Handout 4 for 9/4/18

Consider the following relations:

Student(*snum:* integer, *sname:* string, *major:* string, *level:* string, *age:* integer)
Class(*name:* string, *meets at:* string, *room:* string, *fid:* integer)
Enrolled(*snum:* integer, *cname:* string)
Faculty(*fid*: integer, *fname:* string, *deptid:* integer)

The meaning of these relations is straightforward; for example, Enrolled has one record per student-class pair such that the student is enrolled in the class.

Write the following queries in SQL. No duplicates should be printed in any of the answers.

- Retrieve the names of all Juniors (level = JR) who are enrolled in a class taught by Jones
- Retrieve the age of the oldest student who is either a History major or enrolled in a course taught by Jones
- Retrieve the names of all classes that either meet in room R128 or have five or more students enrolled.
- Retrieve the names of all students who are enrolled in two classes that meet at the same time.
- Retrieve the names of faculty members who teach in every room in which some class is taught.
- Retrieve the names of faculty members for whom the combined enrollment of the courses that they teach is less than five.
- For each level, print the level and the average age of students for that level.
- For all levels except JR, print the level and the average age of students for that level.
- For each faculty member that has taught classes only in room R128, print the faculty member's name and the total number of classes she or he has taught.
- Retrieve the names of students enrolled in the maximum number of classes.
- Retrieve the names of students not enrolled in any class.
- For each age value that appears in Students, Retrieve the level value that appears most often. For example, if there are more FR level students aged 18 than SR, JR, or SO students aged 18, you should print the pair (18, FR).