Experiment 3

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1. Aim:

a) You are given with employee table with only one attribute that is emp_id which contains different values. Find the maximum value for emp_id, but excluding the duplicate employee id's (only with sub-queries).

b) In a bustling corporate organization, each department strives to retain the most talented (and well-compensated) employees. You have access to two key records: one lists every employee along with their salary and department, while the other details the names of each department. Your task is to identify the top earners in every department.

c) Two legacy HR systems (A and B) have separate records of employee salaries. These records may overlap. Management wants to merge these datasets and identify each unique employee (by EmpID) along with their lowest recorded salary across both systems.

2. Objective:

- To understand how to use SubQueries in SQL.
- To understand the basic SQL Queries.
- To generate hierarchical reports from self-referencing tables.

3. DBMS script and output:

```
-- Easy
 CREATE TABLE Employeee (
    EmpID INT ,

);
INSERT INTO Employeee (EmpID) VALUES
(2),
(4 ),
(4),
(6),
(6),
(7),
(8),
(8);
Select Max(EmpID) as [Maximum ID] from (Select EmpID from Employeee Group by EmpID having Count(*) < 2)as Subquery;


--Medium
CREATE TABLE departmentt (
    id INT PRIMARY KEY,
    dept_name VARCHAR(50)
);
CREATE TABLE employeeee (
    id INT,
    name VARCHAR(50),
    salary INT,
    department_id INT,
    FOREIGN KEY (department_id) REFERENCES departmentt(id)
);
INSERT INTO departmentt (id, dept_name) VALUES
(1, 'IT'),
(2, 'SALES');
INSERT INTO employeeee (id, name, salary, department_id) VALUES
(1, 'JOE', 70000, 1),
(2, 'JIM', 90000, 1),
(3, 'HENRY', 80000, 2),
(4, 'SAM', 60000, 2),
(5, 'MAX', 90000, 1);
Select d.dept_name,e.name,e.salary from departmentt as d Join employeeee as e on d.id = e.department_id where e.salary in (
Select max(e2.salary) from employeeee as e2 where e2.department_id = e.department_id);
```

```
--Hard
create table A1 (ID int , Ename varchar(50), Salary int);
Create Table B1(ID int, Ename varchar(50), Salary int );
Insert into A1 values(1,'AA',1000);
Insert into A1 values(2,'BB',300);
Insert into B1 values(2,'BB',400);
Insert into B1 values(3,'CC',100);

Select ID, EName, Min(Salary) as Min_Salary from
(Select * from A1 Union All Select* from  B1) as combined Group by Ename,ID;
```

4. Learning outcomes:

- You will be able to write basic SQL queries.
- You will learn to perform SubQueries in SQL.