

### 1. Find all employees who work on more than one project.

```
SELECT e.Fname, e.Lname
FROM Employee e
JOIN Works_on w ON e.SSN = w.ESSN
GROUP BY e.Fname, e.Lname
HAVING COUNT(DISTINCT w.Pno) > 1;
```

#	fname	Iname
1	Ahmad	Jabbar
2	Alicia	Zelaya
3	Franklin	Wong
4	Jennifer	Wallace
5	John	Smith
6	Joyce	English

# **2.** List the names of all employees who do not supervise anyone.

```
SELECT Fname, Lname
FROM Employee
WHERE SSN NOT IN (SELECT Super_ssn FROM Employee WHERE Super_ssn IS
NOT NULL);
```

#	fname	Iname
1	John	Smith
2	Alicia	Zelaya
3	Ramesh	Narayan
4	Joyce	English
5	Ahmad	Jabbar

# 3. Retrieve the names of all employees who work in the 'Research' department.

```
SELECT e.Fname, e.Lname
FROM Employee e
JOIN Department d ON e.Dno = d.Dnumber
WHERE d.Dname = 'Research';
```

#	fname	Iname
1	John	Smith
2	Franklin	Wong
3	Ramesh	Narayan
4	Joyce	English

### 4. Find the total number of hours each employee has worked across all projects.

SELECT e.Fname, e.Lname, SUM(w.Hours) AS Total\_Hours
FROM Employee e
JOIN Works\_on w ON e.SSN = w.ESSN
GROUP BY e.Fname, e.Lname;

#	fname	Iname	total_hours
1	Jennifer	Wallace	35.0
2	Joyce	English	40.0
3	John	Smith	40.0
4	James	Borg	16.0
5	Franklin	Wong	40.0
6	Ahmad	Jabbar	40.0
7	Alicia	Zelaya	40.0

# **5.** List the names of departments that operate in more than one location.

SELECT d.Dname
FROM Department d

JOIN Dept\_locations 1 ON d.Dnumber = 1.Dnumber
GROUP BY d.Dname
HAVING COUNT(DISTINCT 1.Dlocation) > 1;

#	dname
1	Research

#### **✓** 6. Find all projects located in 'Houston' that are handled by the 'Research' department.

```
SELECT p.Pname
FROM Project p
JOIN Department d ON p.Dnum = d.Dnumber
WHERE p.Plocation = 'Houston'
   AND d.Dname = 'Research';
```

```
# pname

1 ProductZ
```

#### 7. Display each employee's name and the number of dependents they have.

```
SELECT e.Fname, e.Lname, COUNT(d.Dependent_name) AS Dependent_Count
FROM Employee e
LEFT JOIN Dependent d ON e.SSN = d.ESSN
GROUP BY e.Fname, e.Lname;
```

#	fname	Iname	dependent_count
1	Jennifer	Wallace	1
2	Joyce	English	0
3	John	Smith	3
4	James	Borg	0
5	Franklin	Wong	3
6	Ahmad	Jabbar	0
7	Alicia	Zelaya	0

# **8.** Retrieve names of employees who have a dependent with the relationship 'Daughter'.

```
SELECT DISTINCT e.Fname, e.Lname
FROM Employee e
JOIN Dependent d ON e.SSN = d.ESSN
WHERE d.Relationship = 'Daughter';
```

#	fname	Iname
1	Franklin	Wong
2	John	Smith

## 9. List employees who have the same manager as 'John Smith'.

```
SELECT e.Fname, e.Lname
FROM Employee e
WHERE e.Super_ssn = (
    SELECT Super_ssn
    FROM Employee
    WHERE Fname = 'John' AND Lname = 'Smith'
)
AND NOT (e.Fname = 'John' AND e.Lname = 'Smith');
```

#	fname	Iname
1	Ramesh	Narayan
2	Joyce	English