DBMS Lab 2 – Q2 (SQL)

Create Student table.

```
CREATE TABLE Student (
   Std_rollno INT PRIMARY KEY,
   Std_name VARCHAR(50),
   Dept VARCHAR(50),
   Course1 CHAR(50),
   Course2 CHAR(50),
   Course3 CHAR(50),
   Course4 CHAR(50)
);
```

a. Insert at least 5 student records into the Student table.

```
INSERT INTO Student (Std_rollno, Std_name, Dept, Course1, Course2, Course3,
Course4) VALUES
(1, 'John Doe', 'CSE', 'DBMS', 'OS', 'DS', 'Maths'),
(2, 'Jane Smith', 'ECE', 'Signals', 'Networks', 'Electronics', 'Maths'),
(3, 'Alice Johnson', 'MECH', 'Thermo', 'Fluid', 'Mechanics', 'Maths'),
(4, 'Bob Brown', 'CIVIL', 'Structures', 'Geo', 'Hydraulics', 'Maths'),
(5, 'Charlie Davis', 'EEE', 'Circuits', 'EMF', 'Power', 'Maths');
```

b. Delete Course2 and Course3 attributes from the Student table.

```
ALTER TABLE Student
DROP COLUMN Course2;

ALTER TABLE Student
DROP COLUMN Course3;
```

c. Insert two new columns DoB and email into the Student table.

```
ALTER TABLE Student
ADD DoB DATE NOT NULL,
ADD email VARCHAR(50) CONSTRAINT email_format CHECK (email LIKE '%@nitt.edu');
```

d. Change Course1 datatype to varchar2.

```
ALTER TABLE Student
MODIFY Course1 VARCHAR2(50);
```

e. Update the column name ‘Std_rollno’ to ‘Std_rno’.

```
ALTER TABLE Student
RENAME COLUMN Std_rollno TO Std_rno;
```

f. Update all student records who pursue a course named “DBMS” to “OS”.

```
UPDATE Student
SET Course1 = 'OS'
WHERE Course1 = 'DBMS';
```

g. Delete a student record with student name starting with letter ‘S’.

```
DELETE FROM Student
WHERE Std_name LIKE 'S%';
```

h. Display all records in which a student has born after the year 2005.

```
SELECT * FROM Student
WHERE DoB > '2005-12-31';
```

i. Simulate RENAME, COMMENT, TRUNATE and DROP.

```
DROP TABLE Student;

-- Recreate the table to simulate TRUNCATE
CREATE TABLE Student (
   Std_rno INT PRIMARY KEY,
   Std_name VARCHAR(50),
   Dept VARCHAR(50),
   Course1 VARCHAR2(50),
   Course4 CHAR(50),
   DoB DATE NOT NULL,
   email VARCHAR(50) CONSTRAINT email_format CHECK (email LIKE '%@nitt.edu
')
);

-- Simulate TRUNCATE
TRUNCATE TABLE Student;
```