

10. 13/10/25 CRUD operations in document databases

18

(not done)
13/10/25

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 College DB;
```

```
USE college DB;
```

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);

~~VALUES~~

('Bob Smith', '5102', 'Mechanical', 21);
('Charlie Brown', '5103', 'Civil', 19);

Courses

INSERT INTO courses (course-name, course-code, credits);
VALUES

('DATABASE SYSTEM', 'CS301', 4),
(('Thermodynamics', 'ME201', 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	5101	Computer Science	20

Select * from courses Where credits = '4';

S.No.	Course-name	course-code	Credits
1	Database systems	CS301	4
2	Structural Analysis	CE101	4

Step-5: Update Records

UPDATE students

SET age = 21

WHERE roll-no = '5101';

UPDATE courses

SET credits = 4

WHERE course-code = 'ME201';

Step-6: Delete Records

```
DELETE FROM students WHERE roll-no = '5103';  
DELETE FROM courses WHERE course-code = 'C6101';  
DELETE FROM staff WHERE name = 'Dr. John';
```

VEL TECH - CSE	
EX NO.	10
PERFORMANCE (5)	95
RESULT AND ANALYSIS (5)	95
VIVA VOCE (5)	5
RECORD (5)	
TOTAL (20)	15
SIGN WITH DATE	13/09/2023

Result:-

Thus, the ~~CRUD~~ operations in document databases are executed successfully.