SQL 5 write-up

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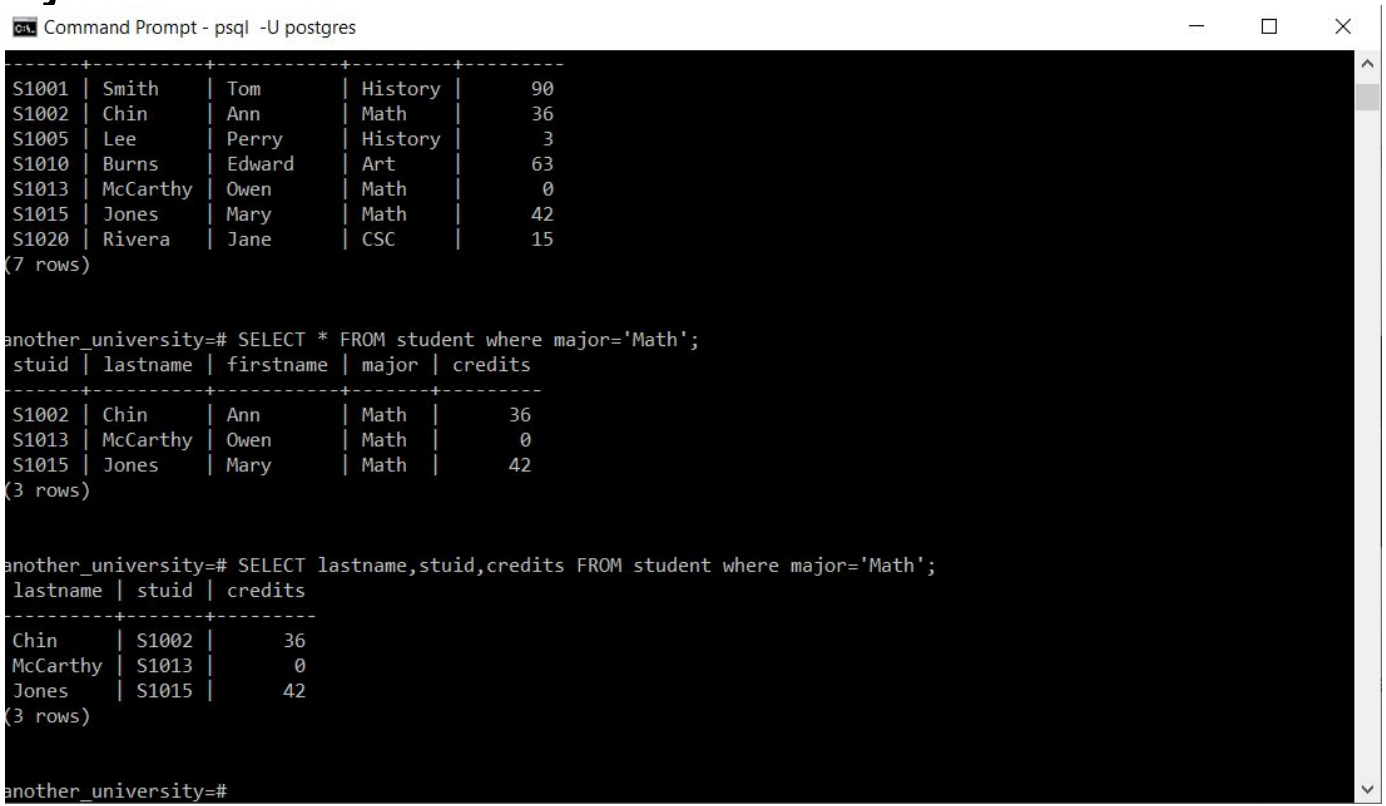
1. “Get (only) the last name, id and number of credits of all Math majors.”



“Get the class number of all classes in which students are enrolled.” Eliminate duplicates (if any).

```
another_university=# SELECT DISTINCT classnumber FROM enroll where grade IS NOT NULL;
 classnumber
-------------
 HST205A
 MTH101B
 ART103A
 CSC201A
 MTH103C
(5 rows)
```

2. “Get all information about CSC Faculty.”

```
another_university=# SELECT * FROM facuty;
ERROR:  relation "facuty" does not exist
LINE 1: SELECT * FROM facuty;
                      ^
another_university=# SELECT * FROM faculty;
 facid |  name  | department |    rank
-------+--------+------------+------------
 F101  | Adams  | Art        | Professor
 F105  | Tanaka | CSC        | Instructor
 F110  | Byrne  | Math       | Assistant
 F115  | Smith  | History    | Associate
 F221  | Smith  | CSC        | Professor
(5 rows)


another_university=# SELECT CSC FROM faculty;
ERROR:  column "csc" does not exist
LINE 1: SELECT CSC FROM faculty;
               ^
another_university=# SELECT * FROM faculty where department='CSC';
 facid |  name  | department |    rank
-------+--------+------------+------------
 F105  | Tanaka | CSC        | Instructor
 F221  | Smith  | CSC        | Professor
(2 rows)


another_university=#
```

“Get (only) the names and ids of all Faculty members”. Order the result-set by faculty name, in ascending alphabetical order. The columns should be named FacultyName and FacultyNumber.

```
another_university=# SELECT name AS FacultyName,facid AS FacultyNumber FROM faculty ORDER BY NAME;
 facultyname | facultynumber
-------------+---------------
 Adams       | F101
 Byrne       | F110
 Smith       | F115
 Smith       | F221
 Tanaka      | F105
(5 rows)
```

“Get the last name and first name of all math majors who have at least 30 credits but no more than 59 credits.”

```
another_university=# SELECT lastname,firstname FROM student WHERE credits BETWEEN 30 AND 59;
 lastname | firstname
----------+-----------
 Chin     | Ann
 Jones    | Mary
(2 rows)
```

“Find student id and grade of all students taking any class taught by the Faculty member whose faculty Id is F110.” Order the result-set by ascending student id.

```
another_university=# SELECT stuid,grade FROM enroll where classnumber LIKE 'MTH%' ORDER BY stuid ASC;
 stuid | grade
-------+-------
 S1002 | B
 S1010 |
 S1020 | A
(3 rows)
```

“Find the class numbers, last name, first name, and majors of all students enrolled in the classes taught by Faculty member F110”

```
another_university=# SELECT enroll.classnumber, student.lastname,student.firstname, student.major FROM enroll JOIN stude
nt ON student.stuid = enroll.stuid JOIN class ON class.classnumber = enroll.classnumber JOIN faculty ON faculty.facid =
class.facid WHERE faculty.facid = 'F110';
 classnumber | lastname | firstname | major
-------------+----------+-----------+-------
 MTH103C     | Chin     | Ann       | Math
 MTH103C     | Burns    | Edward    | Art
 MTH101B     | Rivera   | Jane      | CSC
(3 rows)
```

“Find all classes that meet in the same room, with their schedules and room numbers.”. Each tuple in the result-set should include the class number, schedule of each of the pair of classes that meet in the same room, along with the room. Order the result-set by the class number of the first of the classes in the pair, in ascending order.

```
another_university=# SELECT c1.classnumber, c1.schedule, c1.room, c2.classnumber, c2.schedule
another_university-# FROM class c1
another_university-# JOIN class c2
another_university-# ON c1.room = c2.room
another_university-# WHERE c1.classnumber < c2.classnumber
another_university-# ORDER BY c1.classnumber ASC;
 classnumber | schedule | room | classnumber | schedule
-------------+----------+------+-------------+----------
 ART103A     | MWF9     | H221 | HST205A     | MWF11
 CSC201A     | uThF10   | M110 | CSC203A     | MThF12
 MTH101B     | MTuTh9   | H225 | MTH103C     | MWF11
(3 rows)
```