

DATE : 13/10/25

## Task 10: CRUD OPERATION: IN DOCUMENT DATABASES

AIM: To 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)
```

```
  rollno 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)
('Bob Smith', 's102', 'mechanical', 21), ('charlie Brown',
's103', 'civil', 19);
```

~~Courses:~~

```
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', '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', 'AOD', 'civil');
```

Step 4: Read / Query Records.

```
select * from students where department
computer science;
```

Sno	Name	Roll no	department	age
1	Alice Johnson	S101	computer science	20

select \* from courses where credits = 4;

sno	course-name	course-code	Credits
1	data base systems	CS301	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 student WHERE Roll no = 'S103';

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

DELETE FROM

staff WHERE Name = 'Dr. John';

PERFORMANCE (5)	10
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	46
SIGN WITH DATE	13/10/20

Result: Thus, the CRUD operation is executed successfully in the database document.