1350. Students With Invalid Departments Premium

`Easy` 🏷️ `Topics` 🏢 `Companies`

SQL Schema > Pandas Schema >

Table: `Departments`

```
+---------------+---------+
| Column Name   | Type    |
+---------------+---------+
| id            | int     |
| name          | varchar |
+---------------+---------+
In SQL, id is the primary key of this table.
The table has information about the id of each department of a university.
```

Table: `Students`

```
+---------------+---------+
| Column Name   | Type    |
+---------------+---------+
| id            | int     |
| name          | varchar |
| department_id | int     |
+---------------+---------+
In SQL, id is the primary key of this table.
The table has information about the id of each student at a university and the id of the department he/she studies at.
```

Find the id and the name of all students who are enrolled in departments that no longer exist.

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

The result format is in the following example.

Example 1:

```
Input:
Departments table:
+------+--------------------------+
| id   | name                     |
+------+--------------------------+
| 1    | Electrical Engineering   |
| 7    | Computer Engineering     |
| 13   | Bussiness Administration |
+------+--------------------------+
Students table:
+------+-----------+---------------+
| id   | name      | department_id |
+------+-----------+---------------+
| 23   | Alice     | 1             |
| 1    | Bob       | 7             |
| 5    | Jennifer  | 13            |
| 2    | John      | 14            |
| 4    | Jasmine   | 77            |
| 3    | Steve     | 74            |
| 6    | Luis      | 1             |
| 8    | Jonathan  | 7             |
| 7    | Daiana    | 33            |
| 11   | Madelynn  | 1             |
+------+-----------+---------------+
Output:
+------+----------+
| id   | name     |
+------+----------+
| 2    | John     |
| 7    | Daiana   |
| 4    | Jasmine  |
| 3    | Steve    |
+------+----------+
Explanation:
John, Daiana, Steve, and Jasmine are enrolled in departments 14, 33, 74, and 77 respectively. department 14, 33, 74, and 77 do not exist in the Departments table.
```

Seen this question in a real interview before?   1/5

`Yes` `No`

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