DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



Discover. Learn. Empower.

Assignment -2.1

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Subject: DBMS Semester: 5th

Section: KRG - 3B Date of performance: 27th July 2025

Branch: BE - CSE

1.1 Medium problem:

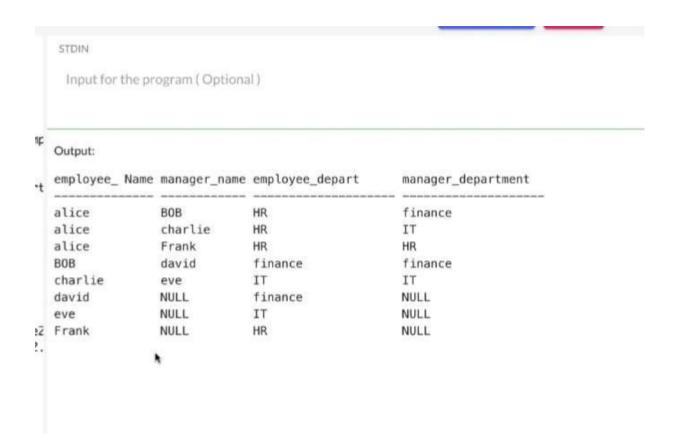
1: AIM:

- -- Write an SQL query using a self join to:
- -- Select the employee's name, aliased as employee_name
- -- Select the manager's name, aliased as manager_name
- -- Select the employee's department, aliased as employee_department
- -- Select the manager's department, aliased as manager_department
- -- Include all employees, even if they do not have a manager
- -- Use a LEFT OUTER JOIN between the employee table and itself, with the correct join condition.

2:CODE

```
create table employee( e id int primary key, name
varchar(10), department varchar(20), manager id int,
foreign key (manager id) references employee
(e_id),
);
insert into employee(e id, name, department, manager id)
values
(1, 'alice', 'HR', NULL),
(2, 'BOB', 'finance', 1),
(3,'charlie','IT', 1),
(4, 'david', 'finance', 2),
(5, 'eve', 'IT', 3),
(6, 'Frank', 'HR', 1);
select e1.name as [employee Name] ,e2.name as[manager name]
e1.department as[employee depart],
e2.department as[manager_department] from
employee as e1
left outer join
employee e2
on
e1.e id= e2.manager id;
```

3: OUTPUT:



4: LEARNING OUTCOME:

- Understand how to create self-referencing foreign keys to represent hierarchical relationships (e.g., employee-manager).
- Learn to use table aliases when joining a table with itself.
- Apply LEFT OUTER JOIN to retrieve all records from one table even if there's no matching record in the joined table.
- Retrieve employee-manager relationships along with their respective departments.
- Understand how to model and query organizational structures using SQL.