

11.3/10/25

Task 10: CRUD operations in document databases.

Aim: To perform CRUD operations in document databases.

College Management Database in SQL.

Step 1: Create Database.

```
CREATE DATABASE CollegeDB;
```

```
USE CollegeDB;
```

Step 2: Create Tables.

```
CREATE TABLE Students (
```

```
    student_id INT PRIMARY KEY AUTO_INCREMENT,  
    name VARCHAR(100),  
    roll_no VARCHAR(20) UNIQUE,  
    department VARCHAR(50),  
    age INT
```

```
);
```

```
CREATE TABLE Courses (
```

```
    course_id INT PRIMARY KEY AUTO_INCREMENT,  
    course_name VARCHAR(100),  
    course_code VARCHAR(20) UNIQUE,  
    credits INT
```

```
);
```

```
CREATE TABLE Staff (
```

```
    staff_id INT PRIMARY KEY AUTO_INCREMENT,
```

```
name VARCHAR (100),  
role VARCHAR (50),  
department VARCHAR (50)  
);
```

Step 3: Insert records.

```
INSERT INTO students (name, roll-no, department,  
age).
```

```
VALUES ('Alice Johnson', 'S101', 'Computer science',  
20);
```

```
INSERT INTO students (name, roll-no, department,  
age).
```

```
('Bob Smith', 'S102', 'Mechanical', 21),  
( 'Charlie Brown', 'S103', 'Civil', 19);
```

Courses
INSERT INTO courses (course-name, course-code,
credits).

VALUES.

```
('Database System', 'CS301', 4),  
( 'Thermodynamics', 'M6201', 3),  
( 'Structural Analysis', 'CE101', 4);
```

Staff

```
INSERT INTO staff (name, role, department)
```

VALUES.

```
( 'Dr. Smith', 'professor', 'Computer science'),  
( 'Dr. John', 'Lecturer', 'Mechanical'),  
( 'Dr. Anne', 'HOD', 'Civil');
```

Step 4: Read /Query Records

Select * from students where department =
'Computer science';

S.no.	Name	Roll-no	department	age
1.	Alice Johnson	S101	Computer science	20.

Select * from students courses. where . credits = 4;

S.no.	Course - name	Course - code	Credits
1.	Database systems.	SS301	4.
2.	Structural Analysis	CE101	4.

Step 5: Update Records

UPDATE students

SET age = 21.

WHERE roll-no = 'S101';

UPDATE courses

SET credits = 4.

WHERE course-code = 'ME201';

Step 6: Delete Records.

DELETE from students WHERE roll-no = 'S103';

DELETE from courses WHERE course-code = 'CE101';

DELETE from staff WHERE name = 'Dr. John';

VEL TECH	
EX NO.	10
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	15
SIGN WITH DATE	13/9/19

Result: Thus, the CRUD operations in document databases is executed successfully.