

Lab: outer joins

Write SQL to answer the following questions. Use the courses data (read the files [courses-ddl.sql](#) and [courses-small.sql](#)).

1. Perform a natural join on the student and takes tables. Examine the output.
2. Perform a natural left outer join on the student and takes tables. Compare the output to part 1 above.
3. Write an SQL query that gives the names of students who have not taken any classes. Hint: remember that to compare an attribute to 'null', you need 'is null', not '= null'.
4. Write an SQL query that gives the course_id of courses have not been taught. (This is similar to part 3.)
5. Write an SQL query that gives the number of courses taken for every student in the student table.