Expt. 3 23 June 2012

**Advanced SQL Operations**

**Queries:**

***1) Find name, address, bdate of employees who work for 'Administration' department.***

> select fname, minit, lname, address, bdate from employee join department on dno=dnumber where dname='Administration';

+----------+-------+---------+-------------------------+------------+

| fname | minit | lname | address | bdate |

+----------+-------+---------+-------------------------+------------+

| Jennifer | S | Wallace | 291 Berry, Bellaire, TX | 1941-06-20 |

| Ahmad | V | Jabbar | 980 Dallas, Houston, TX | 1969-03-29 |

| Alicia | J | Zelaya | 3321 Castle Spring , TX | 1968-07-19 |

+----------+-------+---------+-------------------------+------------+

***2)Find all employees who earn more than each employee of 'Research' department.***

> select fname,minit,lname from employee where salary > (select max(salary) from employee join department on dno=dnumber where dname='Research');

+----------+-------+---------+

| fname | minit | lname |

+----------+-------+---------+

| James | E | Borg |

| Jennifer | S | Wallace |

+----------+-------+---------+

***3)Retrieve last name of each employee who works on all projects controlled by 'Research' department.***

> select lname from employee, works\_on where ssn=essn and pno=all (select pnumber from department, project where dnumber=dnum and dname='Research') group by lname;

Empty set

***4) Find names of all employees who don't have supervisors***

> select fname, lname from employee where superssn is NULL;

+-------+-------+

| fname | lname |

+-------+-------+

| James | Borg |

+-------+-------+

***5) List names of managers who have atleast one dependent***

> (select fname,lname from employee join department on dnumber=dno where ssn=mgrssn)intersect(select fname,lname from employee join dependent on essn=ssn);

+----------+---------+

| fname | lname |

+----------+---------+

| Franklin | Wong |

| Jennifer | Wallace |

+----------+---------+

***6) For each department having greater than 2 employees, retrieve dept no and no of employees who earn greater than 40,000***

> select dno,count(dno) from employee where dno in

(select dno from department,employee where dno=dnumber group by dno having count(dno)>2 )

and salary>40000 group by dno

+------+------------+

| dno | count(dno) |

+------+------------+

| 4 | 1 |

+------+------------+

***7) Give all employees working on 'ProductX' project with 20% salary hike***

> select fname,lname,salary from employee;

+----------+---------+--------+

| fname | lname | salary |

+----------+---------+--------+

| John | Smith | 30000 |

| Franklin | Wong | 40000 |

| Joyce | English | 25000 |

| Ramesh | Narayan | 38000 |

| James | Borg | 55000 |

| Jennifer | Wallace | 43000 |

| Ahmad | Jabbar | 25000 |

| Alicia | Zelaya | 25000 |

+----------+---------+--------+

> update employee set salary=salary-0.2\*salary where ssn in (select ssn from employee,works\_on,project where ssn=essn and pno=pnumber and pname='ProductX'

> select fname,lname,salary from employee;

+----------+---------+--------+

| fname | lname | salary |

+----------+---------+--------+

| John | Smith | 24000 |

| Franklin | Wong | 40000 |

| Joyce | English | 20000 |

| Ramesh | Narayan | 38000 |

| James | Borg | 55000 |

| Jennifer | Wallace | 43000 |

| Ahmad | Jabbar | 25000 |

| Alicia | Zelaya | 25000 |

+----------+---------+--------+

***8) Find list of employees working on greater than 2 projects***

> select fname,lname, count(pnumber) as num\_projects from employee, works\_on, project where ssn=essn and pno=pnumber group by fname,lname having count(pnumber)>2

+----------+-------+--------------+

| fname | lname | num\_projects |

+----------+-------+--------------+

| Franklin | Wong | 4 |

+----------+-------+--------------+