

# 197. Rising Temperature

Easy

Topics

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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).

## MySQL:

# Write your MySQL query statement below

```
SELECT w1.id
FROM Weather w1
JOIN Weather w2
  ON DATEDIFF(w1.recordDate, w2.recordDate) = 1
WHERE w1.temperature > w2.temperature;
```

## Pandas:

```
import pandas as pd
```

```
def rising_temperature(weather: pd.DataFrame) -> pd.DataFrame:
```

```
    # Ensure recordDate is datetime
```

```
    weather['recordDate'] = pd.to_datetime(weather['recordDate'])
```

```
    # Sort by date to align consecutive days
```

```
    weather = weather.sort_values('recordDate')
```

```
    # Create a shifted column: yesterday's temperature
```

```
    weather['yesterday_temp'] = weather['temperature'].shift(1)
```

```
    weather['yesterday_date'] = weather['recordDate'].shift(1)
```

```
# Check if yesterday is exactly one day before
mask = (weather['recordDate'] - weather['yesterday_date']).dt.days == 1

# Select rows where today's temp > yesterday's temp and date difference = 1
result = weather[(weather['temperature'] > weather['yesterday_temp']) & mask]

# Return only the id column
return result[['id']]
```

## PostgreSQL:

```
-- Write your PostgreSQL query statement below
SELECT w1.id
FROM Weather w1
JOIN Weather w2
  ON w1.recordDate = w2.recordDate + INTERVAL '1 day'
WHERE w1.temperature > w2.temperature;
```