EXERCISE-10

USING THE SET OPERATORS

1. The HR department needs a list of department IDs for departments that do not contain the job ID ST_CLERK. Use set operators to create this report.

```sql
-- Get all department IDs
SELECT Dept_id
FROM Department

MINUS

-- Get department IDs that contain the job ID 'ST_CLERK'
SELECT DISTINCT Department_id
FROM Employees
WHERE Job_id = 'ST_CLERK';
```

DEPT_ID
20
30
40
50
60
70
80
90

8 rows returned in 0.02 seconds Download

2. The HR department needs a list of countries that have no departments located in them. Display the country ID and the name of the countries. Use set operators to create this report.

```sql
-- Get all country IDs from the Location table
SELECT DISTINCT Country_id
FROM Location

MINUS

-- Get country IDs that have departments located in them
SELECT DISTINCT l.Country_id
FROM Location l
JOIN Department d ON l.Location_id = d.Location_id;
```

COUNTRY_ID
CA

1 rows returned in 0.00 seconds Download

3. Produce a list of jobs for departments 10, 50, and 20, in that order. Display job ID and department ID using set operators.

```sql
-- Get job IDs and department IDs for department 10
SELECT Job_id, Department_id
FROM Employees
WHERE Department_id = 10

UNION ALL

-- Get job IDs and department IDs for department 20
SELECT Job_id, Department_id
FROM Employees
WHERE Department_id = 50

UNION ALL

-- Get job IDs and department IDs for department 50
SELECT Job_id, Department_id
FROM Employees
WHERE Department_id = 20;
```

JOB_ID	DEPARTMENT_ID
ST_CLERK	10
ST_CLERK	10
ST_CLERK	10
ST_CLERK	10
10	20
10	20
50	20
50	20

8 rows returned in 0.01 seconds Download

4. Create a report that lists the employee IDs and job IDs of those employees who currently have a job title that is the same as their job title when they were initially hired by the company (that is, they changed jobs but have now gone back to doing their original job).

```sql
-- Subquery to get initial job titles
WITH Initial_Job AS (
    SELECT Employee_id, Job_id AS Initial_Job_id
    FROM (
        SELECT Employee_id, Job_id, ROW_NUMBER() OVER (
            PARTITION BY Employee_id ORDER BY Start_date ASC
            ) AS rn
        FROM Job_History
    )
    WHERE rn = 1
)

-- Main query to find employees who reverted to their initial job
SELECT e.Employee_id, e.Job_id
FROM Employees e
JOIN Initial_Job ij ON e.Employee_id = ij.Employee_id
WHERE e.Job_id = ij.Initial_Job_id;
```

```
no data found
```

5. The HR department needs a report with the following specifications:
   - Last name and department ID of all the employees from the EMPLOYEES table, regardless of whether or not they belong to a department.
   - Department ID and department name of all the departments from the DEPARTMENTS table, regardless of whether or not they have employees working in them Write a compound query to accomplish this.

```sql
-- Select last name and department ID from the EMPLOYEES table
SELECT Last_Name, Department_id
FROM Employees

UNION

-- Select department name and department ID from the DEPARTMENTS table
SELECT Dept_name AS Last_Name, Dept_id AS Department_id
FROM Department;
```

LAST_NAME	DEPARTMENT_ID
Administration	10
Brown	20
Clark	20
Davis	20
Doe	10
Finance	50
Garcia	30
HR	60
Hernandez	20
IT	40
Legal	70
Lewis	10