Showing rows 0 - 14 (15 total, Query took 0.0010 seconds.)

```
-- ============== UNIVERSITY DATABASE QUERIES: A5 ============== -- 1) Show a list of course ids, section ids, semester and room numbers as well --
as the year for all courses held in 2008 and beyond. select course_id, sec_id, semester, room_no, year from section where year >= 2008;
```

course_id	sec_id	semester	room_no	year
CS-101	1	Fall	101	2009
CS-101	1	Spring	101	2010
FIN-201	1	Spring	101	2010
MU-199	1	Spring	101	2010
BIO-101	1	Summer	514	2009
BIO-301	1	Summer	514	2010
HIS-351	1	Spring	514	2010
CS-190	1	Spring	3128	2009
CS-190	2	Spring	3128	2009
CS-319	2	Spring	3128	2010
CS-347	1	Fall	3128	2009
EE-181	1	Spring	3128	2009
CS-319	1	Spring	100	2010
PHY-101	1	Fall	100	2009
CS-315	1	Spring	120	2010

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 12 (13 total, Query took 0.0011 seconds.)

```
-- 2) Make a list of department names and the name of the building associated -- with the department along with the course_ids and course titles
taught by each -- department. select d.dept_name, d.building, c.course_id, c.title from department as d, course as c where d.dept_name =
c.dept_name;
```

dept_name	building	course_id	title
Biology	Watson	BIO-101	Intro. to Biology
Biology	Watson	BIO-301	Genetics
Biology	Watson	BIO-399	Computational Biology
Comp. Sci.	Taylor	CS-101	Intro. to Computer Science
Comp. Sci.	Taylor	CS-190	Game Design
Comp. Sci.	Taylor	CS-315	Robotics
Comp. Sci.	Taylor	CS-319	Image Processing
Comp. Sci.	Taylor	CS-347	Database System Concepts
Elec. Eng.	Taylor	EE-181	Intro. to Digital Systems
Finance	Painter	FIN-201	Investment Banking
History	Painter	HIS-351	World History
Music	Packard	MU-199	Music Video Production
Physics	Watson	PHY-101	Physical Principles

Showing rows 0 - 1 (2 total, Query took 0.0009 seconds.)

```
-- 3) Which courses are taught by Professor Crick? List the unique course_ids -- only. select t.course_id from teaches as t, instructor as i where
t.ID = i.ID and i.name = "Crick";
```

course_id
BIO-101
BIO-301

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 8 (9 total, Query took 0.0013 seconds.)

```
-- 4) Make a list of the names of the instructors and the names of the students -- that they advise. Your results should have two (labelled)
columns: Instructor -- and Student. select i.name as Instructor, s.name as Student from advisor as a, student as s, instructor as i where a.s_id =
s.ID and a.i_id = i.ID;
```

Instructor	Student
Srinivasan	Shankar
Einstein	Peltier
Einstein	Levy

Katz	Zhang
Katz	Brown
Singh	Chavez
Crick	Tanaka
Kim	Aoi
Kim	Bourikas

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 1 (2 total, Query took 0.0014 seconds.)

```
-- 5) Make a list of students names, course_id and their grades in all courses -- they took in 2009. Include only students associated with the Finance or -- Physics departments. You do not need to include students who did not take -- courses in 2009. select s.name, t.course_id, t.grade from takes as t, student as s where s.ID = t.ID and t.year = 2009 and (s.dept_name = "Finance" or s.dept_name = "Physics");
```

name	course_id	grade
Peltier	PHY-101	B-
Levy	CS-101	F

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 0 (1 total, Query took 0.0010 seconds.)

```
-- 6) How many courses have been taken by the student named "Levy"? Count all -- courses, including any duplicates. select count(*) as taken_by_Levy from student as s, takes as t where t.ID = s.ID and s.name = "Levy" group by s.name;
```

taken_by_Levy
3

Showing rows 0 - 6 (7 total, Query took 0.0008 seconds.)

```
-- 7) Make a list of the departments along with the number of professors in each -- department and the average salary of the professors in that department. Call -- the columns DeptName, NumProfs and AvgSalary. select dept_name as DeptName, count(ID) as NumProfs, avg(salary) as AvgSalary from instructor group by dept_name;
```

DeptName	NumProfs	AvgSalary
Biology	1	72000.000000
Comp. Sci.	3	77333.333333
Elec. Eng.	1	80000.000000
Finance	2	85000.000000
History	2	61000.000000
Music	1	40000.000000
Physics	2	91000.000000

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 12 (13 total, Query took 0.0010 seconds.)

```
-- 8) List the name and ID of each course in the database and the ID of the -- course prerequisite, if they have one. In mysql, left/right joins implement -- outer joins that we used in relational algebra. select c.title as name, c.course_id, p.prereq_id from course as c left outer join prereq as p on c.course_id = p.course_id;
```

name	course_id	prereq_id
Intro. to Biology	BIO-101	*NULL*
Genetics	BIO-301	BIO-101
Computational Biology	BIO-399	BIO-101
Intro. to Computer Science	CS-101	*NULL*
Game Design	CS-190	CS-101
Robotics	CS-315	CS-101
Image Processing	CS-319	CS-101
Database System Concepts	CS-347	CS-101
Intro. to Digital Systems	EE-181	PHY-101
Investment Banking	FIN-201	*NULL*
World History	HIS-351	*NULL*
Music Video Production	MU-199	*NULL*
Physical Principles	PHY-101	*NULL*

Showing rows 0 - 0 (1 total, Query took 0.0012 seconds.)

```
-- 9) Make a list of courses (course ids) that were offered in both Fall 2009 -- and in Spring 2010. (This does not mean either/or, but courses that were -- offered in both semesters) select course_id from section where (semester = "Fall" and year = 2009) and course_id in (select course_id from section where (semester = "Spring" and year = 2010));
```

course_id
CS-101

Showing rows 0 - 6 (7 total, Query took 0.0010 seconds.)

```
-- 10) Show the names and salaries of all professors who make more than the -- average salary at the university. select name, salary from instructor where salary > (select avg(salary) from instructor);
```

name	salary
Wu	90000.00
Einstein	95000.00
Gold	87000.00
Katz	75000.00
Singh	80000.00
Brandt	92000.00
Kim	80000.00