Experiment – 1

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Subject Name: ADBMS	Subject Code: 23CSP-333

1. Aim:

- Q1) To understand and implement subqueries in MySQL for solving complex database queries.
- Q2) 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.

If multiple employees share the same highest salary within a department, all of them should be celebrated equally. The final result should present the department name, employee name, and salary of these top-tier professionals arranged by department.

Q3) legacy HR systems ,a and b, have seperate records of employee salaries. these records may overlap. management wnts to merge these 2 datasets and identify each unique employee(by empid) along with lowest recorded salary across both systems.

objective:

- 1) combine both tables a and b using join
- 2) return each empid with their lowest salary and corresponding ename

2. DBMS code:

Q1)

```
--MADE BY YASH SHARMA

USE KRG_1B

create table employee (
   emp_id int,
   empname varchar(50),
   gender varchar(10),
   salary int,
   city varchar(50),
```

```
dept_id int
  );
  insert into employee(emp_id, empname, gender, salary, city, dept_id)
  (1, 'amit', 'male', 50000, 'delhi', 2),
 (2, 'priya', 'female', 60000, 'mumbai', 1),
(3, 'rajesh', 'male', 45000, 'agra', 3),
(4, 'sneha', 'female', 55000, 'delhi', 4),
(5, 'anil', 'male', 52000, 'agra', 2),
 (6, 'sunita', 'female', 48000, 'mumbai', 1), (7, 'vijay', 'male', 47000, 'agra', 3), (8, 'ritu', 'female', 62000, 'mumbai', 2), (8, 'alok', 'male', 51000, 'delhi', 1), (9, 'neha', 'female', 53000, 'agra', 4), (9, 'simran', 'female', 33000, 'agra', 3);
  SELECT MAX(emp_id) AS id
  FROM (
       SELECT emp id
       FROM employee
       GROUP BY emp_id
       HAVING COUNT(emp_id) = 1
           ) AS unique_emp_ids;
  -- MADE BY YASH SHARMA
Q2)
  -- MADE BY YASH SHARMA
  USE KRG_1B
  CREATE TABLE employees (
       id INT,
       name VARCHAR(50),
       salary INT,
       dept_id INT
  );
  CREATE TABLE departments (
       id INT,
       dept_name VARCHAR(50)
  );
  INSERT INTO employees VALUES (1, 'joe', 70000, 1);
  INSERT INTO employees VALUES (2, 'jim', 90000, 1);
  INSERT INTO employees VALUES (3, 'henry', 80000, 2);
  INSERT INTO employees VALUES (4, 'sam', 60000, 2);
INSERT INTO employees VALUES (4, 'max', 90000, 1);
  INSERT INTO departments VALUES (1, 'it');
  INSERT INTO departments VALUES (2, 'sales');
  SELECT d.dept_name, e.name, e.salary
  FROM employees e
  JOIN departments d ON e.dept_id = d.id
  WHERE e.salary = (
```

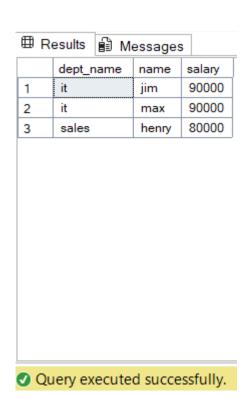
```
SELECT MAX(salary)
      FROM employees e2
     WHERE e2.dept_id = e.dept_id
 )
        ORDER BY d.dept_name;
 --MADE BY YASH SHARMA
Q3)
 --MADE BY YASH SHARMA
 USE KRG_1B
 CREATE TABLE A (
     EmpID INT,
     Ename VARCHAR(20),
      Salary INT
 );
 CREATE TABLE B (
     EmpID INT,
      Ename VARCHAR(20),
      Salary INT
 );
 INSERT INTO A VALUES (1, 'xyza', 1000);
 INSERT INTO A VALUES (2, 'bcde', 300);
 INSERT INTO B VALUES (2, 'bcde', 400);
INSERT INTO B VALUES (1, 'xyza', 100);
 SELECT EmpID, Ename, MIN(Salary) AS Salary
 FROM (
      SELECT * FROM A
     UNION ALL
     SELECT * FROM B
 ) merged
 GROUP BY EmpID, Ename
 ORDER BY EmpID;
 --MADE BY YASH SHARMA
```



3. Output: Q1)



Q2)



Q3)

