Experiment 3

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Subject Name: ADBMS

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1. Aim:

1. Generate an employee relation with only one attribute i.e., EMP_ID. Then, find the max EMP_ID, but excluding the duplicates.
2. 2. Create two tables, Department(ID, name) and Employees(ID, name, salary, deptID). Then output the highest earners from each department.
3. 3. Create two tables A and B with the attributes (EmpID, EmpName, Salary) and output the lowest salary of each employee across the two tables.Objective:

2. Requirements (Hardware/Software):

My SQL server

3. DBMS script and output:

1.
```
CREATE TABLE EmployeeSingle (EMP_ID INT);
INSERT INTO EmployeeSingle (EMP_ID) VALUES
(101), (101), (102), (103), (103), (104), (100), (100);
SELECT * FROM EmployeeSingle;
SELECT MAX(EMP_ID) AS MaxDistinctEmpID
FROM (SELECT DISTINCT EMP_ID FROM
EmployeeSingle) AS distinct_ids;
```

```
+------------------+
| MaxDistinctEmpID |
+------------------+
|              104 |
+------------------+
```

2. CREATE TABLE Department (ID INT PRIMARY KEY,Name VARCHAR(50));
CREATE TABLE Employees (ID INT PRIMARY KEY,Name VARCHAR(50),Salary INT,DeptID INT, FOREIGN KEY (DeptID) REFERENCES Department(ID));
INSERT INTO Department (ID, Name) VALUES(1, 'IT'),(2, 'HR'),(3, 'Sales'),(4, 'Finance');
INSERT INTO Employees (ID, Name, Salary, DeptID) VALUES
(201, 'Rahul Sharma', 90000, 1),
(202, 'Priya Kapoor', 120000, 1),
(203, 'Sanjay Verma', 80000, 2),
(204, 'Meena Iyer', 80000, 2),
(205, 'Amit Joshi', 110000, 3),
(206, 'Sneha Rao', 110000, 3),
(207, 'Rohit Gupta', 95000, 4);
SELECT * FROM Department;
SELECT * FROM Employees;
SELECT d.Name AS Department,e.ID AS EmployeeID,e.Name AS EmployeeName,e.Salary
FROM Employees e JOIN Department d ON e.DeptID = d.ID
JOIN (SELECT DeptID, MAX(Salary) AS MaxSalary FROM Employees
GROUP BY DeptID) AS m ON e.DeptID = m.DeptID AND e.Salary = m.MaxSalary
ORDER BY d.ID, e.ID;

Department	EmployeeID	EmployeeName	Salary
IT	202	Priya Kapoor	120000
HR	203	Sanjay Verma	80000
HR	204	Meena Iyer	80000
Sales	205	Amit Joshi	110000
Sales	206	Sneha Rao	110000
Finance	207	Rohit Gupta	95000

3.
```
CREATE TABLE A (
  EmpID INT,
  EmpName VARCHAR(50),
  Salary INT);
CREATE TABLE B (
  EmpID INT,
  EmpName VARCHAR(50),
  Salary INT);
INSERT INTO A (EmpID, EmpName, Salary) VALUES
(301, 'Anita Mehra', 75000),
(302, 'Vikram Singh', 85000),
(303, 'Leena Desai', 60000),
(304, 'Arjun Patel', 90000);
INSERT INTO B (EmpID, EmpName, Salary) VALUES
(301, 'Anita Mehra', 70000),
(302, 'Vikram Singh', 90000),
(305, 'Kavya Nair', 55000),
(304, 'Arjun Patel', 88000);
SELECT * FROM A ORDER BY EmpID;
SELECT * FROM B ORDER BY EmpID;
SELECT
  EmpID,
  EmpName,
  MIN(Salary) AS LowestSalaryAcrossAandB
FROM (
  SELECT EmpID, EmpName, Salary FROM A
  UNION ALL
  SELECT EmpID, EmpName, Salary FROM B
) AS combined
GROUP BY EmpID, EmpName
ORDER BY EmpID;
```

EmpID	EmpName	LowestSalaryAcrossAandB
301	Anita Mehra	70000
302	Vikram Singh	85000
303	Leena Desai	60000
304	Arjun Patel	88000
305	Kavya Nair	55000