University Institute of Engineering

Department of Computer Science & Engineering

Experiment: 5

Student Name: Jagrath **UID:24BDA70365**

Branch: CSE **Section/Group: AIT-KRG-GP2**

Semester: 4th **Date of Performance:27/02/2026**

Subject Name: DBMS

1. **Aim of the practical:** To understand and apply conditional logic in SQL by using the modulus operator (MOD / %) to analyze numerical data and classify employee salaries as odd or even, thereby improving data analysis and decision-making skills in SQL.

2. Tool Used:

- **Database Management System:**
  - **PostgreSQL**
- **Database Administration Tool:**
  - **pgAdmin**

3. **Objective:**
   To write and execute SQL queries that use the MOD (%) operator to check employee salaries and display odd and even salary values separately from an employee table.

4. Practical / Experimental Steps

Step 1: Open Oracle SQL Developer or pgAdmin and connect to the database.

Step 2: Create the Employee table with required attributes.

Step 3: Insert multiple records into the Employee table.

Step 4: Write a SELECT query using CASE statement and MOD (%) operator to classify salaries as odd or even.

Step 5: Execute the query and observe the output.

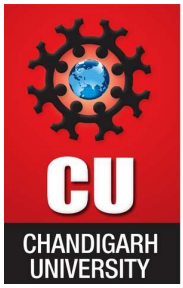
Step 6: Verify the correctness of results.

5. I / O Analysis

DATABASE DESIGN

Query to create Table employee :

```
CREATE TABLE Employee(
emp_id INT PRIMARY KEY,
name VARCHAR(50) NOT NULL,
Salary INT NOT NULL
);
```



University Institute of Engineering

Department of Computer Science & Engineering

DATA MANIPULATION

Insert Sample records in the table

```
INSERT INTO Employee (emp_id, name, Salary) VALUES
(1,  'Amit Sharma',     50000),
(2,  'Priya Verma',     45575),
(3,  'Rahul Mehta',     62000),
(4,  'Sneha Kapoor',    38745),
(5,  'Vikram Singh',    71000),
(6,  'Anjali Desai',    53211),
(7,  'Rohan Gupta',     48000),
(8,  'Neha Reddy',      39999),
(9,  'Karan Malhotra',  84500),
(10, 'Isha Nair',       36781),
(11, 'Arjun Patel',     90000),
(12, 'Meera Joshi',     42133),
(13, 'Siddharth Rao',   76000),
(14, 'Pooja Bansal',    58917),
(15, 'Manish Yadav',    64000);
```

```
INSERT 0 15

Query returned successfully in 61 msec.
```

C) Query to Display Even and Odd Salaries

```
SELECT emp_id,
    name,
    salary,
    CASE
      WHEN MOD(salary, 2) = 0 THEN 'Even Salary'
      ELSE 'Odd Salary'
    END AS salary_type
FROM Employee;
```

	emp_id [PK] integer	name character varying (50)	salary integer	salary_type text
1	1	Amit Sharma	50000	Even Salary
2	2	Priya Verma	45575	Odd Salary
3	3	Rahul Mehta	62000	Even Salary
4	4	Sneha Kapoor	38745	Odd Salary
5	5	Vikram Singh	71000	Even Salary
6	6	Anjali Desai	53211	Odd Salary
7	7	Rohan Gupta	48000	Even Salary
8	8	Neha Reddy	39999	Odd Salary
9	9	Karan Malhotra	84500	Even Salary
10	10	Isha Nair	36781	Odd Salary
11	11	Arjun Patel	90000	Even Salary
12	12	Meera Joshi	42133	Odd Salary
13	13	Siddharth Rao	76000	Even Salary
14	14	Pooja Bansal	58917	Odd Salary
15	15	Manish Yadav	64000	Even Salary

6. Learning outcomes (What I have learnt):

- Understood how to create and manage tables in SQL.
- Learned how to insert multiple records into a database table.
- Gained practical knowledge of using the MOD (%) operator for numerical analysis.
- Learned to apply conditional logic using CASE statements in SQL queries.
- Developed the ability to classify and analyze data directly within SQL queries.
- Improved understanding of SQL-based decision-making and data filtering techniques.