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☆ Scheduling Errors

A university maintains data on professors, departments, courses, and schedules in four tables: *DEPARTMENT*, *PROFESSOR*, *COURSE*, and *SCHEDULE*. The university's new Dean is streamlining their scheduling and wants to know which changes would be necessary to ensure that each professor *only* teaches courses within their own department.

Write a query to print the names of professors with the names of the courses they teach (or have taught) *outside of their department*. Each row in the results must be distinct (i.e., a professor teaching the same course over multiple semesters should only appear once), but the results can be in any order.

Input Format

PROFESSOR			DEPARTMENT		
Name	Type	Description	Name	Type	Description
ID	Integer	A professor's ID in the inclusive range [1, 1000]. This is a <i>primary key</i> .	ID	Integer	A department ID in the inclusive range [1, 1000]. This is a <i>primary key</i> .
NAME	String	A professor's name. This field contains between 1 and 100 characters (inclusive).	NAME	String	A department name. This field contains between 1 and 100 characters (inclusive).
DEPARTMENT_ID	Integer	A professor's department ID. This is a <i>foreign key</i> to <i>DEPARTMENT.ID</i> .			
SALARY	Integer	A professor's salary in the inclusive range [5000, 40000].			

COURSE			SCHEDULE		
Name	Type	Description	Name	Type	Description
ID	Integer	A course ID in the inclusive range [1, 1000]. This is a <i>primary key</i> .	PROFESSOR_ID	Integer	The ID of the professor teaching the course. This is a <i>foreign key</i> to <i>PROFESSOR.ID</i> .
NAME	String	A course name. This field contains between 1 and 100 characters (inclusive).	COURSE_ID	Integer	The course's ID number. This is a <i>foreign key</i> to <i>COURSE.ID</i> .
DEPARTMENT_ID	Integer	A course's department ID. This is a <i>foreign key</i> to <i>DEPARTMENT.ID</i> .	SEMESTER	Integer	A semester ID in the inclusive range [1, 6].
CREDITS	Integer	The number of credits allocated to the course in the inclusive range [1, 10].	YEAR	Integer	A calendar year in the inclusive range [2000, 2017].

Output Format

Each distinct row of results must contain the name of a professor followed by the name of a course they taught outside of their department in the format:

PROFESSOR.NAME COURSE.NAME

Sample Input

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1	Nancy Daniels	4	7169	3	Biological Sciences	
2	Billy Knight	1	9793	5	Technology	
3	Harry Myers	4	25194	6	Humanities & Social Sciences	
4	Antonio Rodriguez	3	9686	2	Clinical Medicine	
5	Nicole Gome	2	30860	4	Arts and Humanities	
6	Eugene George	5	10487	1	Physical Sciences	
7	Gloria Vasquez	4	6353			
8	Joyce Flores	1	25796			
9	Daniel Gilbert	5	35678			
10	Matthew Stevens	2	26648			

COURSE			
ID	NAME	DEPARTMENT_ID	CREDITS
9	Clinical Biochemistry	2	3
4	Astronomy	1	6
10	Clinical Neuroscience	2	5
1	Pure Mathematics and Mathematical Statistics	1	3
6	Geography	1	7
8	Chemistry	1	1
5	Physics	1	8
3	Earth Science	1	7
7	Materials Science and Metallurgy	1	5
2	Applied Mathematics and Theoretical Physics	1	5

SCHEDULE			
PROFESSOR_ID	COURSE_ID	SEMESTER	YEAR
4	4	3	2003
3	3	1	2011
1	7	5	2011
7	7	1	2010
4	6	1	2001
9	3	1	2012
10	2	4	2009
1	1	3	2014
1	2	3	2008
1	7	5	2007

Sample Output

Antonio Rodriguez Astronomy
Harry Myers Earth Sciences
Nancy Daniels Materials Science and Metallurgy
Gloria Vasquez Materials Science and Metallurgy
Antonio Rodriguez Geography
Daniel Gilbert Earth Sciences



Explanation

By referring to the sample data above, we can confirm that:

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- 1. Professor *Antonio Rodriguez*'s *department_id* is 3, but the *Astronomy* course's *department_id* is 1.
- 2. Professor *Harry Myers*'s *department_id* is 4, but the *Earth Sciences* course's *department_id* is 1.
- 3. Professor *Nancy Daniels*'s *department_id* is 4, but the *Astronomy* course's *department_id* is 1.
- 4. Professor *Gloria Vasquez*'s *department_id* is 4, but the *Materials Science and Metallurgy* course's *department_id* is 1.
- 5. Professor *Antonio Rodriguez*'s *department_id* is 3, but the *Geography* course's *department_id* is 1.
- 6. Professor *Daniel Gilbert*'s *department_id* is 5, but the *Earth Sciences* course's *department_id* is 1.
- 7. Professor *Matthew Stevens*'s *department_id* is 2, but the *Applied Mathematics and Theoretical Physics* course's *department_id* is 1.
- 8. Professor *Nancy Daniels*'s *department_id* is 4, but the *Pure Mathematics and Mathematical Statistics* course's *department_id* is 1.
- 9. Professor *Nancy Daniels*'s *department_id* is 4, but the *Applied Mathematics and Theoretical Physics* course's *department_id* is 1.
- 10. Professor *Nancy Daniels*'s *department_id* is 4, but the *Materials Science and Metallurgy* course's *department_id* is 1.

We recommend you take a quick tour of our editor before you proceed. The timer will pause up to 90 seconds for the tour.

Start tour



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Original Code

MySQL



```
1  /*
2  Enter your query here.
3  Please append a semicolon ";" at the end of the query
4  */
5
6
```

Line: 1 Col: 1

Run Query

Submit code & Continue

(You can submit any number of times)