

Lab 3 and 4 - SQL

Database System and Web Lab

Write the SQL queries for following questions:

1. Retrieve the birthdate and address of the employee(s) whose name is 'John B. Smith'.

```
SELECT Bdate, Address  
FROM Employee  
WHERE Fname="John" AND Minit="B" AND Lname="Smith";
```

2. Retrieve the name and address of all employees who work for the 'Research' department.

```
SELECT Fname, Lname, Address  
FROM Employee, Department  
WHERE Dname="research" AND Dnumber = Dno;
```

3. For every project located in 'Stafford', list the project number, the controlling department number, and the department manager's last name, address, and birthdate.

```
SELECT Pnumber, Dnum, Lname, Address, Bdate  
FROM Project, Department, Employee  
WHERE Dnum=Dnumber AND Mgr_ssn=Ssn AND  
Plocation="Stafford";
```

3. Retrieve all employees whose address is in Houston, Texas.

```
SELECT FNAME,LNAME
```

FROM EMPLOYEE
WHERE ADDRESS LIKE '%HOUSTON,TX%';

4. Show the resulting salaries if every employee working on the 'ProductX' project is given a 10 percent raise.

SELECT E.FNAME, E.LNAME, 1.1 * E.SALARY AS
INCREASED_SAL
FROM EMPLOYEE AS E, WORKS_ON AS W, PROJECT AS P
WHERE E.SSN=W.ESSN AND W.PNO=P.PNUMBER AND
P.PNAME="ProductX";

6. Retrieve all employees in department 5 whose salary is between \$30,000 and \$40,000.

Select *From Employee
Where DNO=5 and (salary between 30000 and 40000);

7. Retrieve a list of employees and the projects they are working on, ordered by department and, within each department, ordered alphabetically by last name, first name.

SELECT DNAME,LNAME,FNAME,PNAME
FROM DEPARTMENT,EMPLOYEE,WORKS_ON,PROJECT
WHERE DNUMBER =DNO AND SSN=ESSN AND
PNO=PNUMBER
ORDER BY DNAME DESC,LNAME ASC,FNAME ASC;

8. Retrieve the names of all employees who do not have supervisors.

SELECT FName, LName
FROM Employee
WHERE SUPER_SSN IS NULL;