Nhat Doan_ CSC134_Midterm_Question 1

1. Specify the query using relational algebra (20 points)
"John Smith" is a department manager. His department controls many projects. List the names
   of those projects controlled by his department.

Answer:

Manager_SSN ← $\pi_{SSN}(\sigma_{(FNAME="John", LNAME = "Smith")}($ EMPLOYEE$))$

Department_of_Manager ← $\pi_{DNUMBER}($DEPARTMENT $\bowtie_{MGRSSN= SSN}$ Manager_SSN$)$

Name_of_Projects ← $\pi_{PNAME}($Department_of_Manager $\bowtie_{DNUMBER = DNUM}$ PROJECT$)$