



Experiment 3

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Semester: 5th

Subject Name: ADBMS

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Date of Performance: 21/08/2025

Subject Code: 23CSP-333

1. Aim: To design and implement SQL queries for employee data analysis, which include:

- a) Determining the second highest employee ID from the Employee table using subqueries and aggregate functions.
- b) Retrieving the highest-paid employees in each department, ensuring all employees with the maximum salary are included.
- c) Merging salary records from multiple HR systems to identify each unique employee (by EmpID) with their lowest recorded salary.

2. Objective:

- To create and manage employee data using SQL.
- To find the second highest employee ID using subqueries and aggregate functions.
- To retrieve the highest-paid employees from each department.
- To merge salary records from multiple HR systems.
- To identify each unique employee with their lowest recorded salary.

3. DBMS script and output:

Solution-(a)

```
CREATE DATABASE CompanyDB;
```

```
USE CompanyDB;
```

```
CREATE TABLE Employee (
```

```
    EMP_ID INT
```

```
);
```

```
INSERT INTO Employee (EMP_ID) VALUES
```

```
(2),
```

```
(4),
```

```
(4),
```



(6),

(6),

(7),

(8),

(8),

(8);

SELECT MAX(EMP_ID) AS SecondHighest

FROM Employee

WHERE EMP_ID < (SELECT MAX(EMP_ID) FROM Employee);

	SecondHighest	
	7	

Solution-(b)

CREATE DATABASE CompanyDB2;

USE CompanyDB2;

CREATE TABLE department (

id INT PRIMARY KEY,

dept_name VARCHAR(50)

);

CREATE TABLE employee (

id INT,

name VARCHAR(50),

salary INT,

department_id INT,

[illegible]



Solution-(c)

```
CREATE DATABASE CompanyDB3;
```

```
USE CompanyDB3;
```

```
CREATE TABLE a (
```

```
    empid INT,
```

```
    ename VARCHAR(50),
```

```
    salary INT
```

```
);
```

```
INSERT INTO a VALUES
```

```
(1, 'AA', 1000),
```

```
(2, 'BB', 300);
```

```
CREATE TABLE b (
```

```
    empid INT,
```

```
    ename VARCHAR(50),
```

```
    salary INT
```

```
);
```

```
INSERT INTO b VALUES
```

```
(2, 'BB', 400),
```

```
(3, 'CC', 100);
```

```
select * from a;
```

```
select * from b;
```

```
SELECT empid, ename, MIN(salary) AS salary
```

```
FROM (
```

```
    SELECT * FROM a
```

```
    UNION ALL
```

```
    SELECT * FROM b
```

GROUP BY empid, ename;

[illegible]

4. Learning Outcomes (What I have Learnt):

- Understand how to create and manipulate tables in SQL.
- Gain skills in using subqueries and aggregate functions to solve analytical queries.
- Learn to retrieve top-performing employees based on salary within departments.
- Acquire knowledge of merging datasets from multiple sources in SQL.
- Develop the ability to derive meaningful insights like lowest salary or second highest ID from employee data.