3. Download and show Yahoo prices from 3 days before to 3 days after the last dividend payment. 4. Compare the Close and Adjusted Price and explain their difference

** Assigned Company: VW **

1. Get the dividend payments of the company.

```
div <- tq_get("VOW.DE", get = "dividends")

div %>% head()
```

```
## # A tibble: 6 x 3
##   symbol date       value
##   <chr>  <date>     <dbl>
## 1 VOW.DE 2011-05-04  2.2
## 2 VOW.DE 2012-04-20  3
## 3 VOW.DE 2013-04-26  3.5
## 4 VOW.DE 2014-05-14  4
## 5 VOW.DE 2015-05-06  4.8
## 6 VOW.DE 2016-06-23  0.11
```

2. Extract the date of the last dividend payment.

```
ldate<-div %>% filter(date==max(date)) %>% .[["date"]]
ldate
```

```
## [1] "2020-10-01"
```

3. Download and show Yahoo prices from 3 days before to 3 days after the last dividend payment.

```
stocks <- tq_get("VOW.DE", get = "stock.price",
                 from = as.Date(ldate) - 3,
```

```
                to = as.Date(ldate) + 3)
stocks %>% head()
```

```
## # A tibble: 5 x 8
##   symbol date        open  high   low close volume adjusted
##   <chr>  <date>     <dbl> <dbl> <dbl> <dbl>  <dbl>    <dbl>
## 1 VOW.DE 2020-09-28  147   150.  146.  150.  55020     146.
## 2 VOW.DE 2020-09-29  151.  151.  148.  150.  56067     145.
## 3 VOW.DE 2020-09-30  150.  151.  149.  149.  57800     144.
## 4 VOW.DE 2020-10-01  146.  147.  144.  144.  62188     144.
## 5 VOW.DE 2020-10-02  144.  145.  141.  144.  80289     144.
```

4. Compare the Close and Adjusted Price and explain their difference

```
stocks %>%
  select(symbol,date,close,adjusted) %>%
  mutate(difference=close-adjusted)
```

```
## # A tibble: 5 x 5
##   symbol date       close adjusted difference
##   <chr>  <date>     <dbl>    <dbl>      <dbl>
## 1 VOW.DE 2020-09-28  150.     146.       4.84
## 2 VOW.DE 2020-09-29  150.     145.       4.84
## 3 VOW.DE 2020-09-30  149.     144.       4.80
## 4 VOW.DE 2020-10-01  144.     144.       0
## 5 VOW.DE 2020-10-02  144.     144.       0
```

Der Adjusted Preis ist der Aktienwert nach Abzug der Dividende.