### **Experiment 3**

Student Name: Gaurav Singh UID: 23BCS12992

Branch: BE CSE Section/Group: KRG-1-A

Semester: 5 Date of Performance: 14-8-25

Subject Name: ADBMS Subject Code: 23CSP-333

#### 1. Aim:

- **Q.1.** Generate an employee relation with only one attribute i.e., EMP\_ID. Then, find the max EMP ID, but excluding the duplicates.
- **Q.2.** Create two tables, Department(ID, name) and Employees(ID, name, salary, deptID). Then output the highest earners from each department.
- **Q.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.

# 2. Requirements (Hardware/Software):

Microsoft SQL server

### 3. Procedure:

```
Q.1. Code:

CREATE TABLE TBL_EMPLOYEE(
    EMP_ID INT
);
INSERT INTO TBL_EMPLOYEE VALUES (2),(4),(4),(6),(6),(7),(8),(8);

SELECT MAX(EMP_ID) as [Greatest Unique ID] FROM TBL_EMPLOYEE WHERE EMP_ID IN
(SELECT EMP_ID FROM TBL_EMPLOYEE GROUP BY EMP_ID HAVING COUNT(EMP_ID)=1);
```

```
Q.2. Code:
CREATE TABLE department (
id INT PRIMARY KEY,
dept name VARCHAR(50)
);
-- Create Employee Table CREATE
TABLE employee (
  id INT,
  name VARCHAR(50),
  salary INT,
department id INT,
  FOREIGN KEY (department id) REFERENCES department(id)
);
-- Insert into Department Table
INSERT INTO department (id, dept name) VALUES
(1, 'IT'),
(2, 'SALES');
-- Insert into Employee Table
INSERT INTO employee (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, d.id from employee as e inner join
department as D on e.department id=d.id where e.salary in (Select
max(salary) from employee group by department id);
Q.3. Code:
create table tbl A ( empid
int PRIMARY key,
empname varchar(20),
salary int
insert into tbl A values (1,'AA',1000), (2, 'BB',300);
create table tbl B (empid int PRIMARY key,
```

empname varchar(20), salary int

)

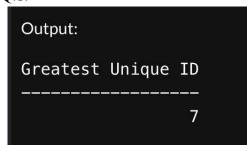
```
select empid, min(empname) as empname, min(salary) as min_salary from (select * FROM tbl_A UNION select * from tbl_b) as UNI group by
```

insert into tbl B values (2, 'BB',400), (3,'CC',100);

## 4. Output:

empid;

Q.1.



O.2.

Output:	
dept_name	name
IT	JIM
IT CALES	MAX
SALES	HENRY

Q.3.

Output:		
empid	empname	min_salary
1	AA	1000
2	BB	300
3	CC	100

# 5. Learning Outcome:

- Understand the role of sub-queries in simplifying complex SQL operations.
- Apply sub-queries in SELECT, WHERE, and FROM clauses to retrieve specific data.

- Utilize sub-queries for filtering, aggregation, and conditional logic.
- Analyze query performance implications when using sub-queries versus joins.