

## Exp-07

## USING SET OPERATORS

-- Create tables

```
CREATE TABLE COUNTRIES (  
    country_id VARCHAR(2) PRIMARY KEY,  
    country_name VARCHAR(50)  
);
```

```
CREATE TABLE DEPARTMENTS (  
    department_id INT PRIMARY KEY,  
    department_name VARCHAR(50),  
    country_id VARCHAR(2),  
    FOREIGN KEY (country_id) REFERENCES COUNTRIES(country_id)  
);
```

```
CREATE TABLE JOBS (  
    job_id VARCHAR(10) PRIMARY KEY,  
    job_title VARCHAR(50)  
);
```

```
CREATE TABLE EMPLOYEES (  
    employee_id INT PRIMARY KEY,  
    last_name VARCHAR(50),  
    job_id VARCHAR(10),  
    department_id INT,  
    original_job_id VARCHAR(10),  
    FOREIGN KEY (job_id) REFERENCES JOBS(job_id),  
    FOREIGN KEY (department_id) REFERENCES DEPARTMENTS(department_id),  
    FOREIGN KEY (original_job_id) REFERENCES JOBS(job_id)  
);
```

-- Insert sample data

```
SELECT department_id FROM DEPARTMENTS
```

```
MINUS
```

```
SELECT DISTINCT department_id FROM EMPLOYEES WHERE job_id = 'ST_CLERK';
```

```
SELECT country_id, country_name FROM COUNTRIES
```

```
MINUS
```

```
SELECT DISTINCT c.country_id, c.country_name
```

```
FROM COUNTRIES c
```

```
JOIN DEPARTMENTS d ON c.country_id = d.country_id;
```

```
-- Jobs for department 10
```

```
SELECT job_id, department_id FROM EMPLOYEES WHERE department_id = 10
```

```
UNION ALL
```

```
-- Jobs for department 50
```

```
SELECT job_id, department_id FROM EMPLOYEES WHERE department_id = 50
```

```
UNION ALL
```

```
-- Jobs for department 20
```

```
SELECT job_id, department_id FROM EMPLOYEES WHERE department_id = 20;
```

```
SELECT employee_id, job_id
```

```
FROM EMPLOYEES
```

```
WHERE job_id = original_job_id
```

```
AND employee_id IN (
```

```
    SELECT employee_id FROM EMPLOYEES GROUP BY employee_id HAVING  
    COUNT(DISTINCT job_id) > 1
```

```
);
```

```
SELECT last_name, TO_CHAR(department_id) AS department_id_or_name
```

```
FROM EMPLOYEES
```

```
UNION ALL
```

```
SELECT NULL AS last_name, TO_CHAR(department_id) AS department_id_or_name  
FROM DEPARTMENTS;
```