Problem 1270: All People Report to the Given Manager

Problem Information

Difficulty: Medium
Acceptance Rate: 0.00%
Paid Only: No

Problem Description

Table:

Employees

+---------------+---------+ | Column Name | Type | +---------------+---------+ | employee_id | int | | employee_name | varchar | | manager_id | int | +---------------+---------+ employee_id is the column of unique values for this table. Each row of this table indicates that the employee with ID employee_id and name employee_name reports his work to his/her direct manager with manager_id The head of the company is the employee with employee_id = 1.

Write a solution to find

employee_id

of all employees that directly or indirectly report their work to the head of the company.

The indirect relation between managers

will not exceed three managers

as the company is small.

Return the result table in

any order

.

The result format is in the following example.

Example 1:

Input:

Employees table: +-------------+---------------+------------+ | employee_id | employee_name | manager_id | +-------------+---------------+------------+ | 1 | Boss | 1 | | 3 | Alice | 3 | | 2 | Bob | 1 | | 4 | Daniel | 2 | | 7 | Luis | 4 | | 8 | Jhon | 3 | | 9 | Angela | 8 | | 77 | Robert | 1 | +-------------+---------------+------------+

Output:

+-------------+ | employee_id | +-------------+ | 2 | | 77 | | 4 | | 7 | +-------------+

Explanation:

The head of the company is the employee with employee_id 1. The employees with employee_id 2 and 77 report their work directly to the head of the company. The employee with employee_id 4 reports their work indirectly to the head of the company 4 --> 2 --> 1. The employee with employee_id 7 reports their work indirectly to the head of the company 7 --> 4 --> 2 --> 1. The employees with employee_id 3, 8, and 9 do not report their work to the head of the company directly or indirectly.

Code Snippets

MySQL:

```
# Write your MySQL query statement below
```

MS SQL Server:

```
/* Write your T-SQL query statement below */
```

PostgreSQL:

```
-- Write your PostgreSQL query statement below
```

Oracle:

```
/* Write your PL/SQL query statement below */
```

Pandas:

```
import pandas as pd

def find_reporting_people(employees: pd.DataFrame) -> pd.DataFrame:
```

Solutions

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