Today’s class: catch-up; review.
Next class: Midterm Exam 1.

1. List the members of your group below. Underline your name.

2. Let PSCUD denote the relational algebra with operators projection, selection, cross product, union, and difference. Prove or disprove each: PSCUD can express: (a) existential quantification; (b) universal quantification. Illustrate your answer with suitable examples.
3. Recall the students-courses-enrollments database from previous exercises. We say a TA $x$ more senior than a TA $y$ if $x$ serves as a TA for a course taken by $y$. A TA is maximally senior if there is no TA senior to him or her. Write Datalog and SQL (with recursion) queries to find the names of the maximally senior TAs.