Usecase ÷ Task - 12

Apply basic designing methodologies

Aim ÷ To demonstrate how data is accessed, initialized, and manipulated within a relational database using SQL queries and logical steps.

Algorithm ÷

1. Access Phase:
   - Connect to the database
   - Identify the target table

```
USE college DB;
SELECT * FROM students;
```

2. Initialization Phase:
   - setup the environment or temporary structures
   - Define conditions, projections, joins, etc

```
SELECT Name, Age FROM students WHERE Grade = 'A';
```

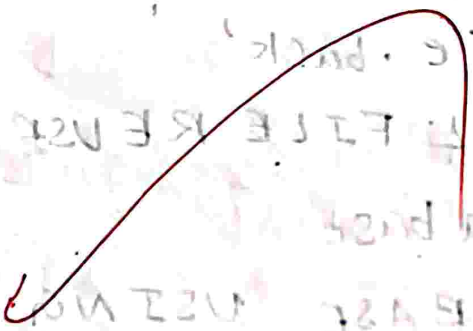
3. Manipulation Phase:
   - Perform updates, insertions, deletions, or computed queries

```
UPDATE students SET Grade = 'A+' WHERE Name = 'Alice';
INSERT INTO students (ID, Name, Age, Grade)
VALUES (4, 'David', 23, 'B');
DELETE FROM students WHERE ID = 2;
```

Input:

Table: students

ID	Name	Age	Grade
1	Alice	20	A
2	Bob	22	B
3	Charlie	21	A



- Output Examples:

Ex ÷ 1

Returns all rows from students table

Ex ÷ 2

Updates Alice's grade to A+ and removes Bob from the table.

Pseudo code

```
BEGIN
  CONNECT TO CollegeDB;
    -- ACCESS
    SELECT * FROM Students;

    -- INITIALIZATION
  SET Resultset = SELECT Name, Age FROM
                  Students WHERE Grade = 'A';

  --MANIPULATION
   UPDATE Students SET Grade = 'A+' WHERE
                               Name = 'Alice';

   INSERT INTO students VALUES (4, 'David', 23, 'O');
   DELETE FROM Students WHERE ID = 2;
   END;
```

VEL TECH - CSE	
EX NO.	12
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	5
VIVA VOCE (3)	5
RECORD (4)	
TAL (15)	15

RESULT: Thus the task completed successfully.