

# Problem 1350: Students With Invalid Departments

## Problem Information

Difficulty: Easy

Acceptance Rate: 0.00%

Paid Only: No

## Problem Description

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.

## 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_students(departments: pd.DataFrame, students: pd.DataFrame) ->
pd.DataFrame:
```

## Solutions

### MySQL Solution:

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