

EXPERIMENT 21

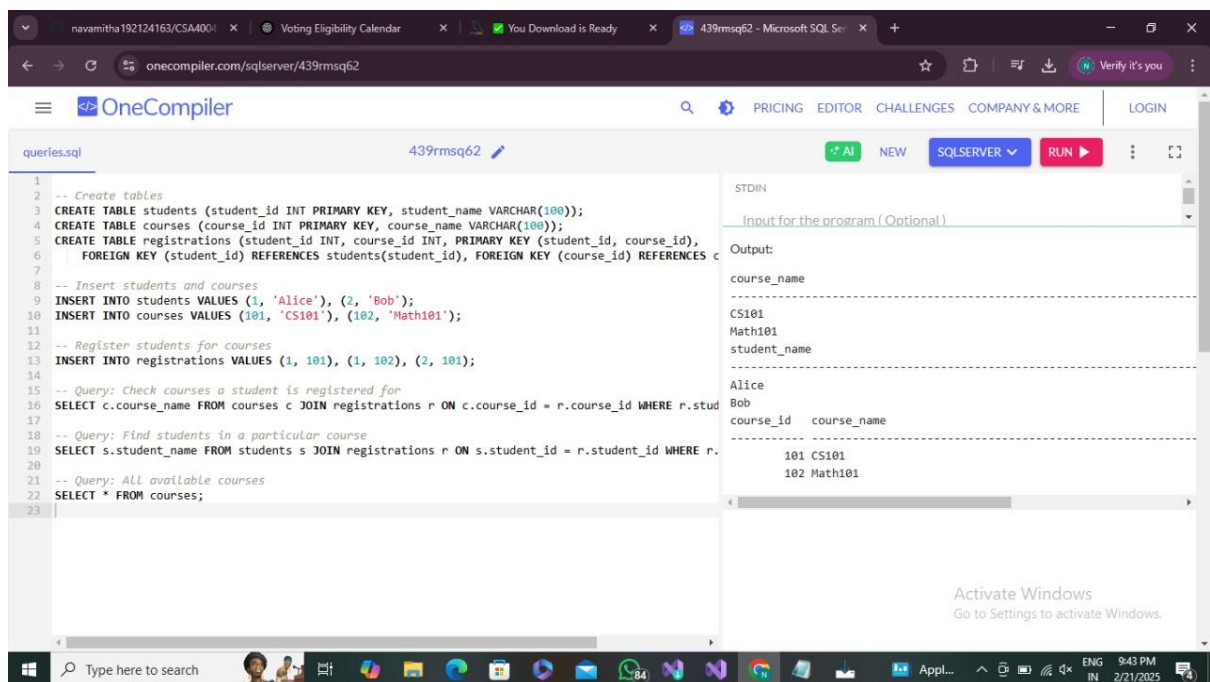
Aim:

To develop a **student course registration system** using **Data Manipulation Language (DML)** and **Data Query Language (DQL)** in SQL.

Procedure:

1. Create a **SQL database** with a **Courses** table (CourseID, CourseName, Credits, etc.) and a **Students** table (StudentID, Name, CourseID, etc.).
2. Use **DML commands** (INSERT, UPDATE, DELETE) to allow students to register for courses.
3. Use **DQL commands** (SELECT) to display registered courses.
4. Connect the **front end (WebForm1.aspx)** with the database using **ADO.NET**.
5. Test course registration and retrieval functionalities.

Output:



```
1 -- Create tables
2 CREATE TABLE students (student_id INT PRIMARY KEY, student_name VARCHAR(100));
3 CREATE TABLE courses (course_id INT PRIMARY KEY, course_name VARCHAR(100));
4 CREATE TABLE registrations (student_id INT, course_id INT, PRIMARY KEY (student_id, course_id),
5 FOREIGN KEY (student_id) REFERENCES students(student_id), FOREIGN KEY (course_id) REFERENCES c
6
7 -- Insert students and courses
8 INSERT INTO students VALUES (1, 'Alice'), (2, 'Bob');
9 INSERT INTO courses VALUES (101, 'CS101'), (102, 'Math101');
10
11 -- Register students for courses
12 INSERT INTO registrations VALUES (1, 101), (1, 102), (2, 101);
13
14 -- Query: Check courses a student is registered for
15 SELECT c.course_name FROM courses c JOIN registrations r ON c.course_id = r.course_id WHERE r.stud
16
17 -- Query: Find students in a particular course
18 SELECT s.student_name FROM students s JOIN registrations r ON s.student_id = r.student_id WHERE r.
19
20 -- Query: ALL available courses
21 SELECT * FROM courses;
```

Output:

course_name
CS101
Math101

student_name
Alice
Bob

course_id	course_name
101	CS101
102	Math101

Result:

A **course registration system** was successfully developed using **DML** and **DQL**.