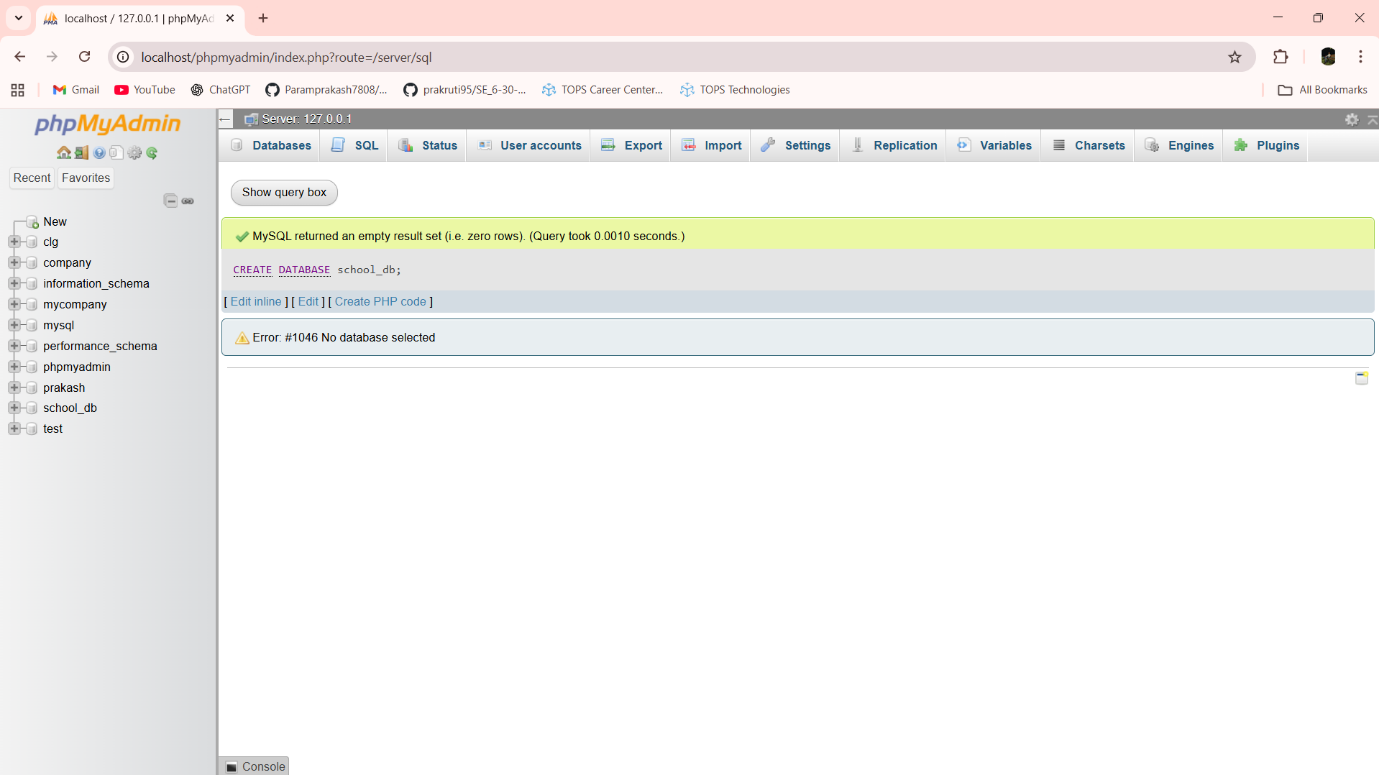
**Name**: Paramprakash Makwana

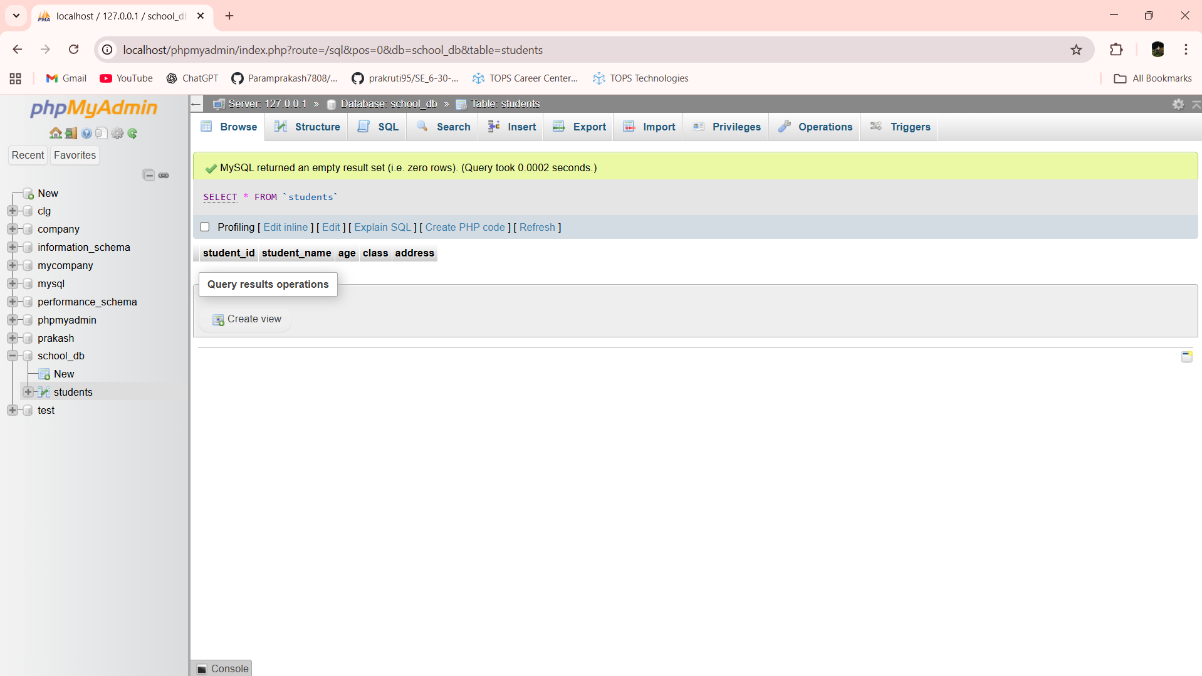
**Module 4 – Introduction to DBMS**

Lab 1.1: Create a new database named school\_db and a table called students with the following columns: student\_id, student\_name, age, class, and address.

Ans:- CREATE DATABASE school\_db



CREATE TABLE students (student\_id int PRIMARY KEY AUTO\_INCREMENT,student\_name varchar(30),age int,class varchar(30),address varchar(50))



Lab 1.2: Insert five records into the students table and retrieve all records using the SELECT statement.

Ans:- INSERT INTO students (student\_id,student\_name,age,class,address) VALUES (101,'Prakash',21,'8TD2','Morbi Road Bedi Village Rajkot')

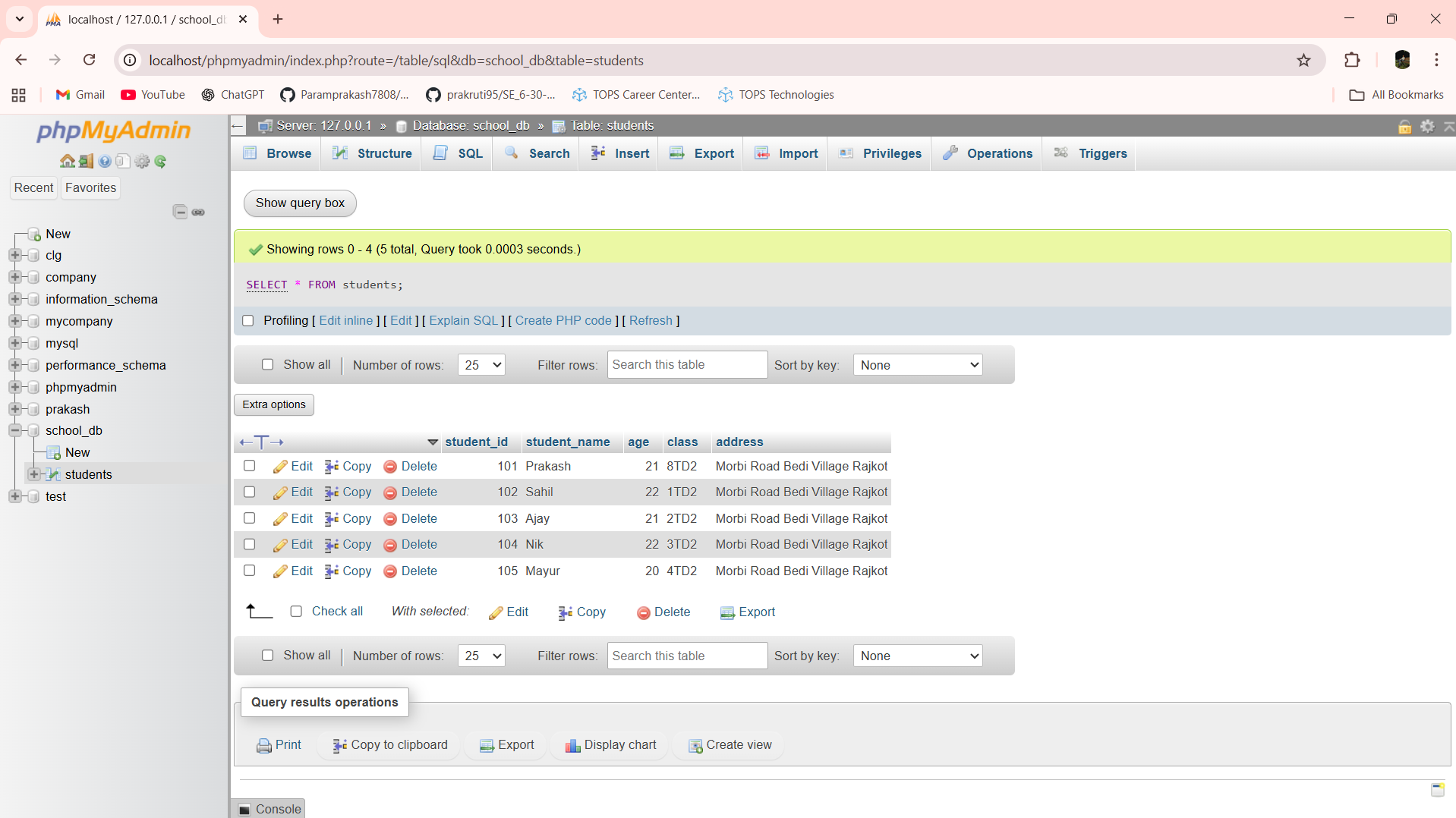
INSERT INTO students (student\_id,student\_name,age,class,address) VALUES (102,'Sahil',22,'1TD2','Morbi Road Bedi Village Rajkot')

INSERT INTO students (student\_id,student\_name,age,class,address) VALUES (103,'Ajay',21,'2TD2','Morbi Road Bedi Village Rajkot')

INSERT INTO students (student\_id,student\_name,age,class,address) VALUES (104,'Nik',22,'3TD2','Morbi Road Bedi Village Rajkot')

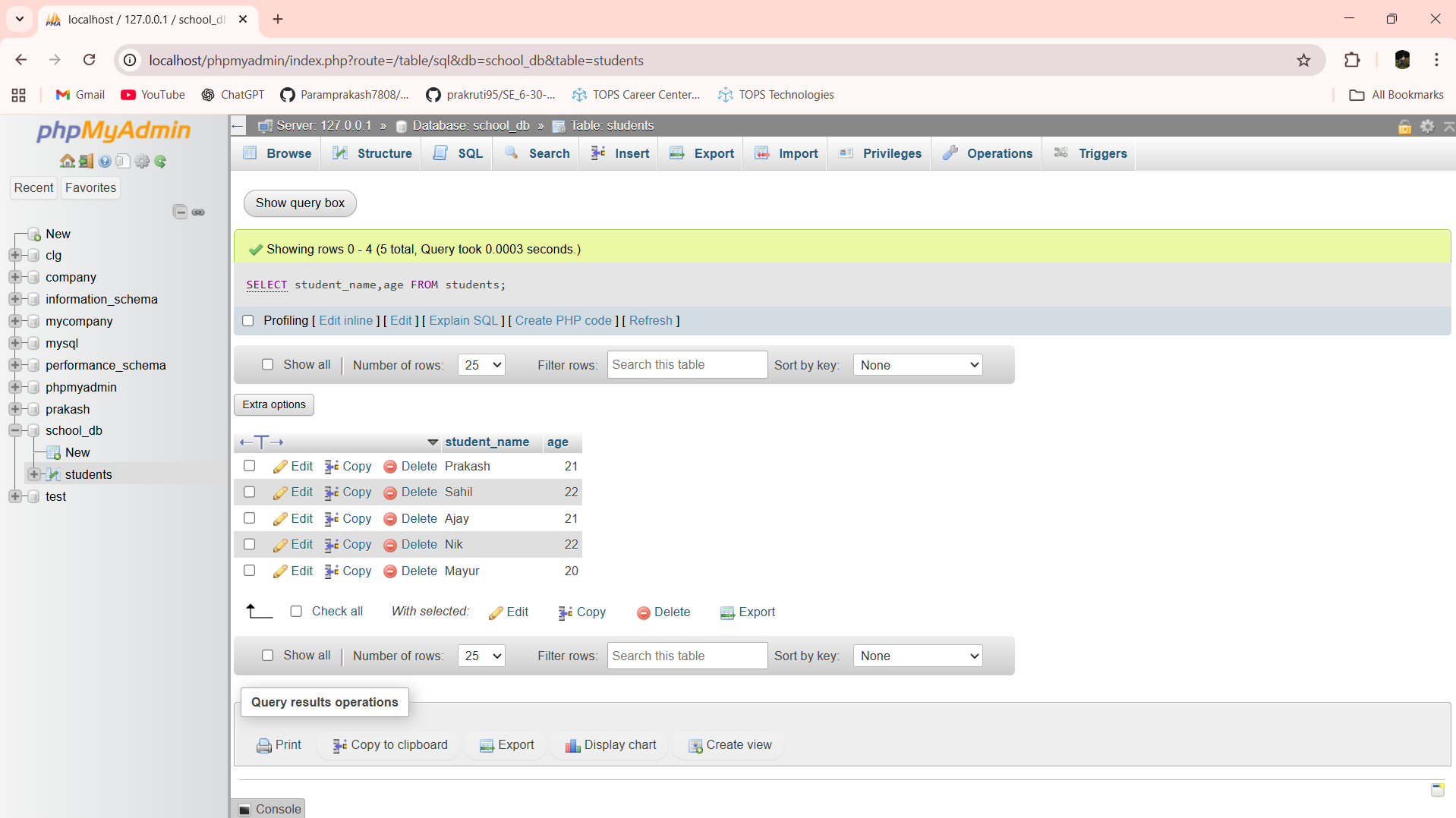
INSERT INTO students (student\_id,student\_name,age,class,address) VALUES (105,'Mayur',20,'4TD2','Morbi Road Bedi Village Rajkot')

SELECT \* FROM students



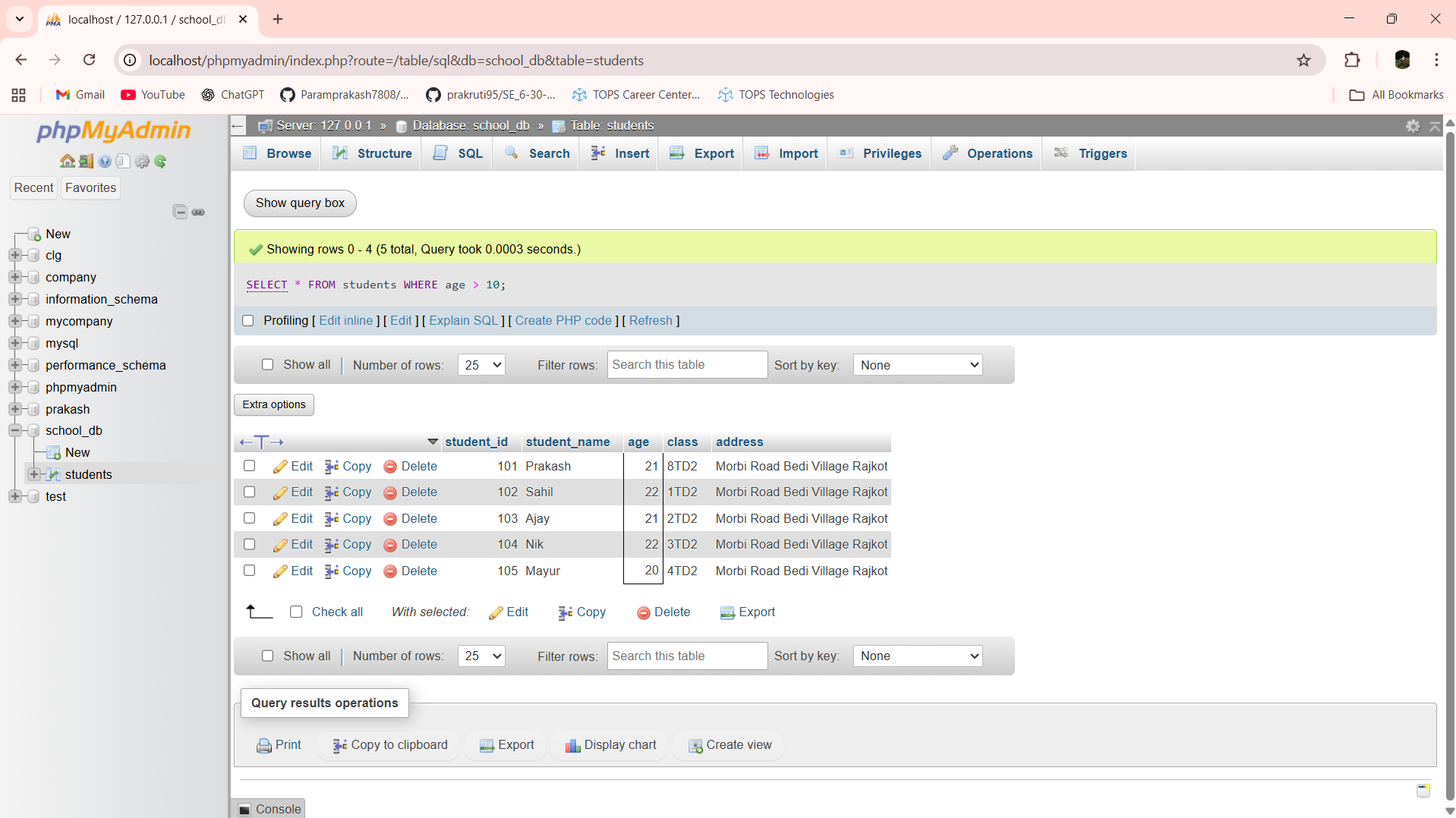
Lab 2.1: Write SQL queries to retrieve specific columns (student\_name and age) from the students table.

Ans:- SELECT student\_name,age FROM students



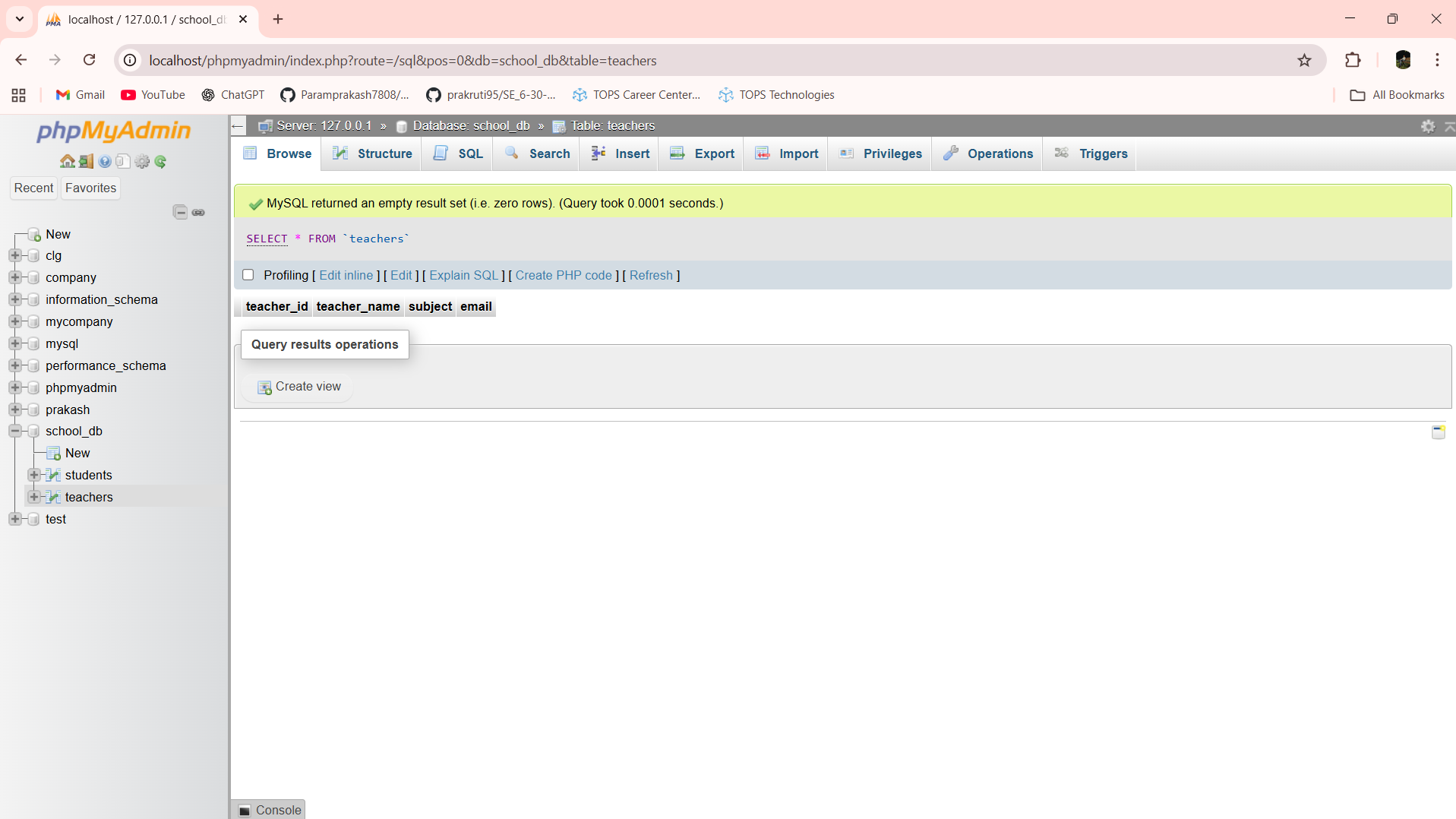
Lab 2.2: Write SQL queries to retrieve all students whose age is greater than 10.

Ans:- SELECT \* FROM students WHERE age > 10



Lab 3.1: Create a table teachers with the following columns: teacher\_id (Primary Key), teacher\_name (NOT NULL), subject (NOT NULL), and email (UNIQUE).

Ans:- CREATE TABLE teachers(teacher\_id int Primary Key AUTO\_INCREMENT,teacher\_name varchar(30), subject varchar(30),email varchar(30))



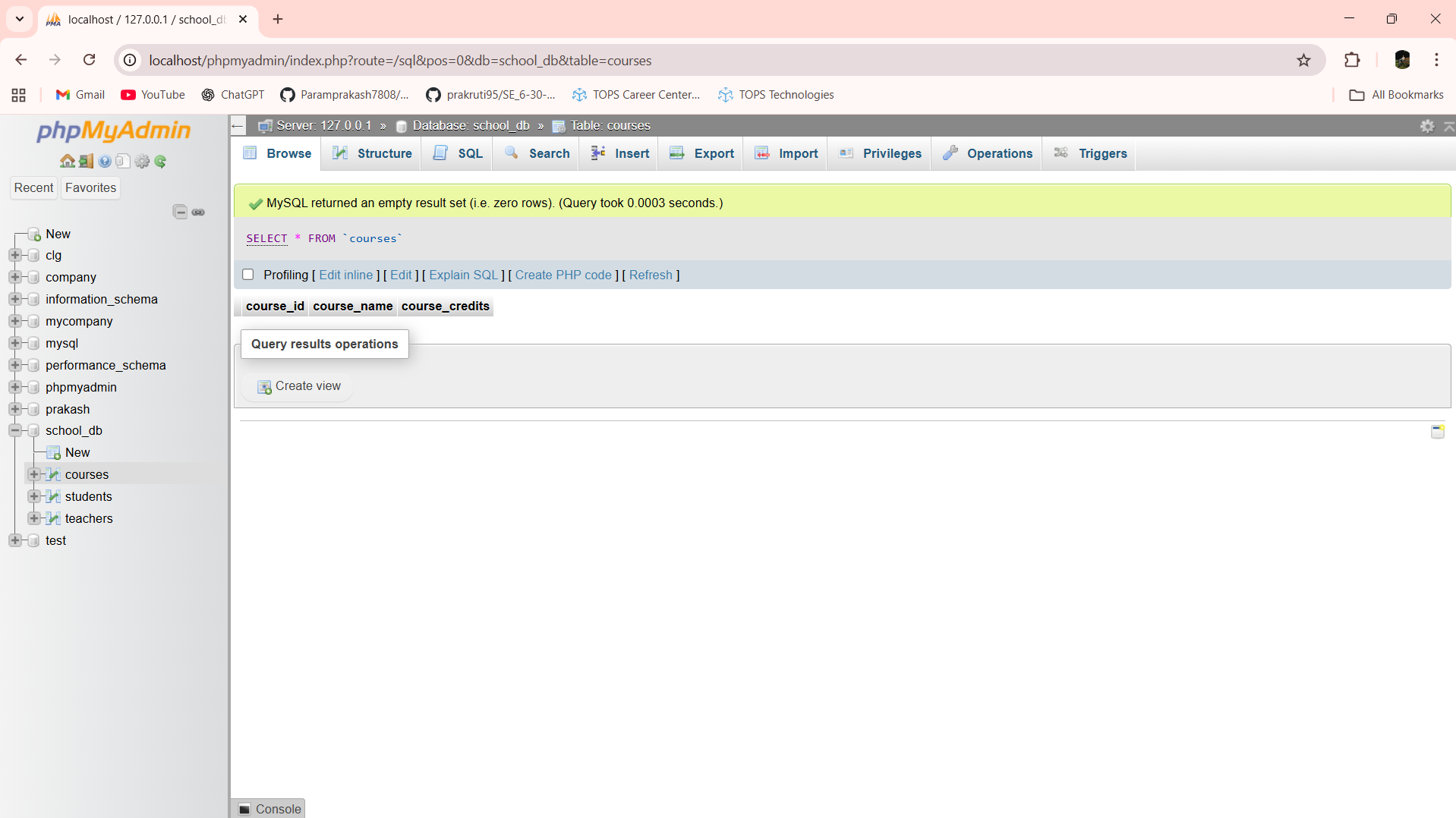
Lab 3.2: Implement a FOREIGN KEY constraint to relate the teacher\_id from the teachers table with the students table.

Ans:- ALTER TABLE students ADD CONSTRAINT fk\_teacher FOREIGN KEY (teacher\_id) REFERENCES teachers(teacher\_id)



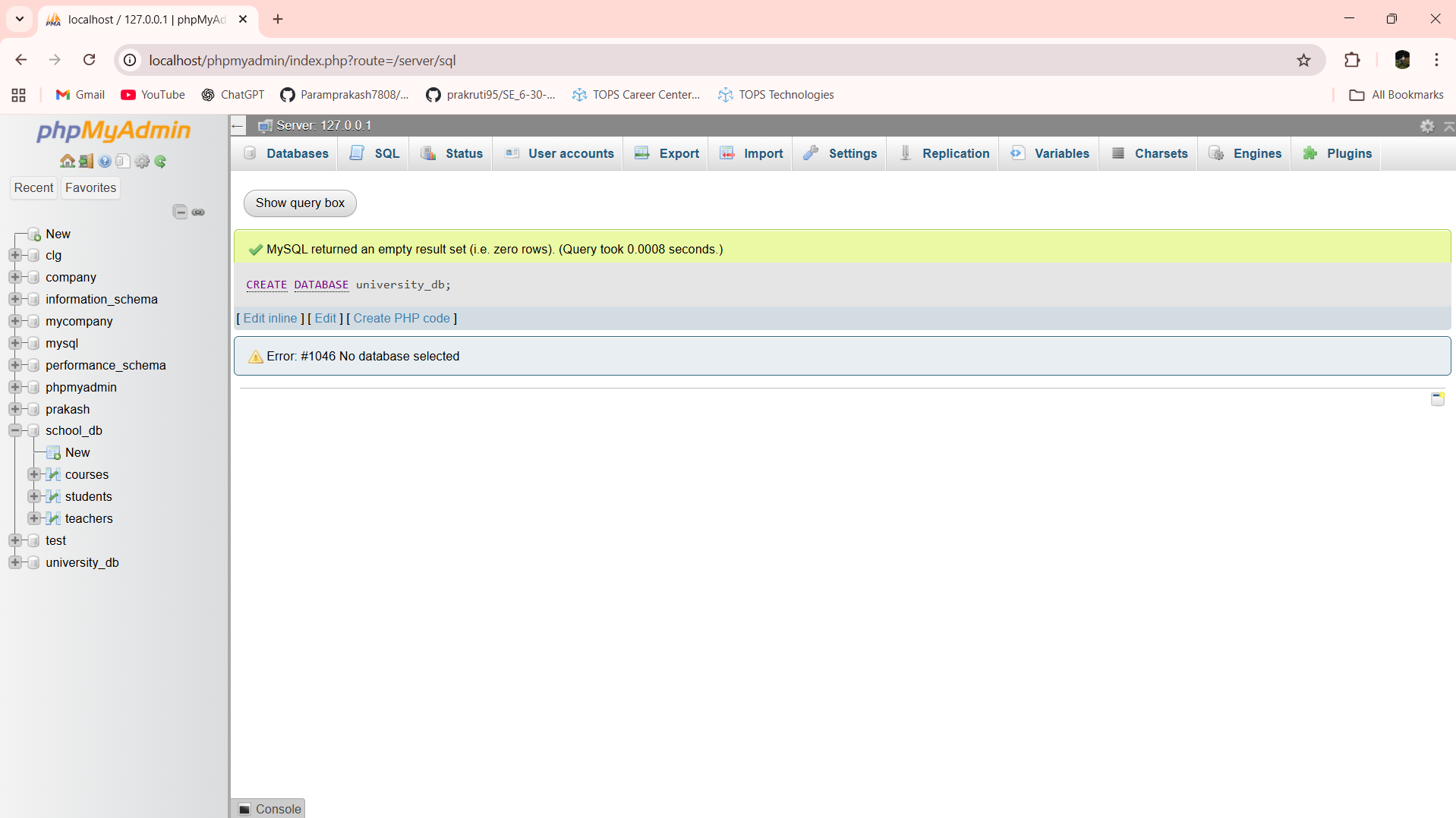
Lab 4.1: Create a table courses with columns: course\_id, course\_name, and course\_credits. Set the course\_id as the primary key.

Ans:- CREATE TABLE courses(course\_id int PRIMARY KEY AUTO\_INCREMENT,course\_name varchar(30),course\_credits int)



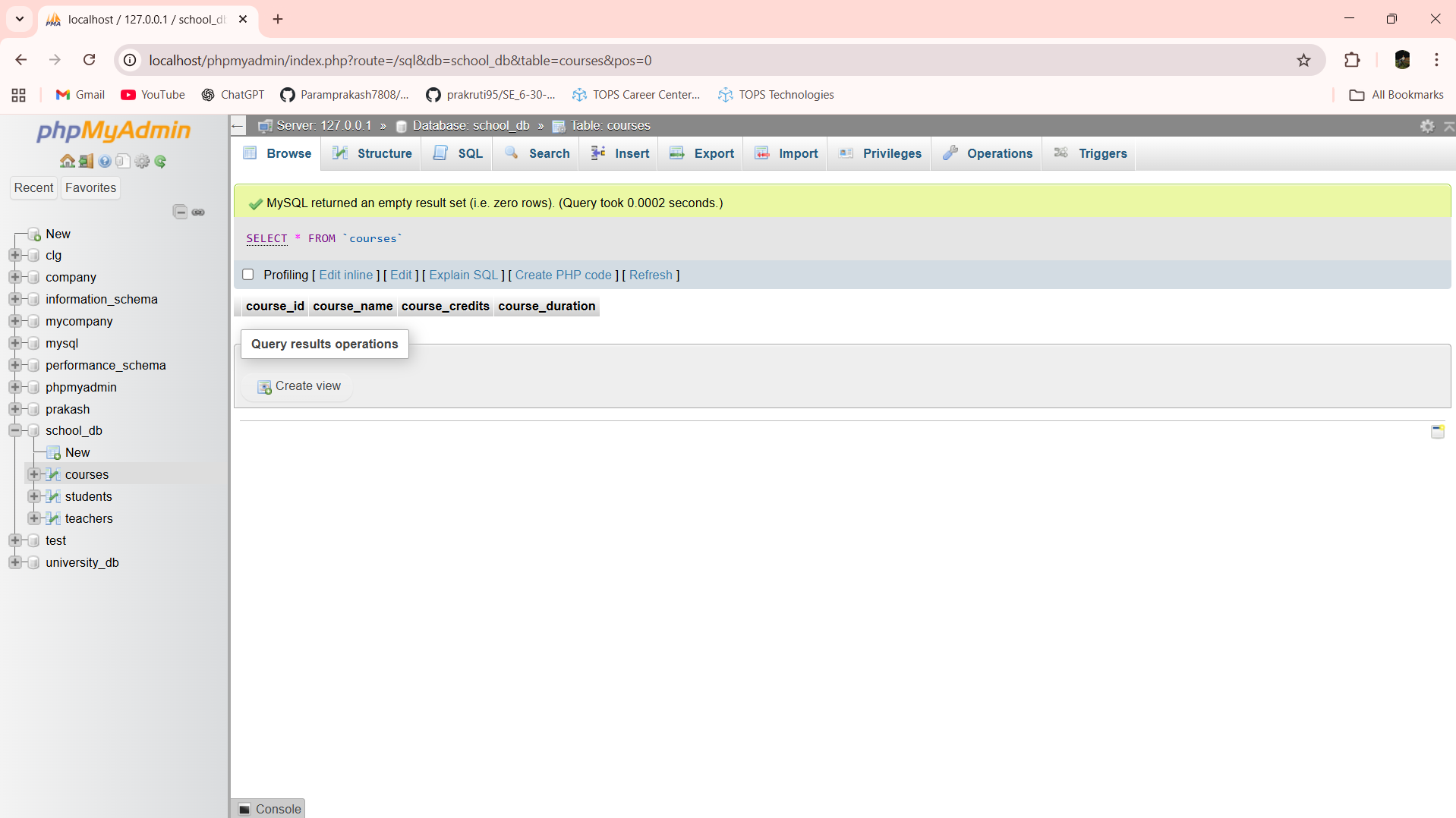
Lab 4.2: Use the CREATE command to create a database university\_db.

Ans:- CREATE DATABASE university\_db



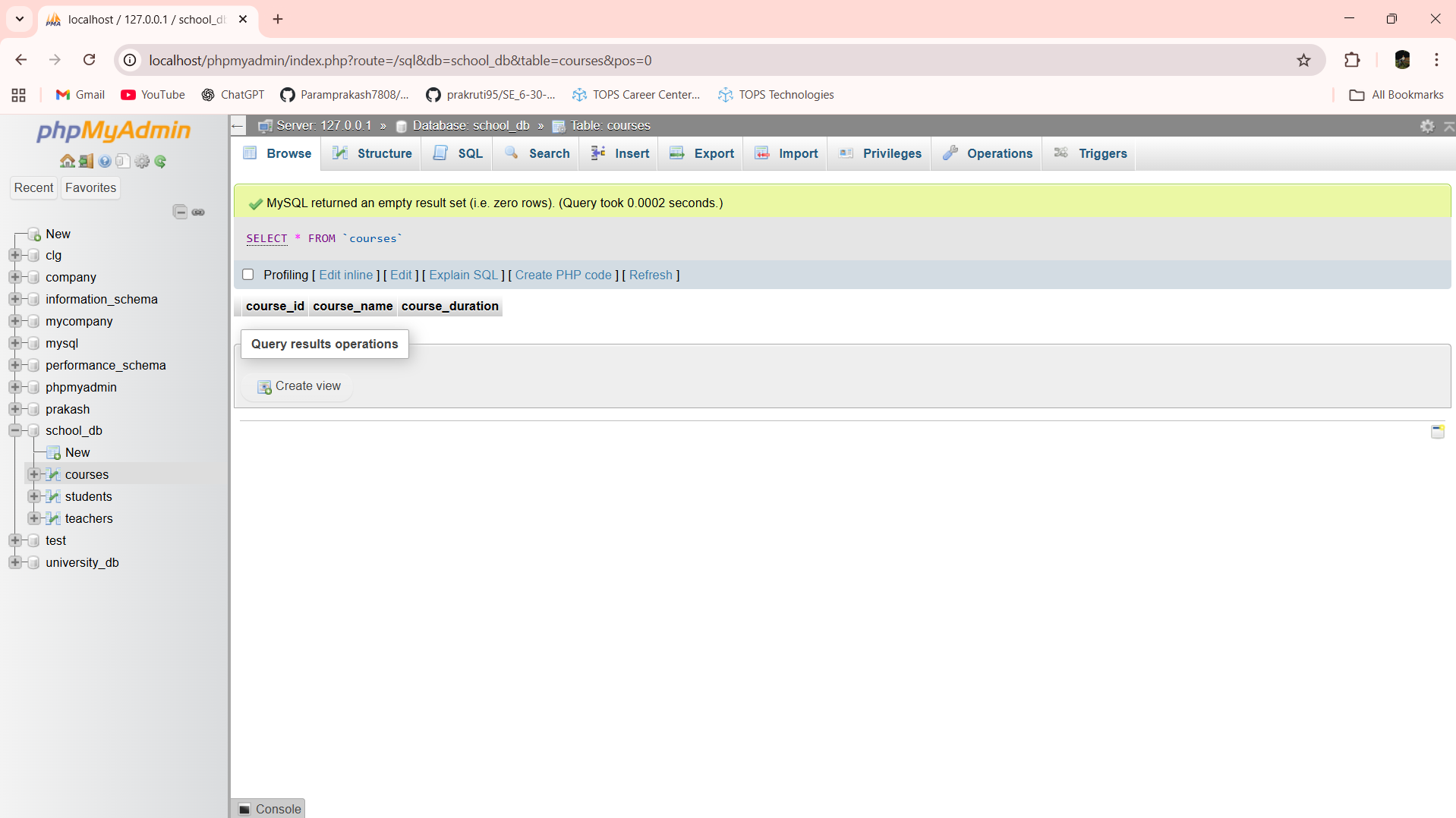
Lab 5.1: Modify the courses table by adding a column course\_duration using the ALTER command.

Ans:- ALTER TABLE courses ADD course\_duration varchar(30)



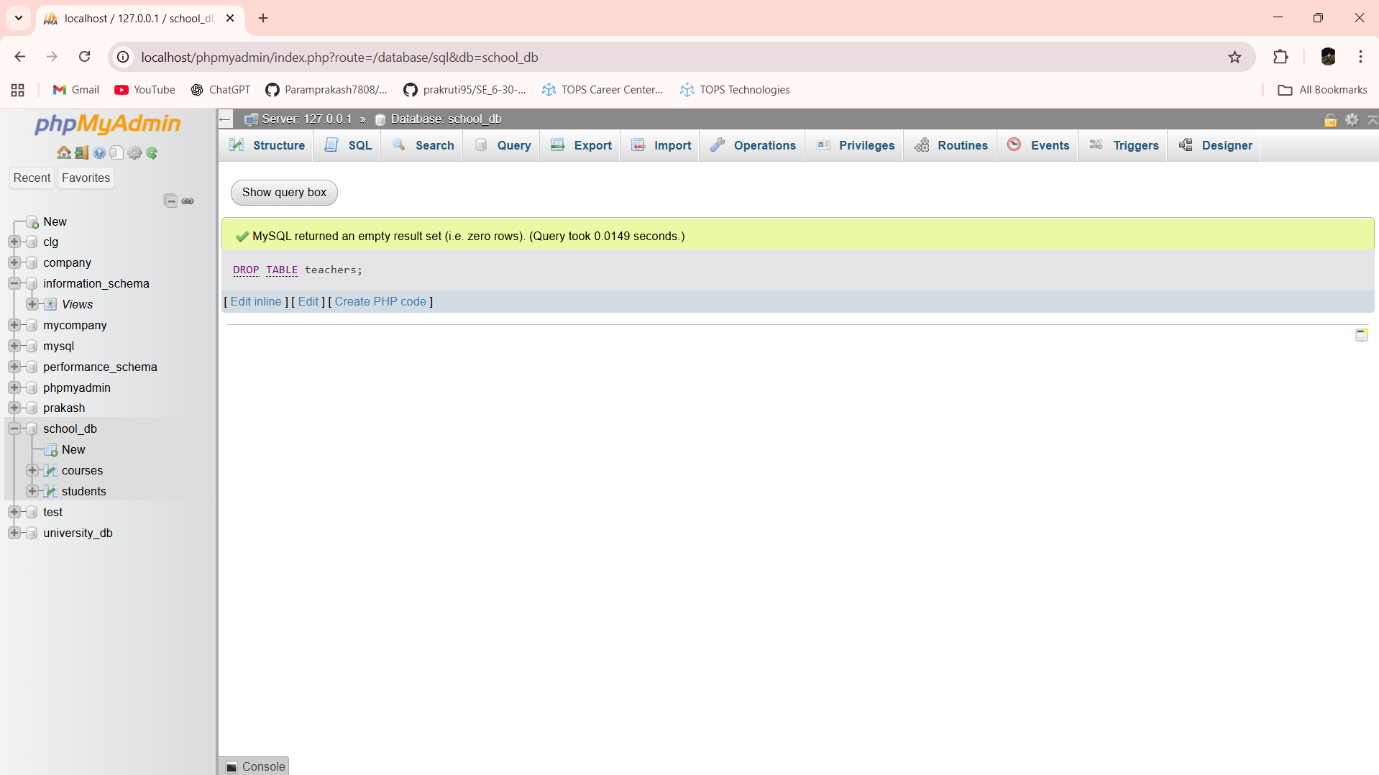
Lab 5.2: Drop the course\_credits column from the courses table.

Ans:- ALTER TABLE courses DROP COLUMN course\_credits



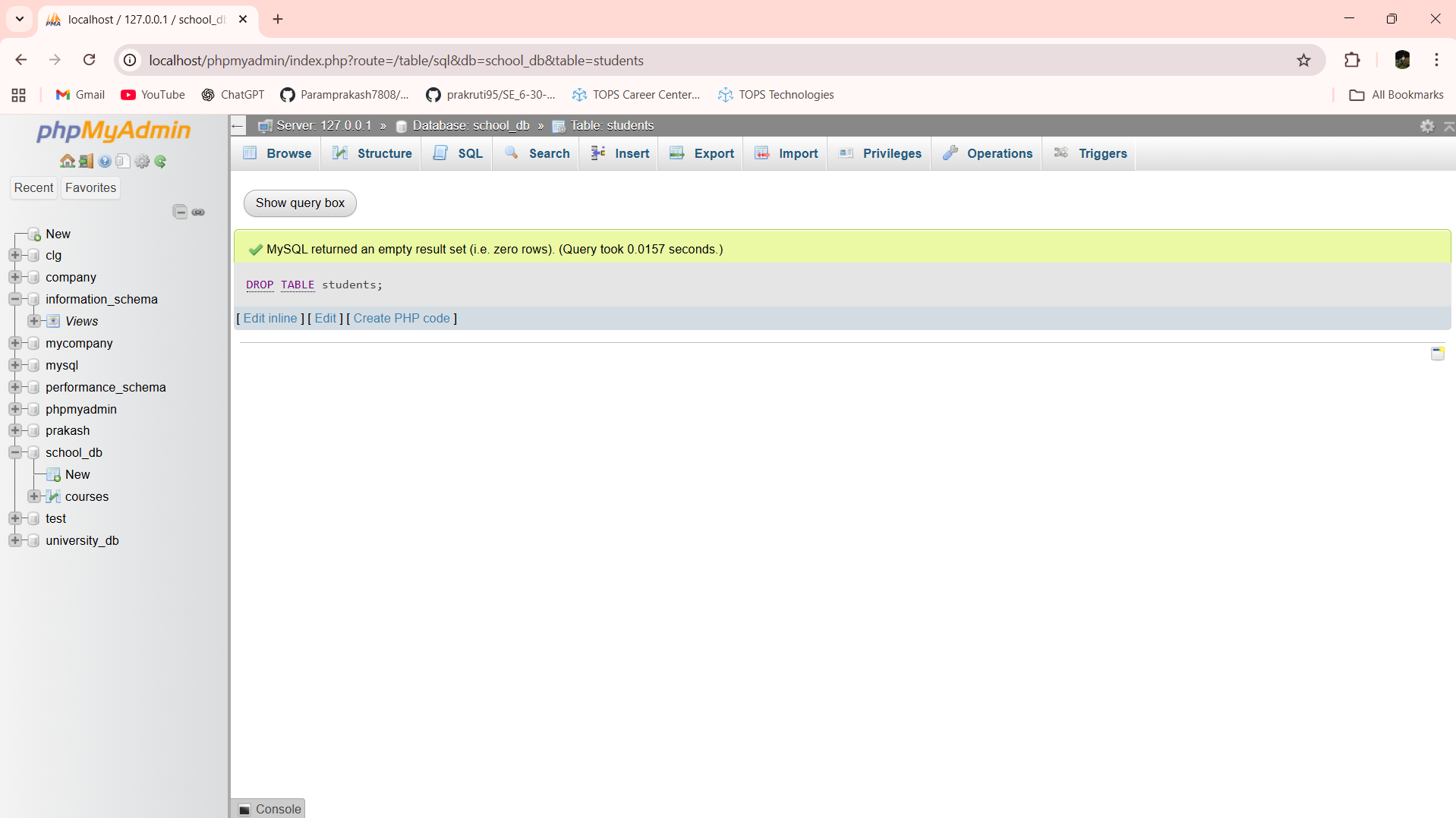
Lab 6.1: Drop the teachers table from the school\_db database.

Ans:- DROP TABLE teachers



Lab 6.2: Drop the students table from the school\_db database and verify that the table has been removed.

Ans:- DROP TABLE students

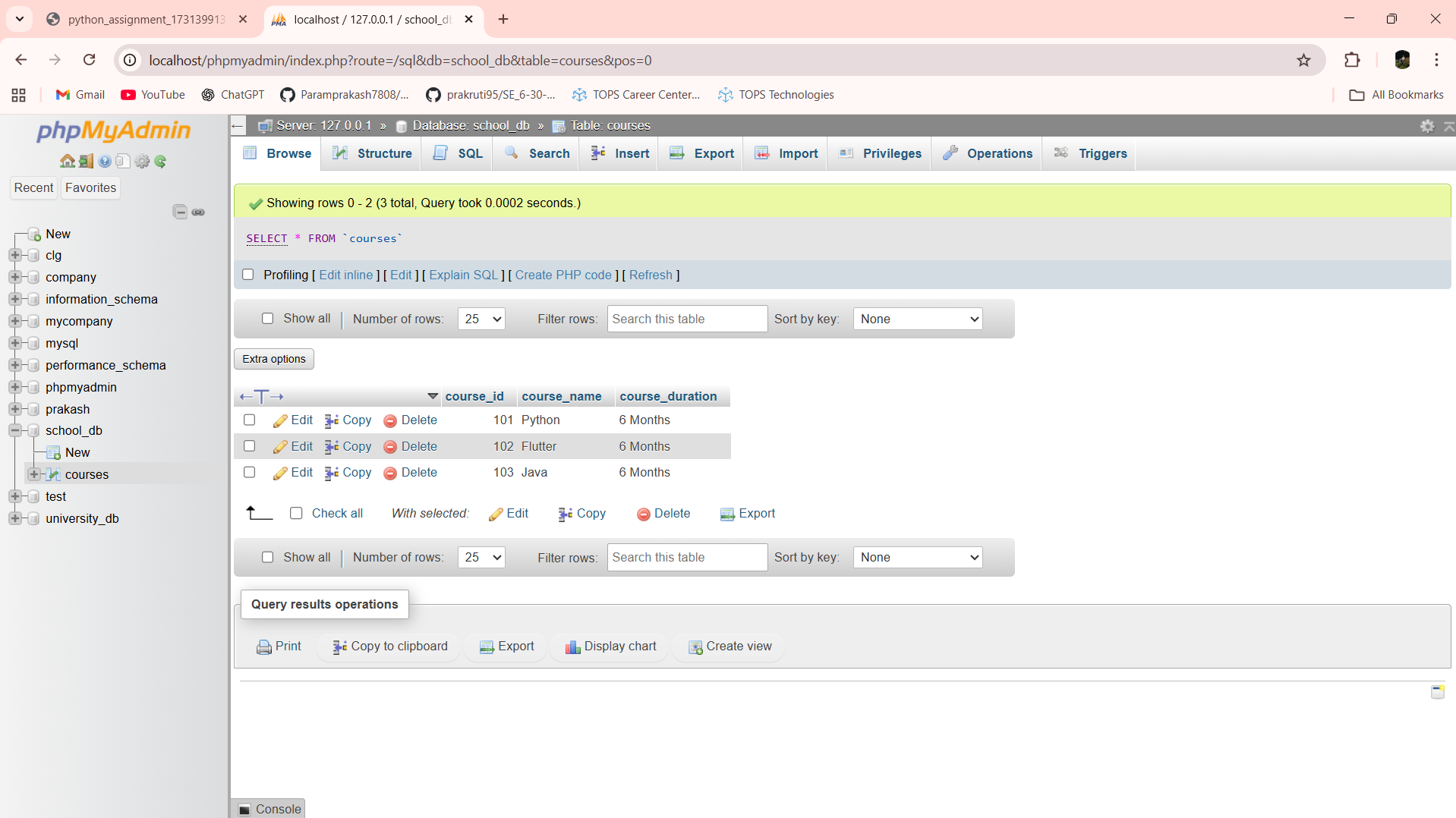


Lab 7.1: Insert three records into the courses table using the INSERT command.

Ans:- INSERT INTO courses (course\_id,course\_name,course\_duration) VALUES (101,'Python','6 Months')

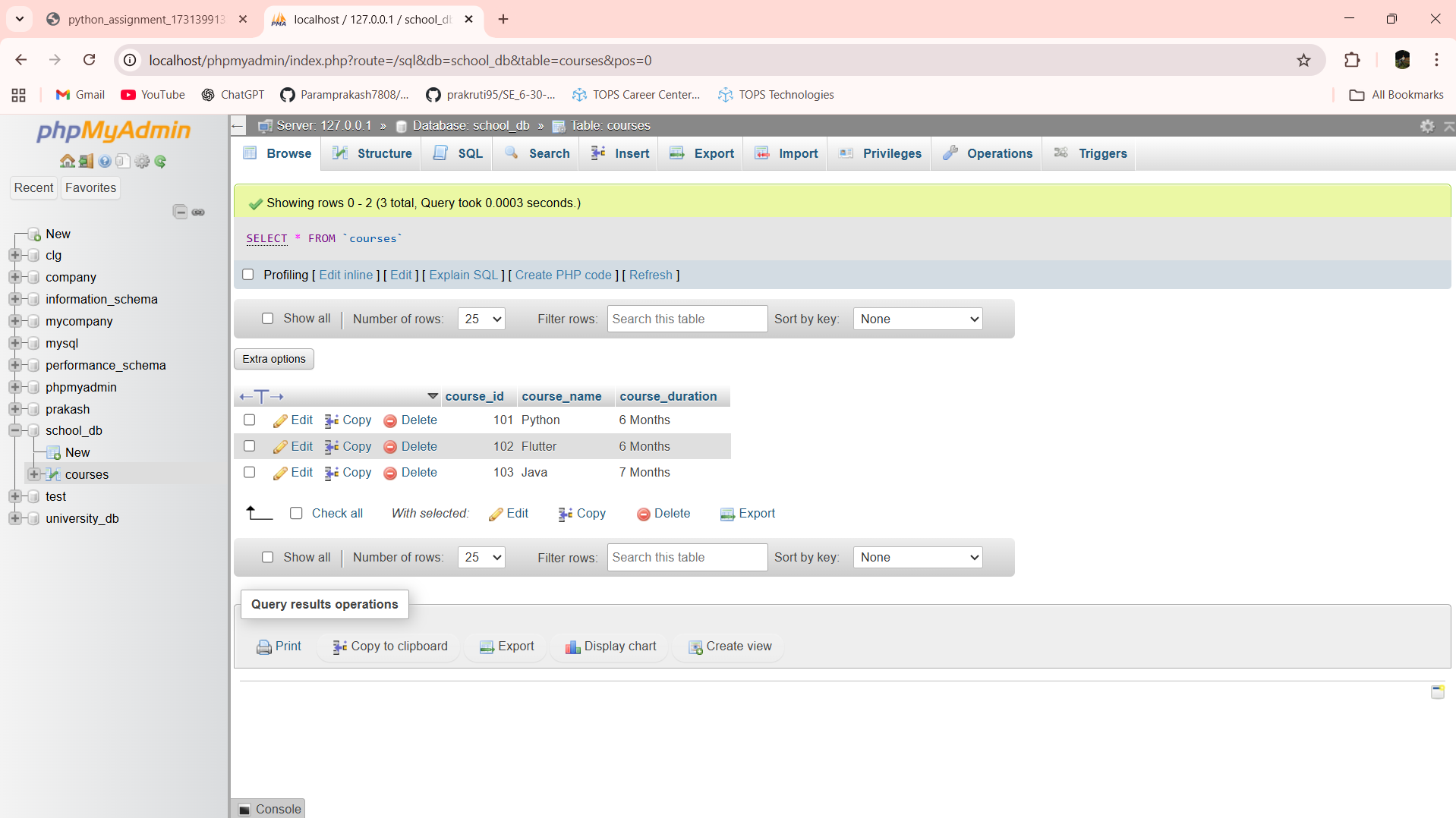
INSERT INTO courses (course\_id,course\_name,course\_duration) VALUES (102,'Flutter','6 Months')

INSERT INTO courses (course\_id,course\_name,course\_duration) VALUES (103,'Java','6 Months')



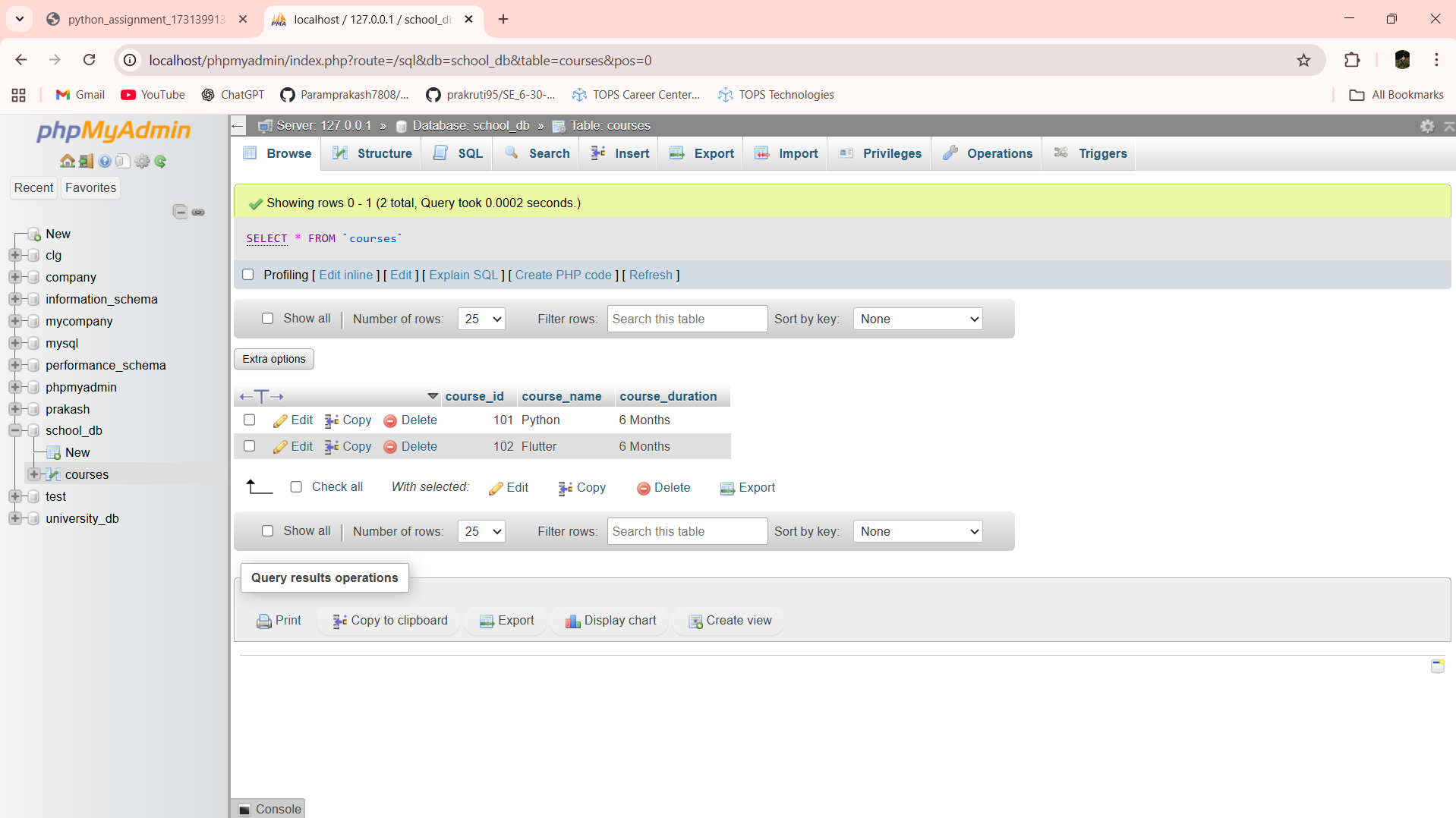
Lab 7.2: Update the course duration of a specific course using the UPDATE command.

Ans:- UPDATE courses SET course\_duration = '7 Months' WHERE course\_id = 103



Lab 7.3: Delete a course with a specific course\_id from the courses table using the DELETE command.

Ans:- DELETE FROM courses WHERE course\_id = 103



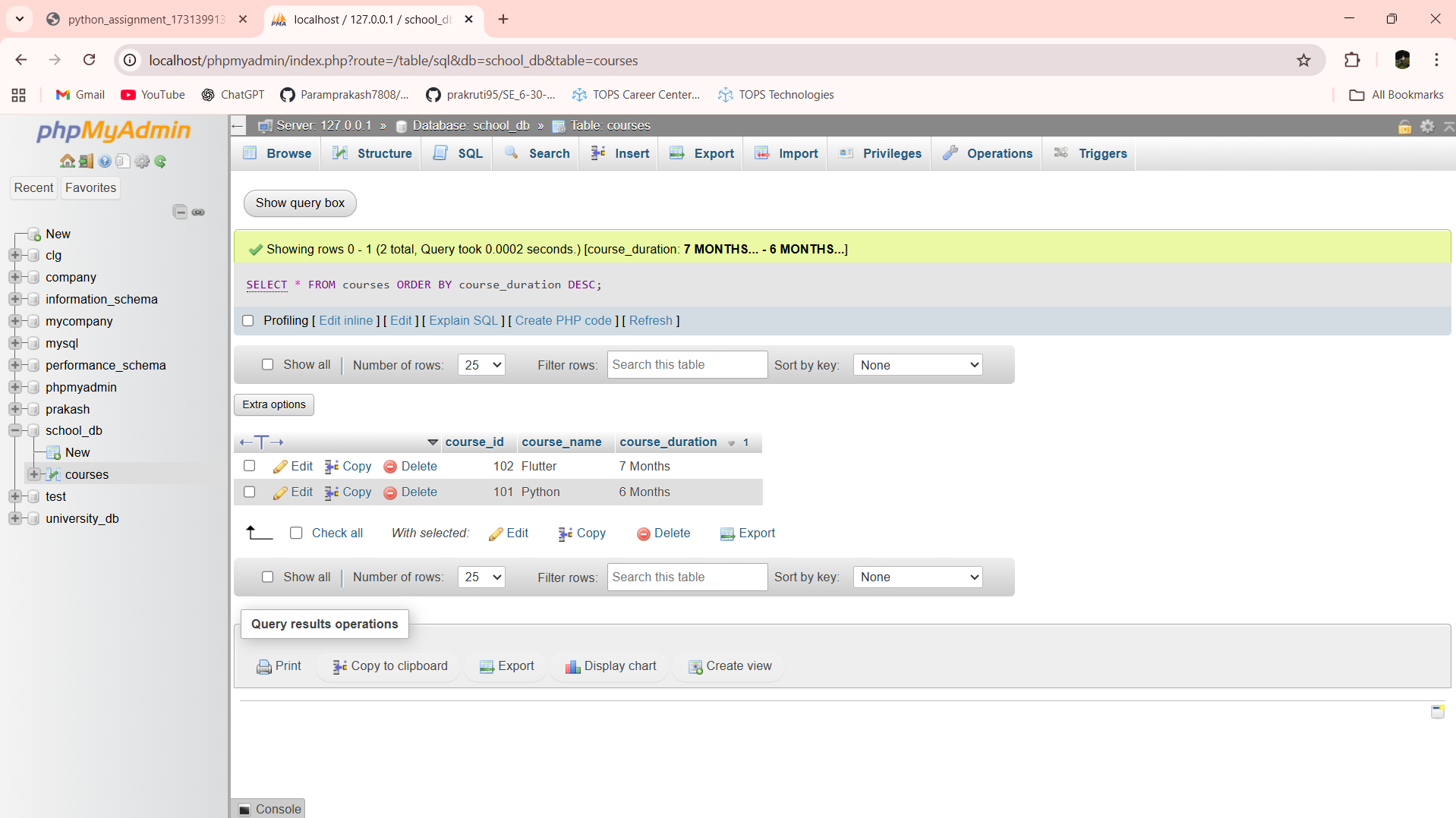
Lab 8.1: Retrieve all courses from the courses table using the SELECT statement.

Ans:- SELECT \* FROM courses



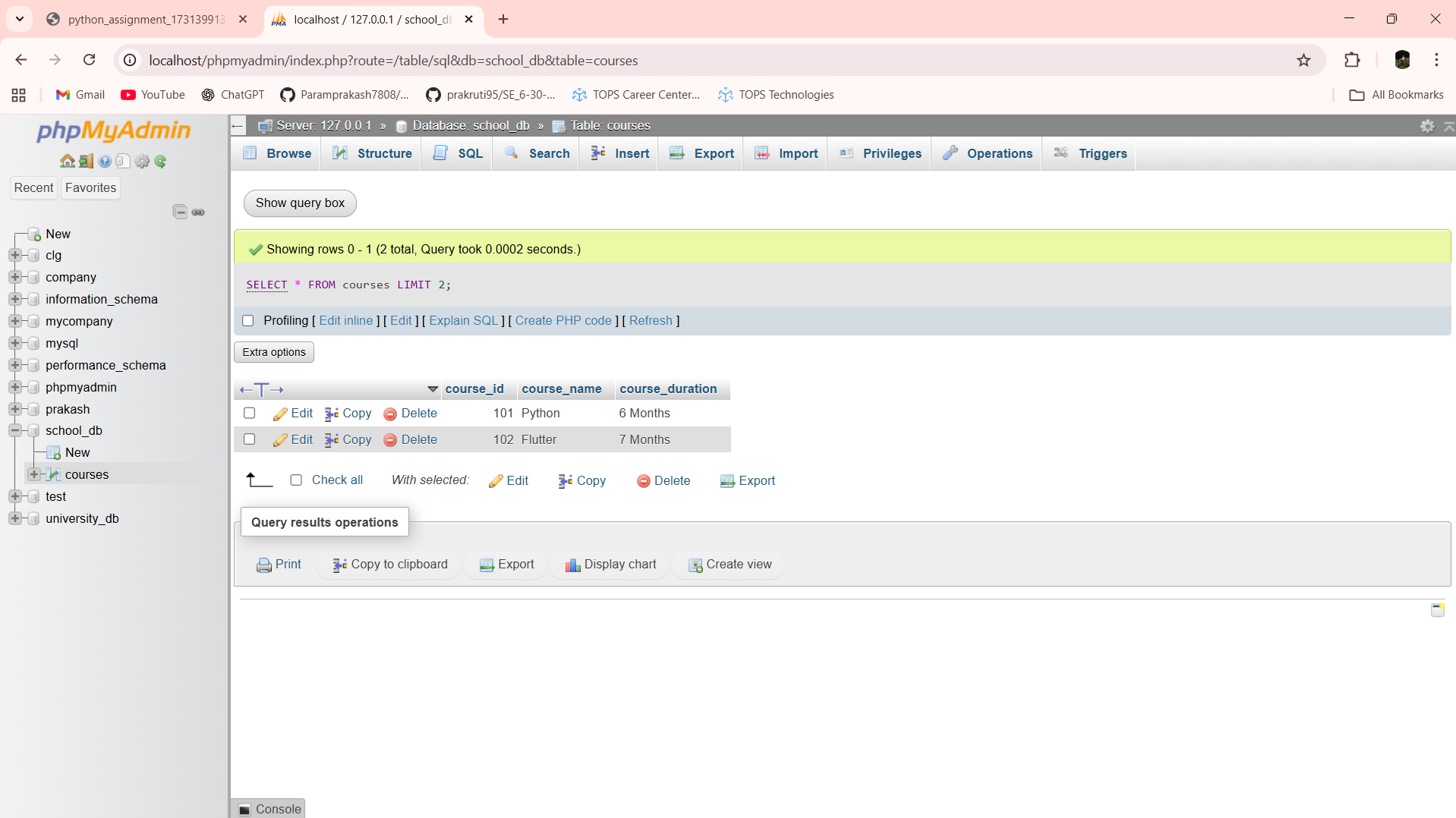
Lab 8.2: Sort the courses based on course\_duration in descending order using ORDER BY.

Ans:- SELECT \* FROM courses ORDER BY course\_duration DESC



Lab 8.3: Limit the results of the SELECT query to show only the top two courses using LIMIT.

Ans:- SELECT \* FROM courses LIMIT 2



Lab 9.1: Create two new users user1 and user2 and grant user1 permission to SELECT from the courses table.

Ans:-