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| Programme | : | **B.Tech** | Semester | : | **Winter 19 - 20** |
| Course | : | **Database Management Systems** | Code | : | **CSE2004** |
| Faculty | : | **Dr.Bhuvaneswari A&Dr.Ayesha Sheik** | Slot | : | **L27 + L28** |

**Registration No.: - 19BCE1603**

**Name: - Wilson Vidyut Doloy**

Ex. No. 5

20.12.2019

**SQL Joins**

Consider the following Company Schema.

**EMPLOYEE**(Fname, Lname, PAN, Bdate, Address, Gender, Salary, Dno)

**DEPTARTMENT**(Dname, Dnum, Mgr\_PAN)

**PROJECT**(Pname, Pnum, Plocation, Dnum)

**WORKSON**(EPAN, Pno, Hours)

**DEPENDENT**(EPAN, Dependent\_Name, age, gender, Relationship)

1. List the names of all employees who have a dependent with relationship Father-Son.
2. List the names of all employees in department 3 who work on the ProductX project.
3. List the employee name, Address, department name of employees who works in Research Department.
4. List the details employees who work on a project located in Houston.
5. List the names of employees who do not work on any project.
6. List the names of department managers who have no dependents.
7. List the department name, manager name, and manager salary for “Research” department.
8. List the employee name, supervisor name, and employee salary for each employee who works in the ‘Research’ department
9. Retrieve the names of all employees whose supervisor’s supervisor has ‘5555’ forPAN.
10. List the employee name and Salary of employee who works more than 10 hours in a week.

CREATE TABLE EMPLOYEE(

FNAME VARCHAR2(30),

LNAME VARCHAR2(30),

PAN NUMBER(15) PRIMARY KEY,

BDATE DATE,

ADDRESS VARCHAR2(50),

GENDER VARCHAR2(10),

SALARY NUMBER(10),

DNO NUMBER(20));

CREATE TABLE DEPARTMENT(

DNAME VARCHAR2(30),

DNUM NUMBER(10) PRIMARY KEY,

MGR\_PAN NUMBER(15));

CREATE TABLE PROJECT(

PNAME VARCHAR2(30),

PNUM NUMBER(10) PRIMARY KEY,

PLOCATION VARCHAR2(40),

DNUM NUMBER(10));

CREATE TABLE WORKSON(

EPAN NUMBER(10),

PNO NUMBER(10),

HOURS NUMBER(5));

ALTER TABLE WORKSON ADD PRIMARY KEY (EPAN, PNO);

CREATE TABLE DEPENDENT(

EPAN NUMBER(10),

DEPENDENT\_NAME VARCHAR2(30),

AGE NUMBER(3),

GENDER VARCHAR2(10),

RELATIONSHIP VARCHAR2(30));

ALTER TABLE DEPENDENT ADD PRIMARY KEY (EPAN, DEPENDENT\_NAME);

insert into EMPLOYEE values('John', 'B Smith',123456789,'09-JAN-55','California','M',30000,333445555);

insert into EMPLOYEE values('Franklin','T Wong',333445555,'08-DEC-45','London','M',40000,888665555);

insert into EMPLOYEE values('Alicia', 'J Zelaya',999887777,'19-JUL-85','Amsterdam','F',25000,987654321);

insert into EMPLOYEE values('Jennifer’, 'S Wallace', 987654321,'20-JUN-31','Australia','F',43000,888665555);

insert into EMPLOYEE values('Ramesh’, 'K Narayan', 666884444,'15-SEP-52','Paris','M',38000,333445555);

insert into EMPLOYEE values('Joyce', 'A English', 453453453,'31-JUL-62','Las Vegas','F',25000, 333445555);

insert into EMPLOYEE values('Ahmad', 'V Jabbar', 987987987,'29-MAR-59','Los Angeles','M',25000, 987654321);

insert into EMPLOYEE values(‘James', 'E Borg', 888665555, '10-NOV-27', 'Indiana', 'M', 55000, 987654321);

insert into DEPARTMENT values('Research',5 ,333445555);

insert into DEPARTMENT values('Administration', 4, 987654321);

insert into DEPARTMENT values('Headquarters', 1, 888665555);

insert into PROJECT values('ProductX',1,'Bellaire',5);

insert into PROJECT values('ProductY',2,'Sugarland',5);

insert into PROJECT values('ProductZ', 3, 'Houston', 5);

insert into PROJECT values('Computerization', 10, 'Stafford',4);

insert into PROJECT values('Reorganization', 20,'Houston', 1);

insert into PROJECT values('Newbenefits', 30,'Stafford', 4);

insert into DEPENDENT values(333445555,'Alice',22,'F','Daughter');

insert into DEPENDENT values(333445555,'Theodore',26,'M','Son');

insert into DEPENDENT values(333445555,'Joy',24,'F','Spouse');

insert into DEPENDENT values(987654321,'Abner',24,'M','Spouse');

insert into DEPENDENT values(123456789,'Michael',26,'M','Son');

insert into DEPENDENT values('123456789','Alice',21,'F','Daughter');

insert into DEPENDENT values('123456789','Elizabeth',25,'F','Spouse');

insert into WORKSON values (123456789,1,32);

insert into WORKSON values (123456789,2,7);

insert into WORKSON values (666884444,3,40);

insert into WORKSON values (453453453,1,20);

insert into WORKSON values (453453453,2,20);

insert into WORKSON values (333445555,2,10);

insert into WORKSON values (333445555,3,10);

insert into WORKSON values (333445555,10,10);

insert into WORKSON values (333445555,20,10);

insert into WORKSON values (999887777,30,30);

insert into WORKSON values (999887777,10,10);

insert into WORKSON values (987987987,10,35);

insert into WORKSON values (987987987,30,5);

insert into WORKSON values (987654321,30,20);

insert into WORKSON values (987654321,20,15);

**1)**

select fname from employee,dependent where employee.Dno=dependent.epan and relationship='Son';

FNAME

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Franklin

John

**2)**

select fname from employee,department,project where employee.pan=department.MGR\_PAN and department.dnum=project.dnum and pname=’Productx’ and department.dnum=3;

No result.

**3)**

select fname,address,dname from employee,department where employee.pan=department.mgr\_pan and dname='Research';

FNAME ADDRESS DNAME

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Franklin London Research

**4)**

select \* from employee,department,project where employee.pan=department.mgr\_pan and department.dnum=project.dnum and plocation='Houston';

FNAME LNAME PAN BDATE ADDRESS GENDER SALARY DNO DNAME DNUM MGR\_PAN PNAME PNUM PLOCATION

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Franklin T Wong 333445555 08-DEC-45 London M 40000 888665555 Research 5 333445555 ProductZ 3 Houston

James E Borg 888665555 10-NOV-27 Indiana M 55000 987654321 Headquarters 1 888665555 Reorganization 20 Houston

**5)**

select fname from employee minus (select fname from employee,department where employee.pan=department.mgr\_pan);

FNAME

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John

Alicia

Ramesh

Joyce

Ahmad

**6)**

select fname from employee ,department where department.mgr\_pan=employee.pan minus select fname from employee,department,dependent where employee.pan=department.mgr\_pan and employee.pan=dependent.epan;

FNAME

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James