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CSC 134 – 01
Assignment 3

1. List the departments (department name, department number) that have a location in 'Seattle'.

    $\prod_{DNAME, DNUMBER}(\sigma_{DLOCATION='Seattle'}(DEPARTMENT \ X \ DEPT\_LOCATIONS))$

2. List the names of employees (lname, fname) who have a dependent with the same first name as themselves.

    $\prod_{LNAME, FNAME}(EMPLOYEE_{FNAME=DEPENDENT\_NAME}DEPENDENT)$

3. Retrieve the names of employees (lname, fname) in department 8 who work more than 10 hours per week on the 'RD' project.

    $TEMPA \longleftarrow \sigma_{HOURS=10}(WORKS\_ON)$
    $TEMPB \longleftarrow \sigma_{PNAME='RD'}(PROJECT)$
    $TEMPC \longleftarrow (TEMPA_{PNO=PNUMBER}TEMPB)$
    $RESULT \longleftarrow \prod_{LNAME, FNAME}(EMPLOYEE_{SSN=ESSN}TEMPC)$

4. Find the names of employees (lname, fname) who are directly supervised by 'Mary Huber'.

    $TEMP \longleftarrow \prod_{SSN}(\sigma_{FNAME='Mary', LNAME='Huber'}(EMPLOYEE))$
    $RESULT \longleftarrow \prod_{LNAME, FNAME}(\sigma_{SUPERSSN=TEMP}(EMPLOYEE))$