

DESCRIPTION

Table: Weather

+-----+-----+	
Column Name Type	
+-----+-----+	
id int	
recordDate date	
temperature int	
+-----+-----+	

id is the column with unique values for this table.

There are no different rows with the same recordDate.

This table contains information about the temperature on a certain day.

Write a solution to find all dates' id with higher temperatures compared to its previous dates (yesterday).

Return the result table in **any order**.

The result format is in the following example.

Example 1:

Input:

Weather table:

+----+-----+-----+			
id recordDate temperature			
+----+-----+-----+			
1 2015-01-01 10			
2 2015-01-02 25			
3 2015-01-03 20			
4 2015-01-04 30			
+----+-----+-----+			

Output:

+----+

| id |

+----+

| 2 |

| 4 |

+----+

Explanation:

In 2015-01-02, the temperature was higher than the previous day (10 -> 25).

In 2015-01-04, the temperature was higher than the previous day (20 -> 30).

SOLUTION in Pandas

Option 1:

- Sort 'weather' by 'recordDate' column using **DataFrame.sort_values**
- Find the following day ('1 day' difference) in 'recordDate' column and a higher temperature in 'temperature' column using **DataFrame.diff**

```
import pandas as pd
```

```
def rising_temperature(weather: pd.DataFrame) -> pd.DataFrame:  
    weather = weather.sort_values(by = 'recordDate')  
    df = weather[(weather['recordDate'].diff() == '1 days') & (weather['temperature'].diff() > 0)]  
    return df[['id']]
```

Option 2:

- Sort 'weather' by 'recordDate' column using **DataFrame.sort_values**
- Find two columns ('date diff' and 'temp diff') using **DataFrame.shift**

```
import pandas as pd
```

```
def rising_temperature(weather: pd.DataFrame) -> pd.DataFrame:  
    weather = weather.sort_values(by='recordDate')  
    weather['date diff'] = weather['recordDate'] - weather['recordDate'].shift(periods = 1)  
    weather['temp diff'] = weather['temperature'] - weather['temperature'].shift(periods = 1)  
    return weather[['id']].loc[(weather['date diff'] == '1 days') & (weather['temp diff'] > 0)]
```