175. Combine Two Tables

Easy | Topics | Companies

SQL Schema > Pandas Schema >

Table: `Person`

```
+-------------+---------+
| Column Name | Type    |
+-------------+---------+
| personId    | int     |
| lastName    | varchar |
| firstName   | varchar |
+-------------+---------+
personId is the primary key (column with unique
values) for this table.
This table contains information about the ID of some
persons and their first and last names.
```

Table: `Address`

```
+-------------+---------+
| Column Name | Type    |
+-------------+---------+
| addressId   | int     |
| personId    | int     |
| city        | varchar |
| state       | varchar |
+-------------+---------+
addressId is the primary key (column with unique
values) for this table.
Each row of this table contains information about the
city and state of one person with ID = PersonId.
```

Write a solution to report the first name, last name, city, and state of each person in the `Person` table. If the address of a `personId` is not present in the `Address` table, report `null` instead.

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

The result format is in the following example.

Example 1:

Input:

Person table:

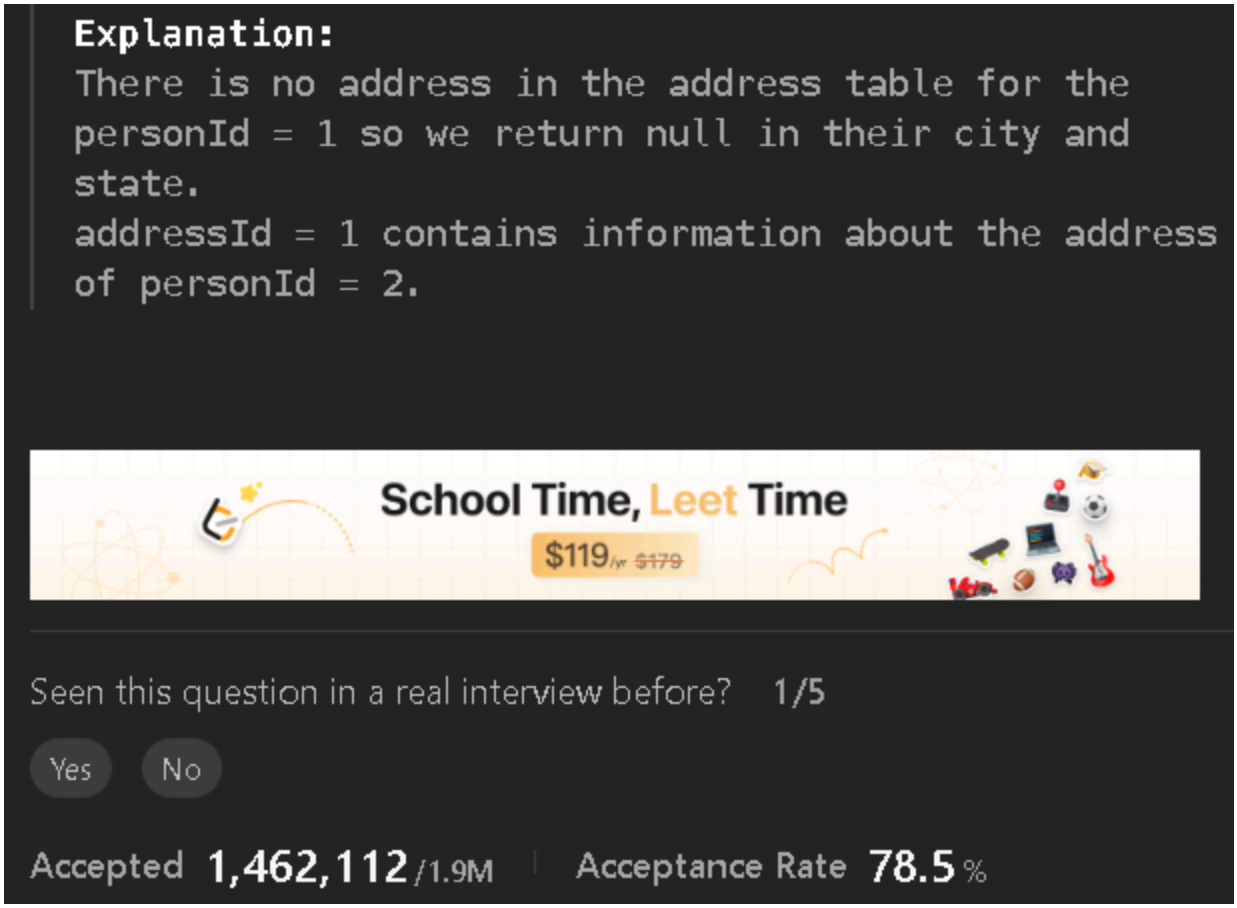
personId	lastName	firstName
1	Wang	Allen
2	Alice	Bob

Address table:

addressId	personId	city	state
1	2	New York City	New York
2	3	Leetcode	California

Output:

firstName	lastName	city	state
Allen	Wang	Null	Null
Bob	Alice	New York City	New York



MySQL:

```
# Write your MySQL query statement below
# Write your MySQL query statement below
SELECT
    p.firstName,
    p.lastName,
    a.city,
    a.state
FROM Person p
LEFT JOIN Address a
ON p.personId = a.personId;
```

Pandas:

```
import pandas as pd

def combine_two_tables(person: pd.DataFrame, address: pd.DataFrame) -> pd.DataFrame:
    # Perform a left join on 'personId'
    result = pd.merge(
        person,
```

```
        address,
        how="left",
        on="personId"
    )

    # Select required columns in correct order
    return result[["firstName", "lastName", "city", "state"]]
```

PostgreSQL:

```
-- Write your PostgreSQL query statement below
SELECT
    p.firstName,
    p.lastName,
    a.city,
    a.state
FROM Person p
LEFT JOIN Address a
ON p.personId = a.personId;
```