Patrick Murray

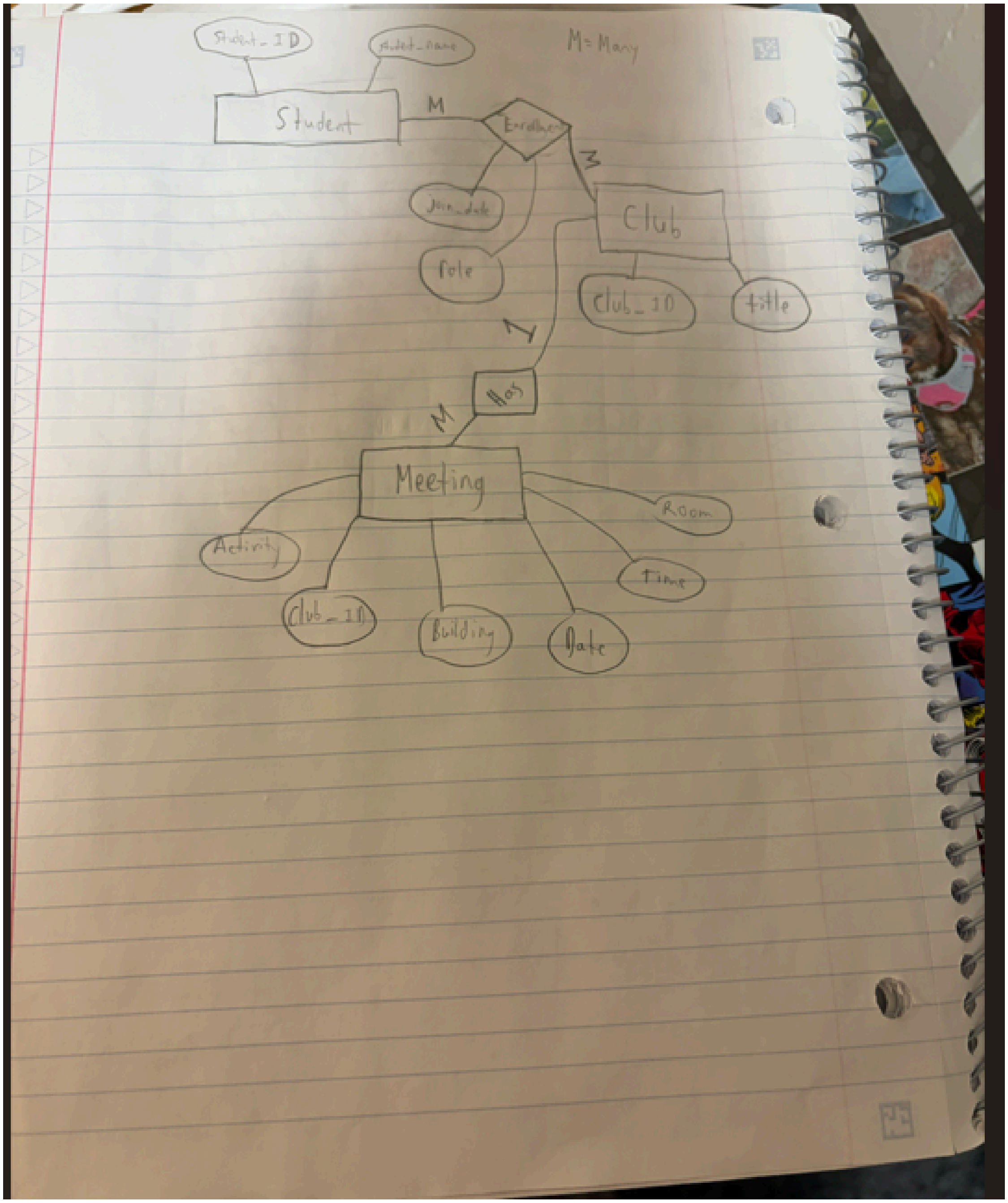
Professor Rivas

Database Management

19 February 2026

Github link: Not-Patrick1/DatabaseLabs: First lab for DB management.

Part A:


Student_ID
Student_name
M= Many
Student
M
Enrollment
M
join_date
role
Club
club_ID
title
1
Has
M
Meeting
Activity
Club_ID
Building
Date
Time
Room

Part B:

Table 1: Student

- Primary Key: student_ID (integer)
- Key: student_Name (text)

Table 2: Club

- Primary Key: club_ID (integer)
- Key: club_Name (text)

Table 3: Enrollment (Join table between Student and Club)

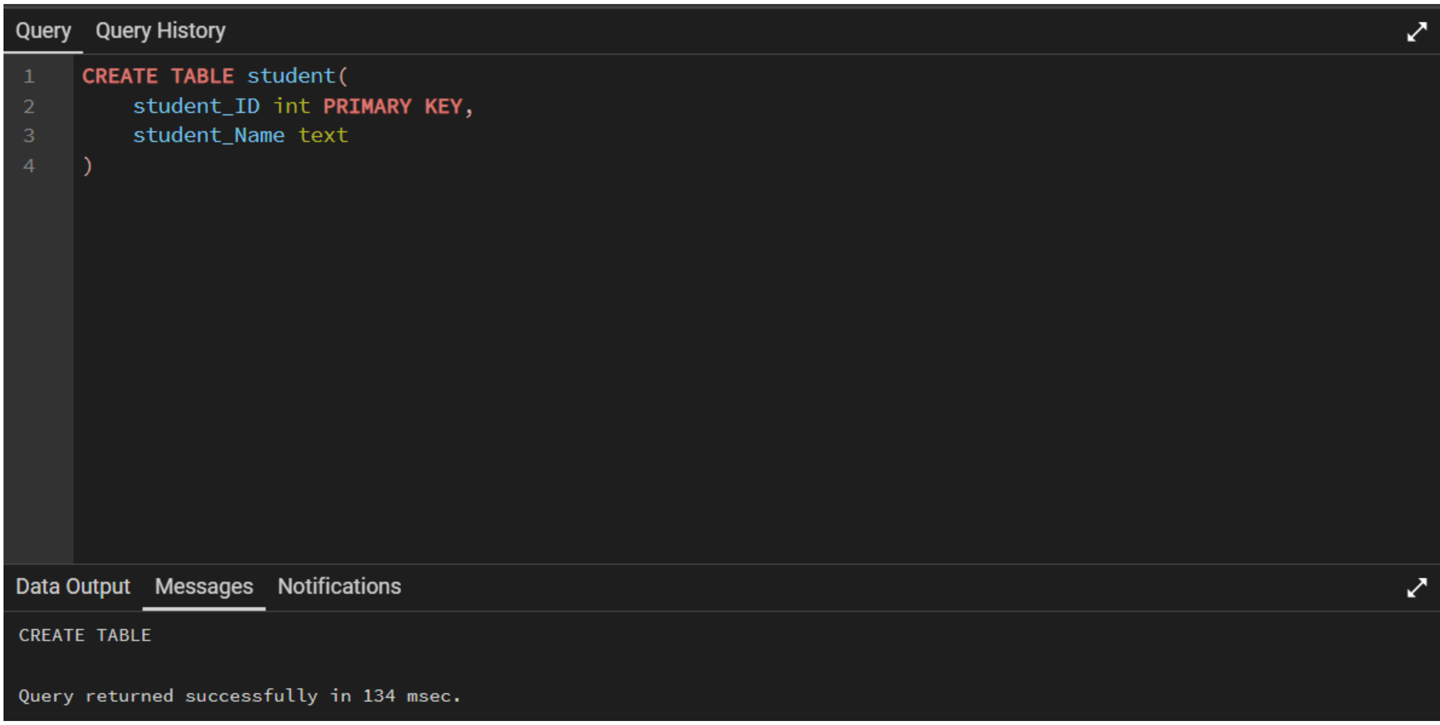
- Primary Key, Foreign Key: student_ID (integer). References the student ID from the Student table.
- Primary Key, Foreign Key: club_ID (integer). References the club ID from the Club table.
- Primary Key: join_date (DATE). Stored at the join table to record when the student joined along with their information and the club they joined.
- Key: club_Role (text). Stored at the join table to record more information about the student when they join.

Table 4: Meeting

- Primary Key, Foreign Key: club_ID (integer). References club_ID from the club table to show what club the meeting is for.
- Primary Key: building (text)
- Primary Key: room (integer)

- Primary Key: date (DATE)
- Primary Key: time (TIME)
- Key: activity (text)

Screenshots:

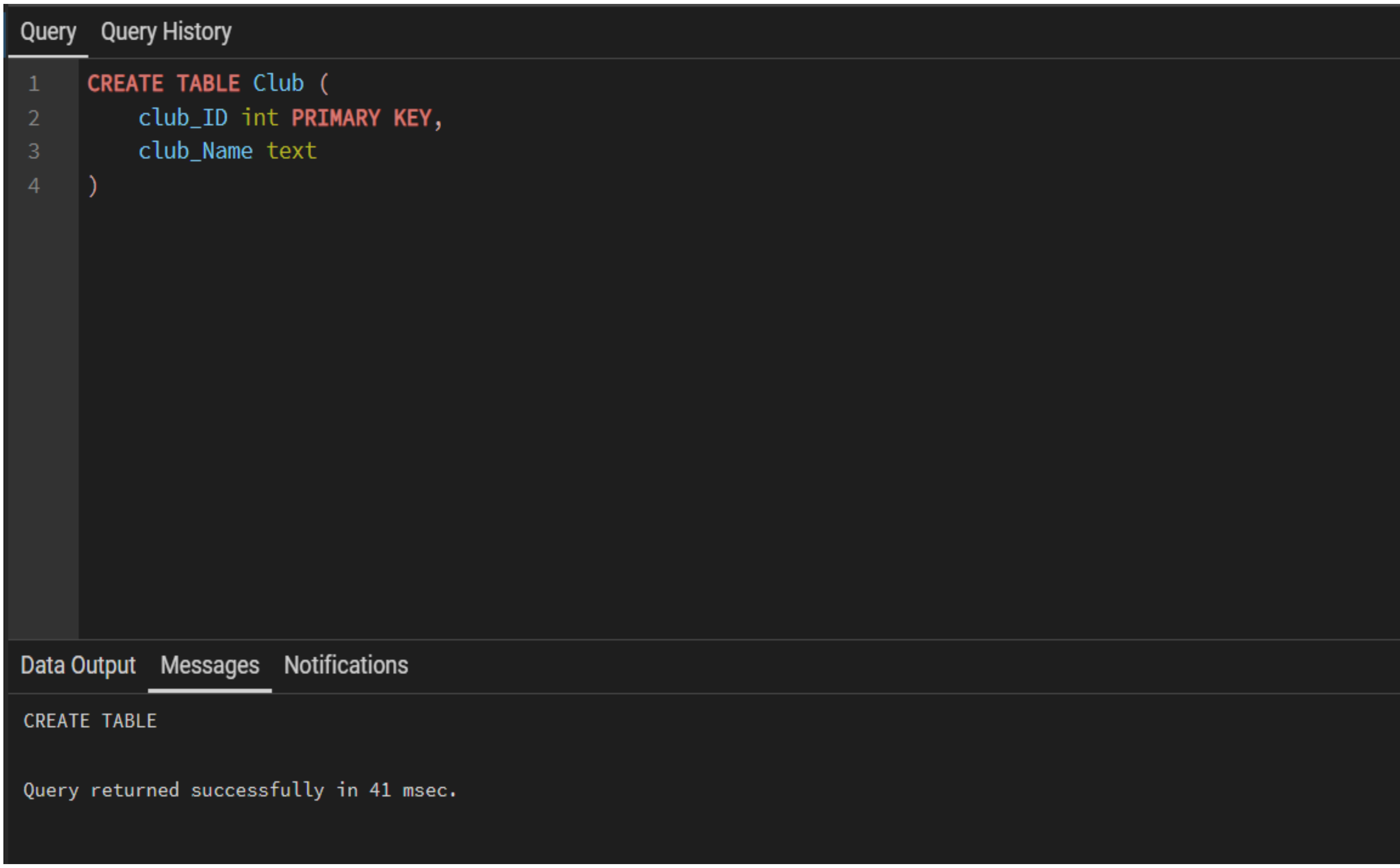


```
CREATE TABLE student(
    student_ID int PRIMARY KEY,
    student_Name text
)
```

```
CREATE TABLE

Query returned successfully in 134 msec.
```

Create table student

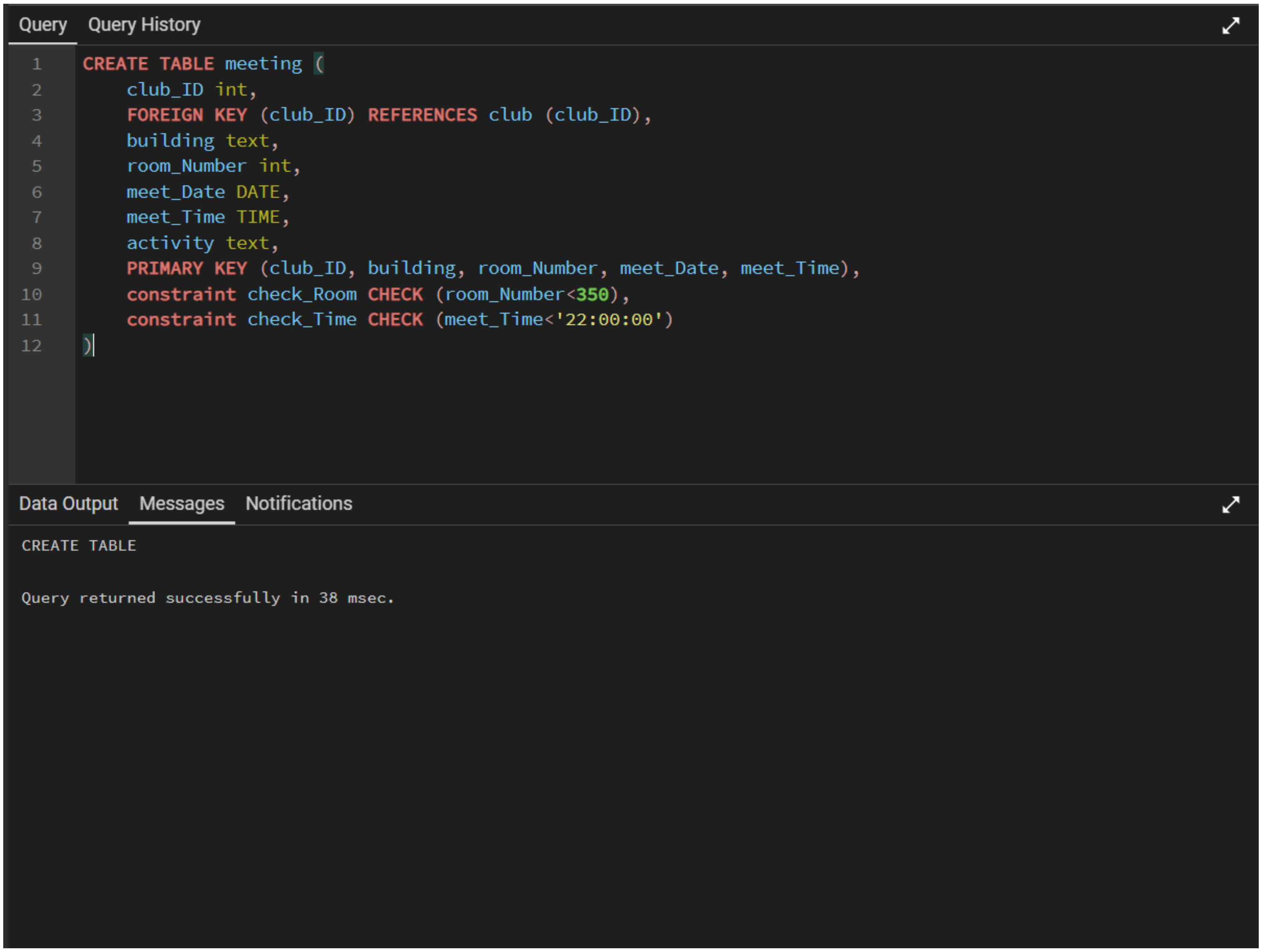


```sql
CREATE TABLE Club (
    club_ID int PRIMARY KEY,
    club_Name text
)
```

```
CREATE TABLE

Query returned successfully in 41 msec.
```

Create table club

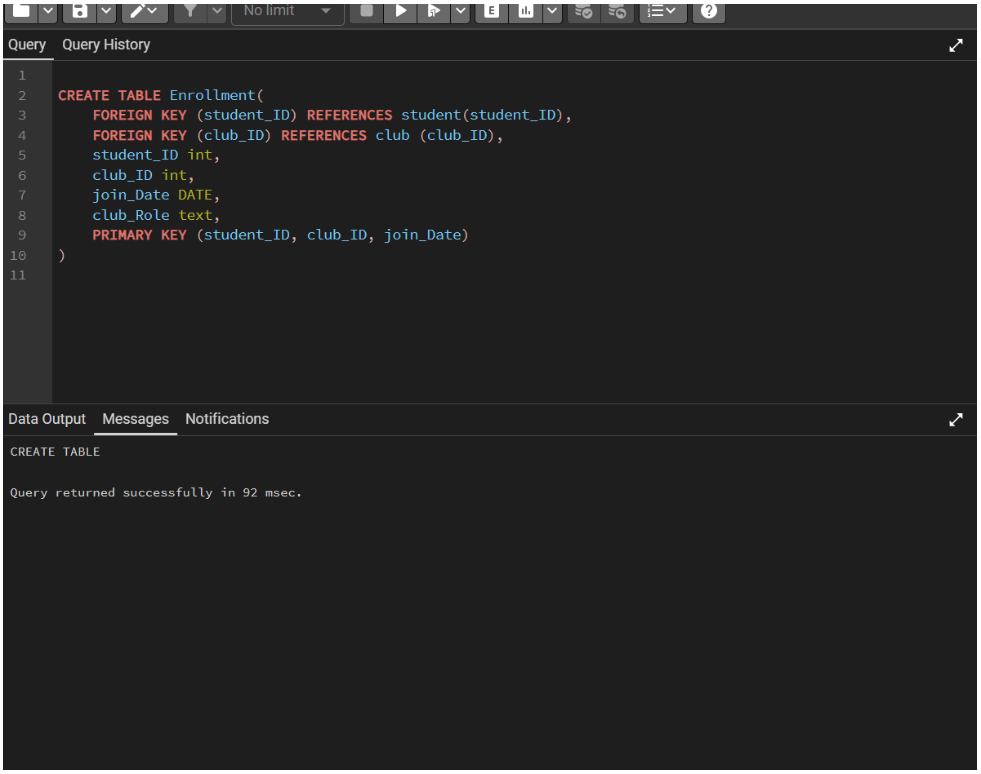


```sql
CREATE TABLE meeting (
    club_ID int,
    FOREIGN KEY (club_ID) REFERENCES club (club_ID),
    building text,
    room_Number int,
    meet_Date DATE,
    meet_Time TIME,
    activity text,
    PRIMARY KEY (club_ID, building, room_Number, meet_Date, meet_Time),
    constraint check_Room CHECK (room_Number<350),
    constraint check_Time CHECK (meet_Time<'22:00:00')
)
```

```
CREATE TABLE

Query returned successfully in 38 msec.
```

Create table meeting



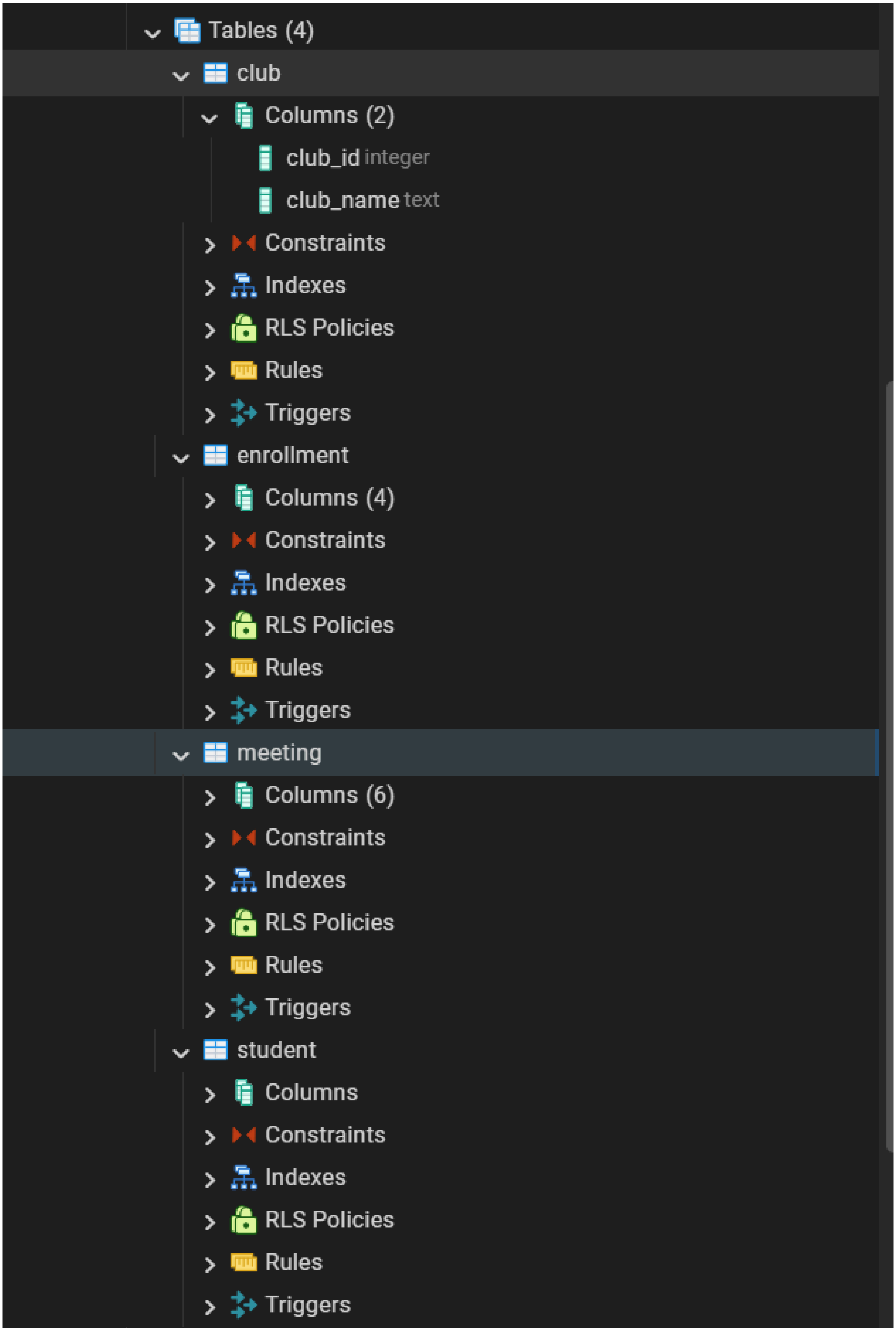
```
CREATE TABLE Enrollment(
    FOREIGN KEY (student_ID) REFERENCES student(student_ID),
    FOREIGN KEY (club_ID) REFERENCES club (club_ID),
    student_ID int,
    club_ID int,
    join_Date DATE,
    club_Role text,
    PRIMARY KEY (student_ID, club_ID, join_Date)
)
```

```
CREATE TABLE

Query returned successfully in 92 msec.
```

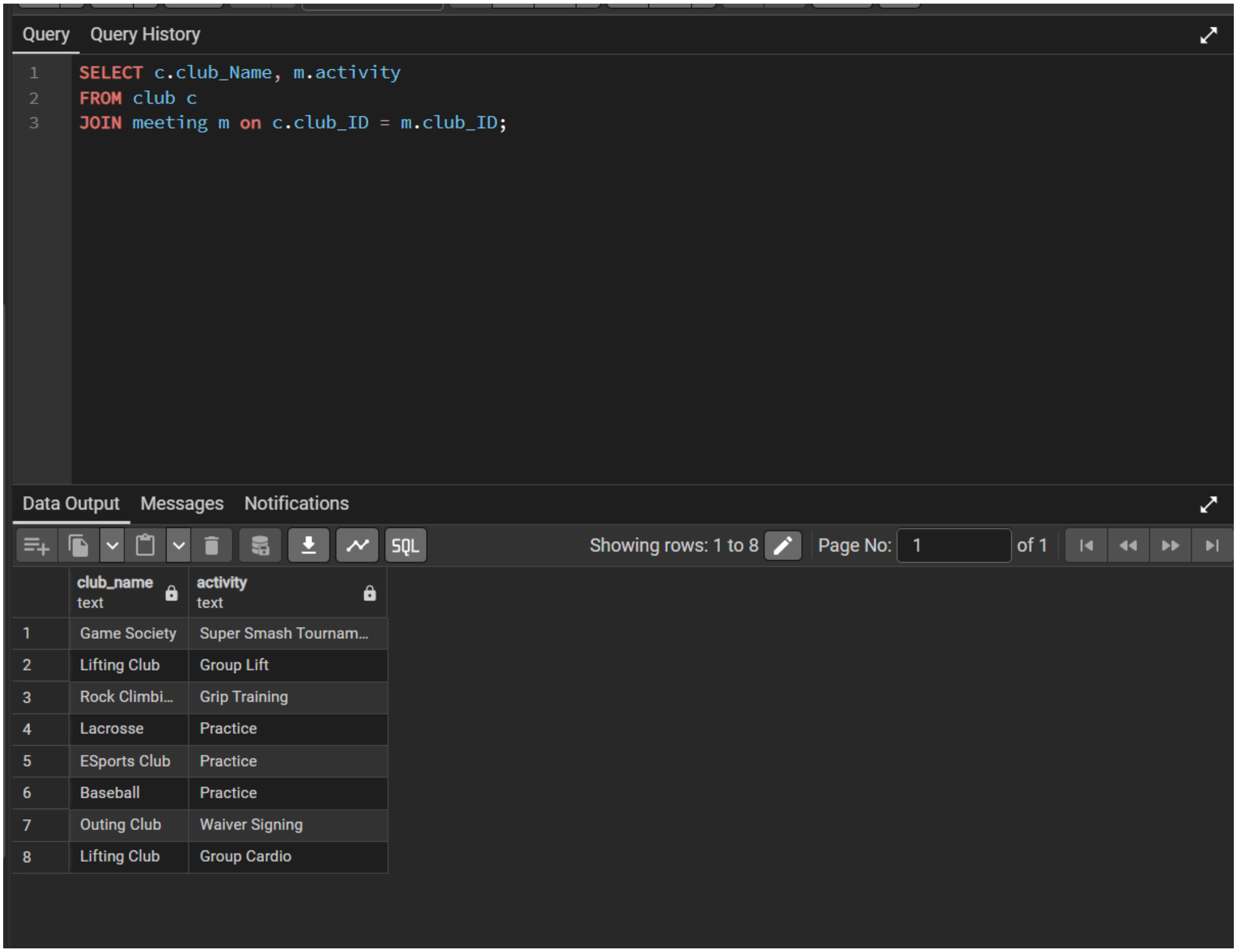
Create table enrollment

Next page is Database



```
Tables (4)
  club
    Columns (2)
      club_id integer
      club_name text
    Constraints
    Indexes
    RLS Policies
    Rules
    Triggers
  enrollment
    Columns (4)
    Constraints
    Indexes
    RLS Policies
    Rules
    Triggers
  meeting
    Columns (6)
    Constraints
    Indexes
    RLS Policies
    Rules
    Triggers
  student
    Columns
    Constraints
    Indexes
    RLS Policies
    Rules
    Triggers
```

Two table join

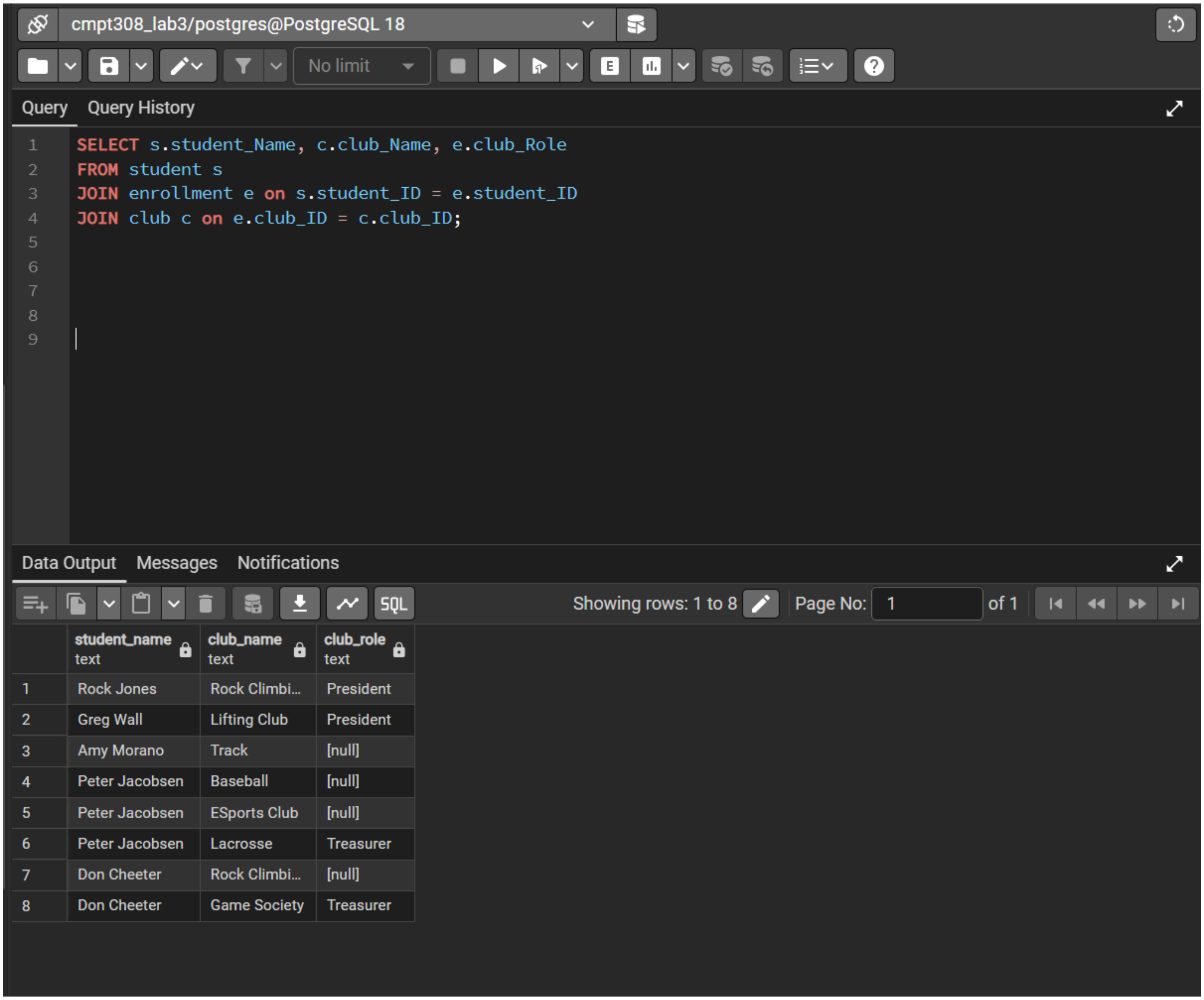


```
SELECT c.club_Name, m.activity
FROM club c
JOIN meeting m on c.club_ID = m.club_ID;
```

Showing rows: 1 to 8 Page No: 1 of 1

	club_name text	activity text
1	Game Society	Super Smash Tournam...
2	Lifting Club	Group Lift
3	Rock Climbi...	Grip Training
4	Lacrosse	Practice
5	ESports Club	Practice
6	Baseball	Practice
7	Outing Club	Waiver Signing
8	Lifting Club	Group Cardio

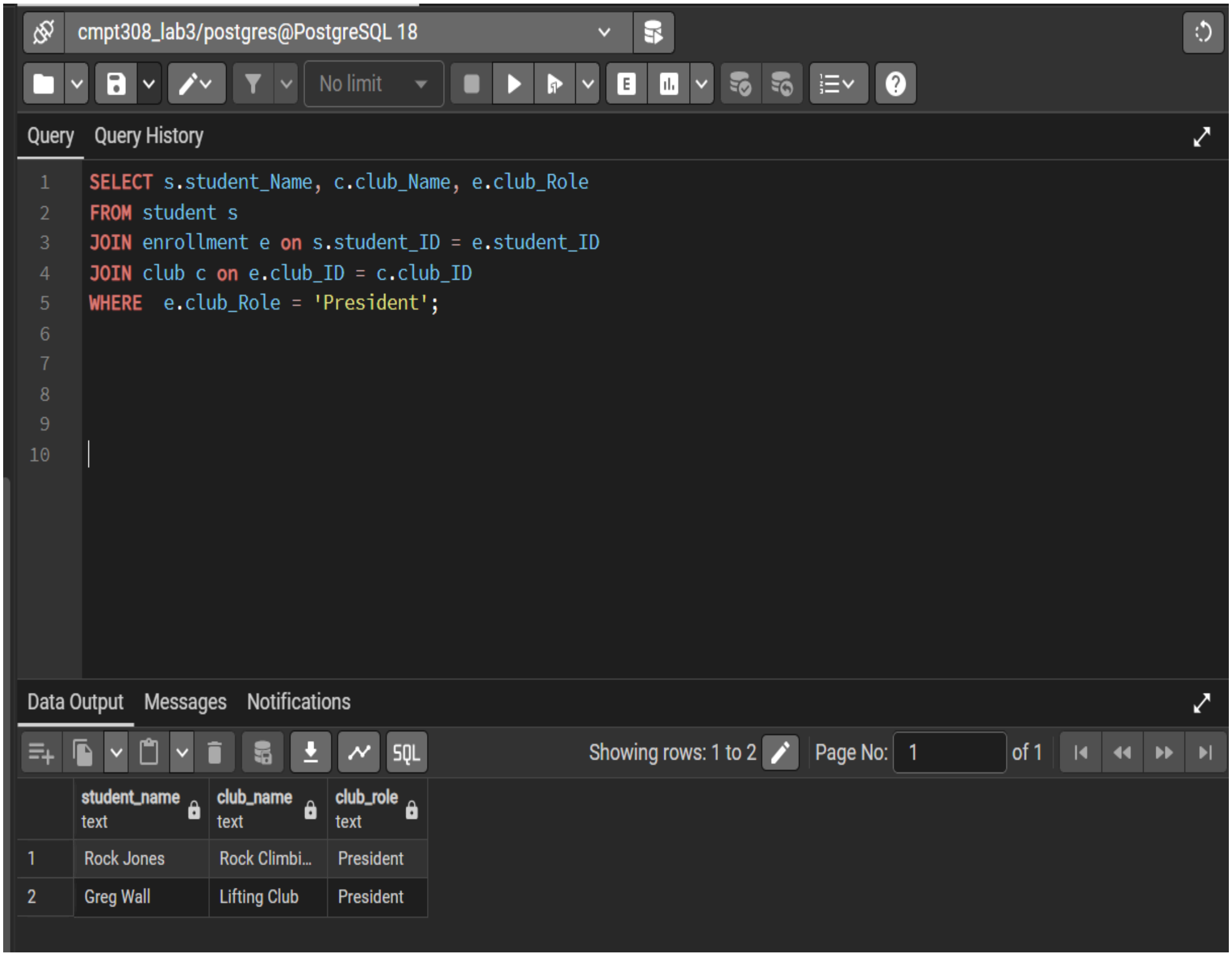
Three table join



```sql
SELECT s.student_Name, c.club_Name, e.club_Role
FROM student s
JOIN enrollment e on s.student_ID = e.student_ID
JOIN club c on e.club_ID = c.club_ID;
```

	student_name text	club_name text	club_role text
1	Rock Jones	Rock Climbi...	President
2	Greg Wall	Lifting Club	President
3	Amy Morano	Track	[null]
4	Peter Jacobsen	Baseball	[null]
5	Peter Jacobsen	ESports Club	[null]
6	Peter Jacobsen	Lacrosse	Treasurer
7	Don Cheeter	Rock Climbi...	[null]
8	Don Cheeter	Game Society	Treasurer

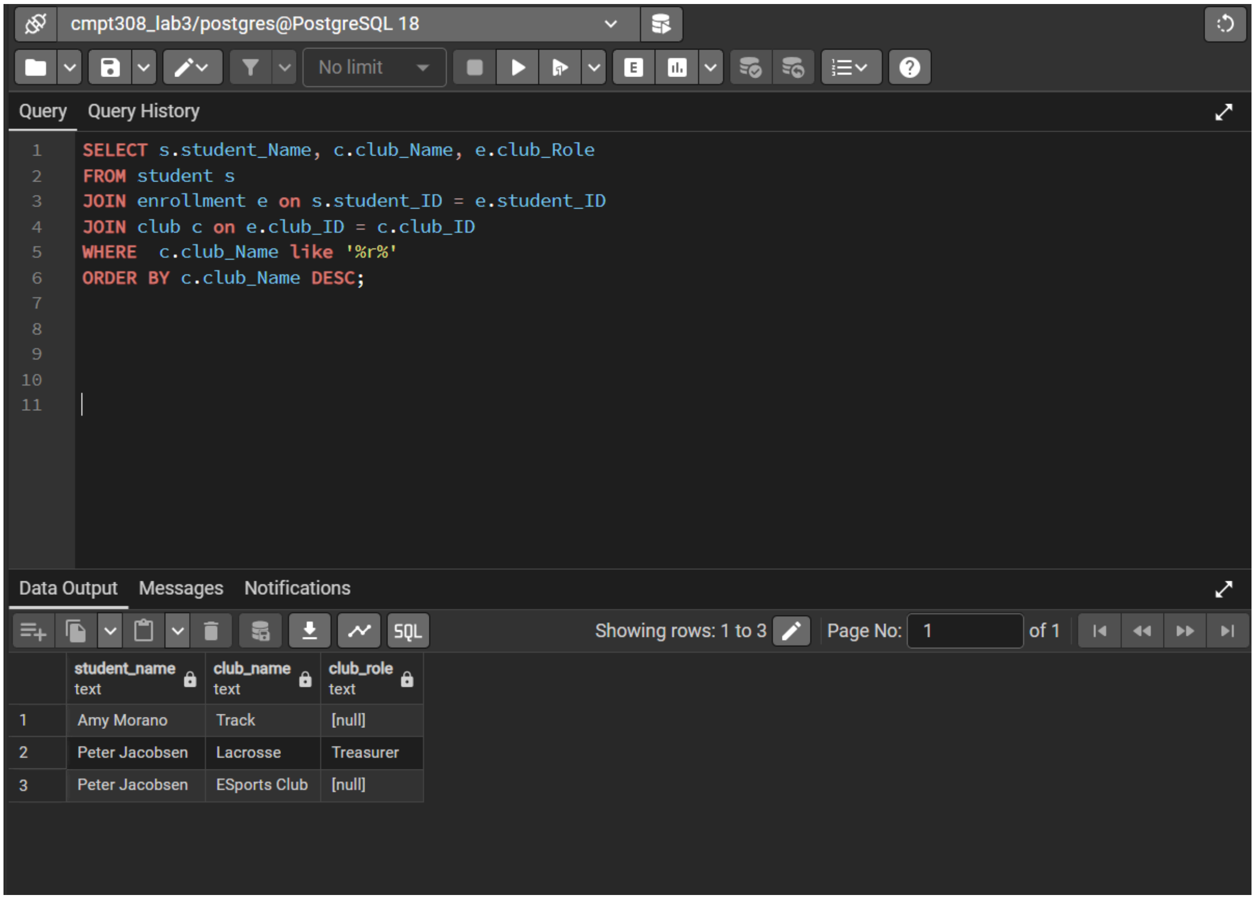
JOIN + filter



```
SELECT s.student_Name, c.club_Name, e.club_Role
FROM student s
JOIN enrollment e on s.student_ID = e.student_ID
JOIN club c on e.club_ID = c.club_ID
WHERE  e.club_Role = 'President';
```

	student_name text	club_name text	club_role text
1	Rock Jones	Rock Climbi...	President
2	Greg Wall	Lifting Club	President

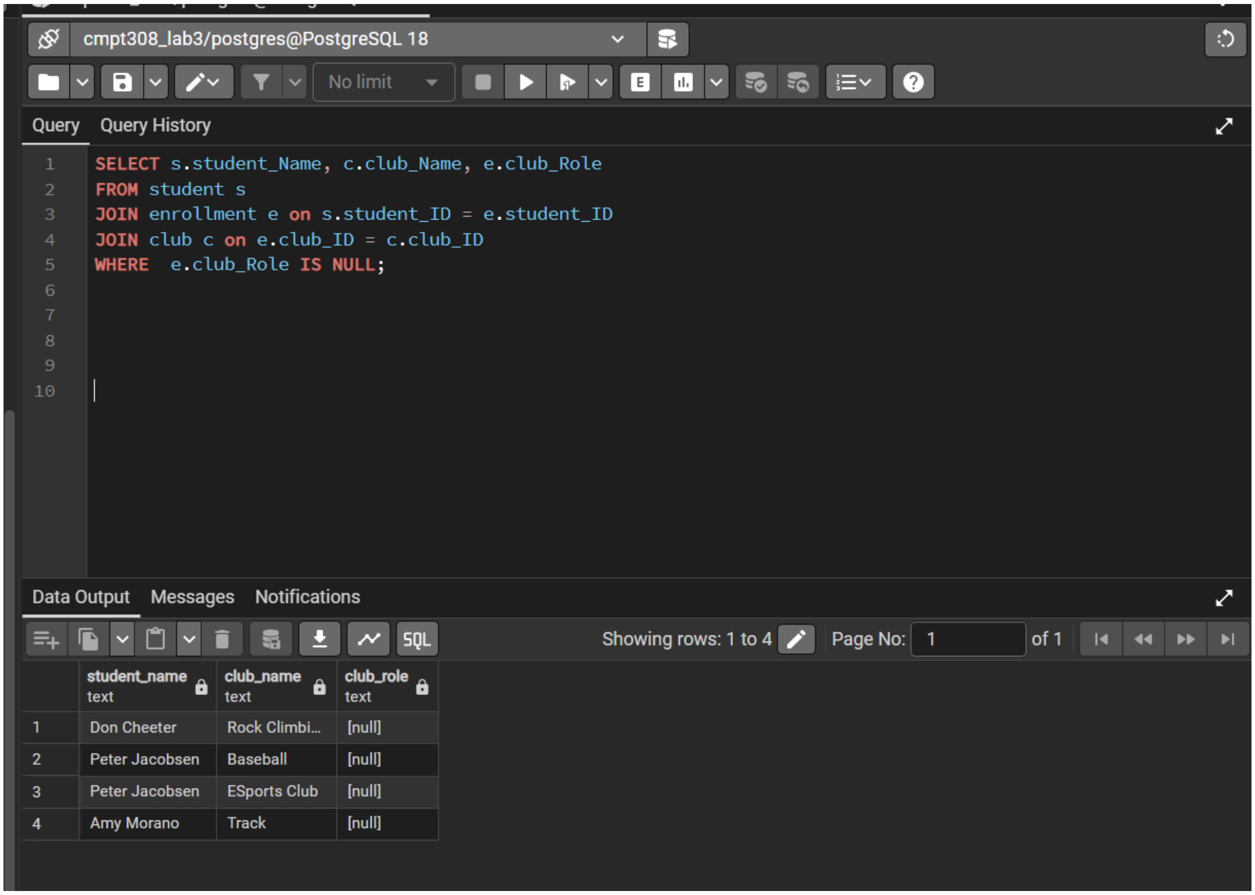
JOIN + projection + SORT



```
SELECT s.student_Name, c.club_Name, e.club_Role
FROM student s
JOIN enrollment e on s.student_ID = e.student_ID
JOIN club c on e.club_ID = c.club_ID
WHERE  c.club_Name like '%r%'
ORDER BY c.club_Name DESC;
```

	student_name text	club_name text	club_role text
1	Amy Morano	Track	[null]
2	Peter Jacobsen	Lacrosse	Treasurer
3	Peter Jacobsen	ESports Club	[null]

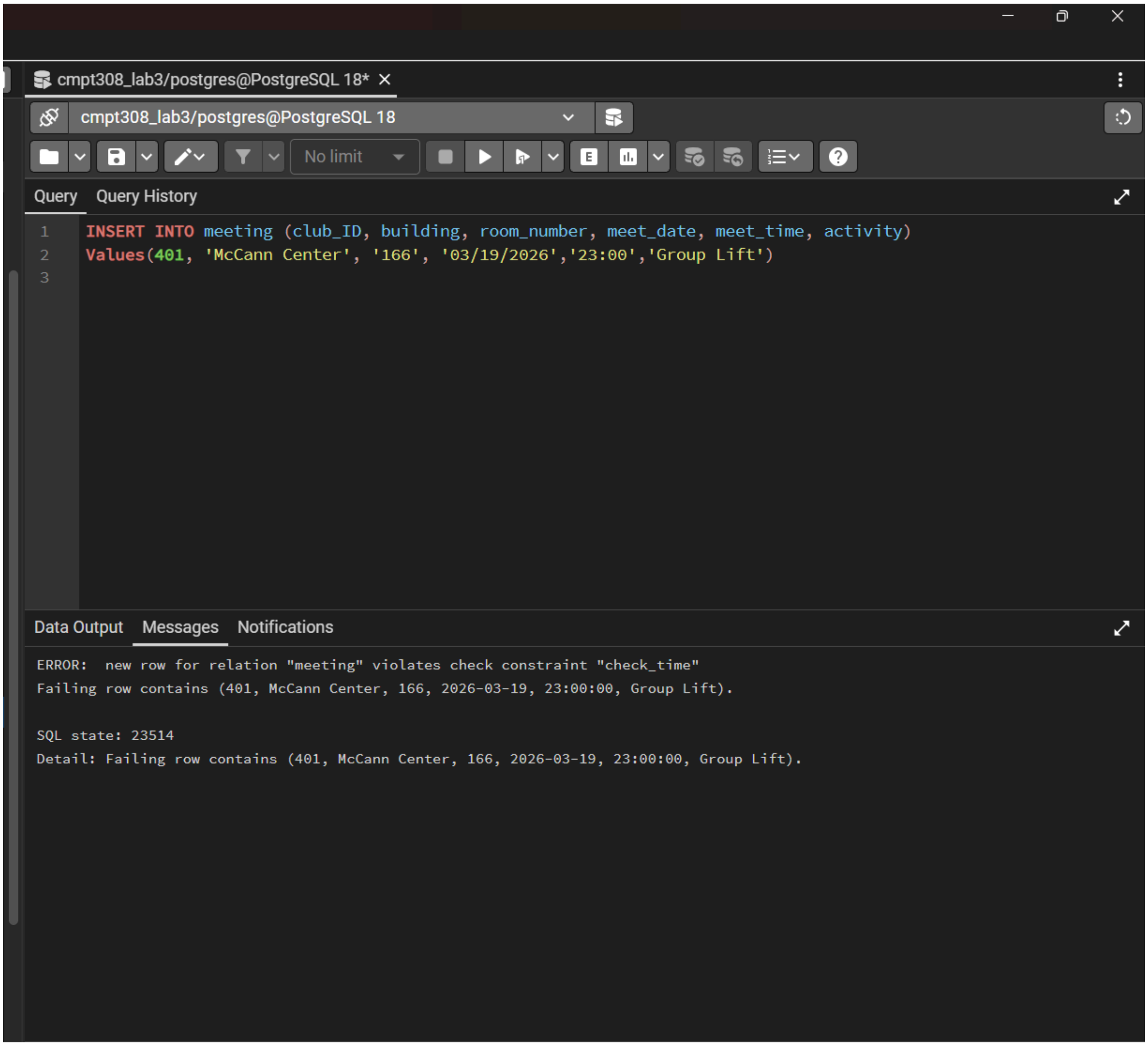
Null Query



```sql
SELECT s.student_Name, c.club_Name, e.club_Role
FROM student s
JOIN enrollment e on s.student_ID = e.student_ID
JOIN club c on e.club_ID = c.club_ID
WHERE  e.club_Role IS NULL;
```

	student_name text	club_name text	club_role text
1	Don Cheeter	Rock Climbi...	[null]
2	Peter Jacobsen	Baseball	[null]
3	Peter Jacobsen	ESports Club	[null]
4	Amy Morano	Track	[null]

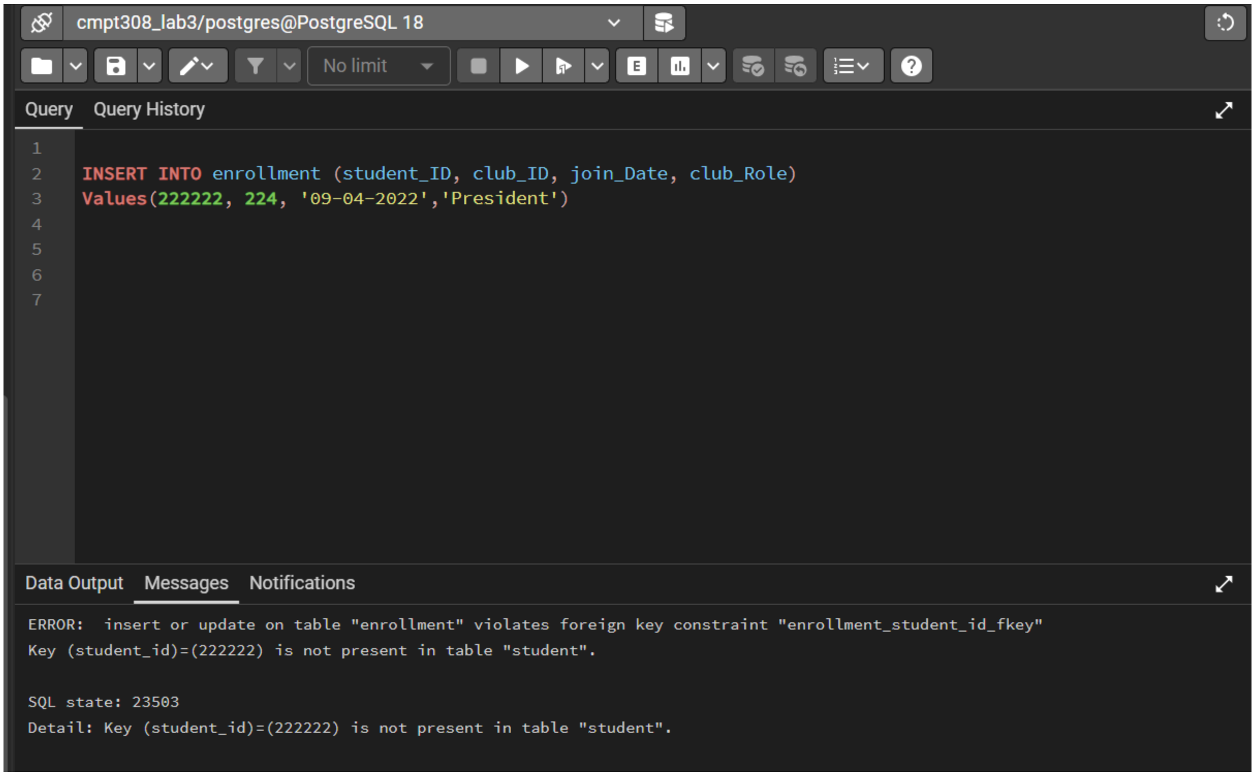
Check Violation


cmpt308_lab3/postgres@PostgreSQL 18*
cmpt308_lab3/postgres@PostgreSQL 18
No limit
Query
Query History
Data Output
Messages
Notifications

```
INSERT INTO meeting (club_ID, building, room_number, meet_date, meet_time, activity)
Values(401, 'McCann Center', '166', '03/19/2026','23:00','Group Lift')
```

```
ERROR:  new row for relation "meeting" violates check constraint "check_time"
Failing row contains (401, McCann Center, 166, 2026-03-19, 23:00:00, Group Lift).

SQL state: 23514
Detail: Failing row contains (401, McCann Center, 166, 2026-03-19, 23:00:00, Group Lift).
```



```

INSERT INTO enrollment (student_ID, club_ID, join_Date, club_Role)
Values(222222, 224, '09-04-2022','President')
```

```
ERROR:  insert or update on table "enrollment" violates foreign key constraint "enrollment_student_id_fkey"
Key (student_id)=(222222) is not present in table "student".

SQL state: 23503
Detail: Key (student_id)=(222222) is not present in table "student".
```