Experiment- 2.1

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1. **Aim:**

   To design and implement a self-referencing employee database that stores hierarchical relationships between employees and their managers, and to retrieve manager-employee details using a self-join query.

2. **Objective:**

   Table Creation – Create the Employee table with fields for employee details and a ManagerID column referencing the same table to model reporting relationships.

   Relationship Establishment – Implement a foreign key constraint (FK_Manager) to enforce referential integrity for the manager-employee relationship.

   Data Insertion – Populate the table with sample hierarchical employee data, representing departments and manager assignments.

   Self-Join Query – Use a self-join to retrieve employees along with their respective managers and departments.

   Data Organization – Present results in a structured format to facilitate understanding of the organizational hierarchy.

3. **DBMS script and output:**

```
CREATE TABLE Employee (
    EmpID INT PRIMARY KEY,
    EmpName VARCHAR(50) NOT NULL,
    Department VARCHAR(50) NOT NULL,
    ManagerID INT NULL
);

ALTER TABLE Employee
ADD CONSTRAINT FK_Manager FOREIGN KEY (ManagerID) REFERENCES
Employee(EmpID);

INSERT INTO Employee (EmpID, EmpName, Department, ManagerID)
VALUES
(1, 'Kakashi', 'Hokage Office', NULL),
```

```
(2, 'Naruto', 'Mission Desk', 1),
(3, 'Sasuke', 'Intel Division', 1),
(4, 'Shikamaru', 'Mission Desk', 2),
(5, 'Itachi', 'Intel Division', 3),
(6, 'Sakura', 'Hokage Office', 1);

SELECT
E.EmpName AS EmployeeName,
E.Department AS EmployeeDept,
M.EmpName AS ManagerName,
M.Department AS ManagerDept
FROM Employee AS E
JOIN Employee AS M
ON E.ManagerId = M.EmpID;
```

	EmployeeName	EmployeeDept	ManagerName	ManagerDept
1	Naruto	Mission Desk	Kakashi	Hokage Office
2	Sasuke	Intel Div...	Kakashi	Hokage Office
3	Shikamaru	Mission Desk	Naruto	Mission Desk
4	Itachi	Intel Div...	Sasuke	Intel Divi...
5	Sakura	Hokage Of...	Kakashi	Hokage Office