1225. Report Contiguous Dates

Description

Table: `Failed`

```
+--------------+---------+
| Column Name  | Type    |
+--------------+---------+
| fail_date    | date    |
+--------------+---------+
fail_date is the primary key (column with unique values) for this table.
This table contains the days of failed tasks.
```

Table: `Succeeded`

```
+--------------+---------+
| Column Name  | Type    |
+--------------+---------+
| success_date | date    |
+--------------+---------+
success_date is the primary key (column with unique values) for this table.
This table contains the days of succeeded tasks.
```

A system is running one task **every day**. Every task is independent of the previous tasks. The tasks can fail or succeed.

Write a solution to report the `period_state` for each continuous interval of days in the period from `2019-01-01` to `2019-12-31`.

`period_state` is `'failed'` if tasks in this interval failed or `'succeeded'` if tasks in this interval succeeded. Interval of days are retrieved as `start_date` and `end_date.`

Return the result table ordered by `start_date`.

The result format is in the following example.

Example 1:

```
Input:
Failed table:
+-------------------+
| fail_date         |
+-------------------+
| 2018-12-28        |
| 2018-12-29        |
| 2019-01-04        |
| 2019-01-05        |
+-------------------+
Succeeded table:
+-------------------+
| success_date      |
+-------------------+
| 2018-12-30        |
| 2018-12-31        |
| 2019-01-01        |
| 2019-01-02        |
| 2019-01-03        |
| 2019-01-06        |
+-------------------+
Output:
+--------------+--------------+--------------+
| period_state | start_date   | end_date     |
+--------------+--------------+--------------+
| succeeded    | 2019-01-01   | 2019-01-03   |
| failed       | 2019-01-04   | 2019-01-05   |
| succeeded    | 2019-01-06   | 2019-01-06   |
+--------------+--------------+--------------+
Explanation:
The report ignored the system state in 2018 as we care about the system in the period 2019-01-01 to 2019-12-31.
From 2019-01-01 to 2019-01-03 all tasks succeeded and the system state was "succeeded".
From 2019-01-04 to 2019-01-05 all tasks failed and the system state was "failed".
From 2019-01-06 to 2019-01-06 all tasks succeeded and the system state was "succeeded".
```