combine-two-tables (Easy)

 ====================== Question ==========================

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 |
+-----------+----------+---------------+----------+
```
Explanation:
There is no address in the address table for the personId = 1 so we return null in their city and state.
addressId = 1 contains information about the address of personId = 2.

======================= Answer ===========================

SELECT p.firstName, p.lastName, a.city, a.state
FROM person AS p
LEFT JOIN address AS a on p.personId = a.personId ;

Explanation:

1. **Select Columns**: Retrieve `firstName`, `lastName` from the `person` table and `city`, `state` from the `address` table.
2. **From `person` table**: Use the `person` table as the main source of data, giving it the alias `p`.
3. **Left Join with `address` table**: Join the `address` table (alias `a`) to include corresponding address details.
4. **Join Condition**: Match records where `personId` from the `person` table equals `personId` from the `address` table.

This results in a list of names with their corresponding city and state, if available. If no address is found, the city and state will be `NULL`.