LAB-1

SQL Operators (AND, OR & NOT) AND KEYWORDS

Theory: The WHERE clause can be combined with AND, OR, and NOT operators.

The AND and OR operators are used to filter records based on more than one condition:

- The AND operator displays a record if all the conditions separated by AND are TRUE.
- The OR operator displays a record if any of the conditions separated by OR is TRUE.

The **NOT** operator displays a record if the condition(s) is **NOT** TRUE.

Example:

- Given:Create a Table Student
- StudentID, StudentName, Course, Program, Credits
- Add 10 record in Student table
- Display Student data whose credits lies in range of 8-9
- Display student Data whose Program in B.Tech
- Display Student Names starts from Letter:"A and S'
- Alter table and add column as 'Dept'
- Display Altered table
- Drop Table

Implementation:

-Table creation

```
CREATE TABLE Student (
    StudentID INT PRIMARY KEY,
    StudentName VARCHAR(255),
    Course VARCHAR(255),
    Program VARCHAR(255),
    Credits DECIMAL(5, 2)
);
```

-Value insertion

> Input

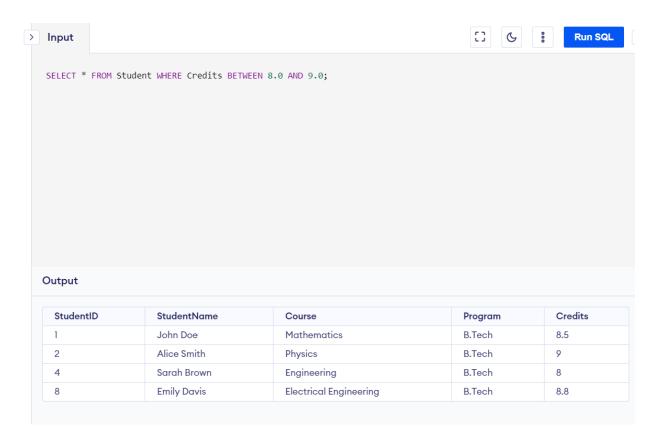
```
INSERT INTO Student (StudentID, StudentName, Course, Program, Credits)
VALUES

(1, 'John Doe', 'Mathematics', 'B.Tech', 8.5),
 (2, 'Alice Smith', 'Physics', 'B.Tech', 9.0),
 (3, 'Bob Johnson', 'Computer Science', 'M.Sc', 7.5),
 (4, 'Sarah Brown', 'Engineering', 'B.Tech', 8.0),
 (5, 'Michael Clark', 'Biology', 'B.Sc', 6.5),
 (6, 'Samantha White', 'Chemistry', 'B.Tech', 9.5),
 (7, 'Alex Turner', 'History', 'B.A', 7.0),
 (8, 'Emily Davis', 'Electrical Engineering', 'B.Tech', 8.8),
 (9, 'Steven Wilson', 'Mechanical Engineering', 'B.Tech', 7.2),
 (10, 'Linda Harris', 'Psychology', 'B.A', 9.3);
```

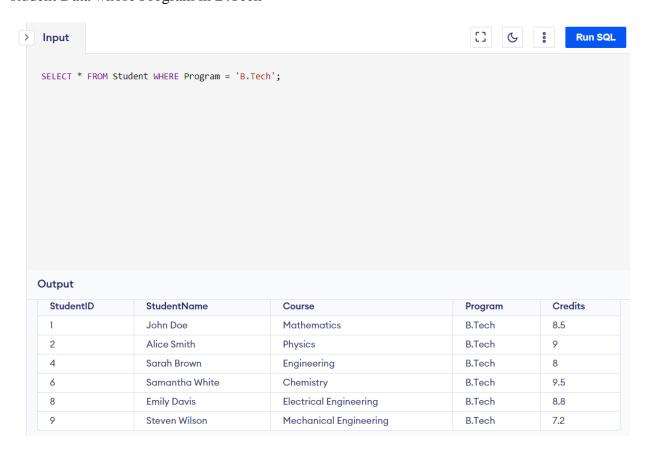
Student

StudentID	StudentName	Course	Program	Credits
1	John Doe	Mathematics	B.Tech	8.5
2	Alice Smith	Physics	B.Tech	9
3	Bob Johnson	Computer Science	M.Sc	7.5
4	Sarah Brown	Engineering	B.Tech	8
5	Michael Clark	Biology	B.Sc	6.5
6	Samantha White	Chemistry	B.Tech	9.5
7	Alex Turner	History	B.A	7
8	Emily Davis	Electrical Engineering	B.Tech	8.8
9	Steven Wilson	Mechanical Engineering	B.Tech	7.2
10	Linda Harris	Psychology	B.A	9.3

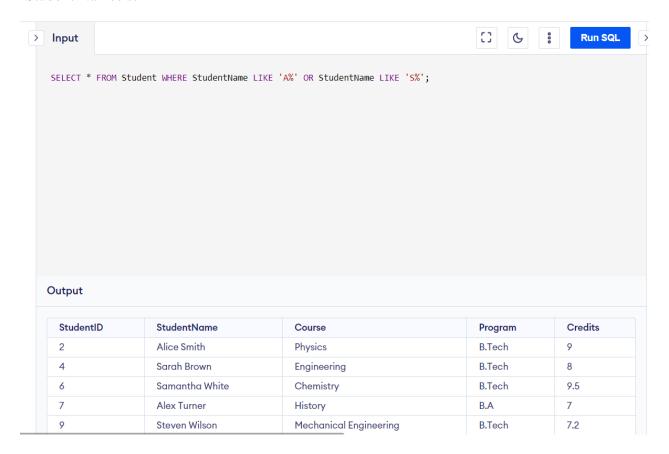
-Student data whose credits lies in range of 8-9



-student Data whose Program in B.Tech



-Student Names starts from Letter :"A and S'



-Alter table and column as 'Dept' added



Student

StudentName	Course	Program	Credits	Dept
John Doe	Mathematics	B.Tech	8.5	
Alice Smith	Physics	B.Tech	9	
Bob Johnson	Computer Science	M.Sc	7.5	
Sarah Brown	Engineering	B.Tech	8	
Michael Clark	Biology	B.Sc	6.5	
Samantha White	Chemistry	B.Tech	9.5	
Alex Turner	History	B.A	7	

-Table drop

