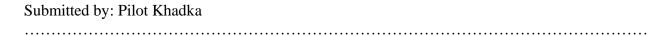
Relational Algebra for DBMS assignment 2:



- 4(a). Find the names of all instructors in the History department.
 - $\Rightarrow \Pi_{names}(\sigma_{dept_name="History"}(instructor))$
- 4(b). Find the instructor ID and department name of all instructors associated with a department with budget of greater than \$75,000
 - $\Rightarrow \Pi_{ID.dept\ name}(\sigma_{salary>95,000}(instructor))$
- 4(c). Find the names of all instructors in the Comp. Sci. department together with the course titles of all the courses that the instructors teach
 - $\Rightarrow \ \Pi_{name,title}(\sigma_{dept_name = "Computer\ Science"}(instructor \bowtie teaches \bowtie course))$
- 4(d). Find the names of all students who have taken the course title of "Introduction to Computer Science".
 - $\Rightarrow \Pi_{name}(\sigma_{title="Introduction to Computer Science"}(student \bowtie takes \bowtie course))$
- 4(e). For each department, find the maximum salary of instructors in that department. You may assume that every department has at least one instructor.

 \Rightarrow

4(f). Find the lowest, across all departments, of the per-department maximum salary computed by the preceding query.

 \Rightarrow

- 4(g). Find the ID and names of all students who do not have an advisor.
 - $\Rightarrow \Pi_{student.s_id,student.name}(\sigma_{student.s_id=NULL}(\sigma_{s_id}(student) \sigma_{s_id}(advisor))$