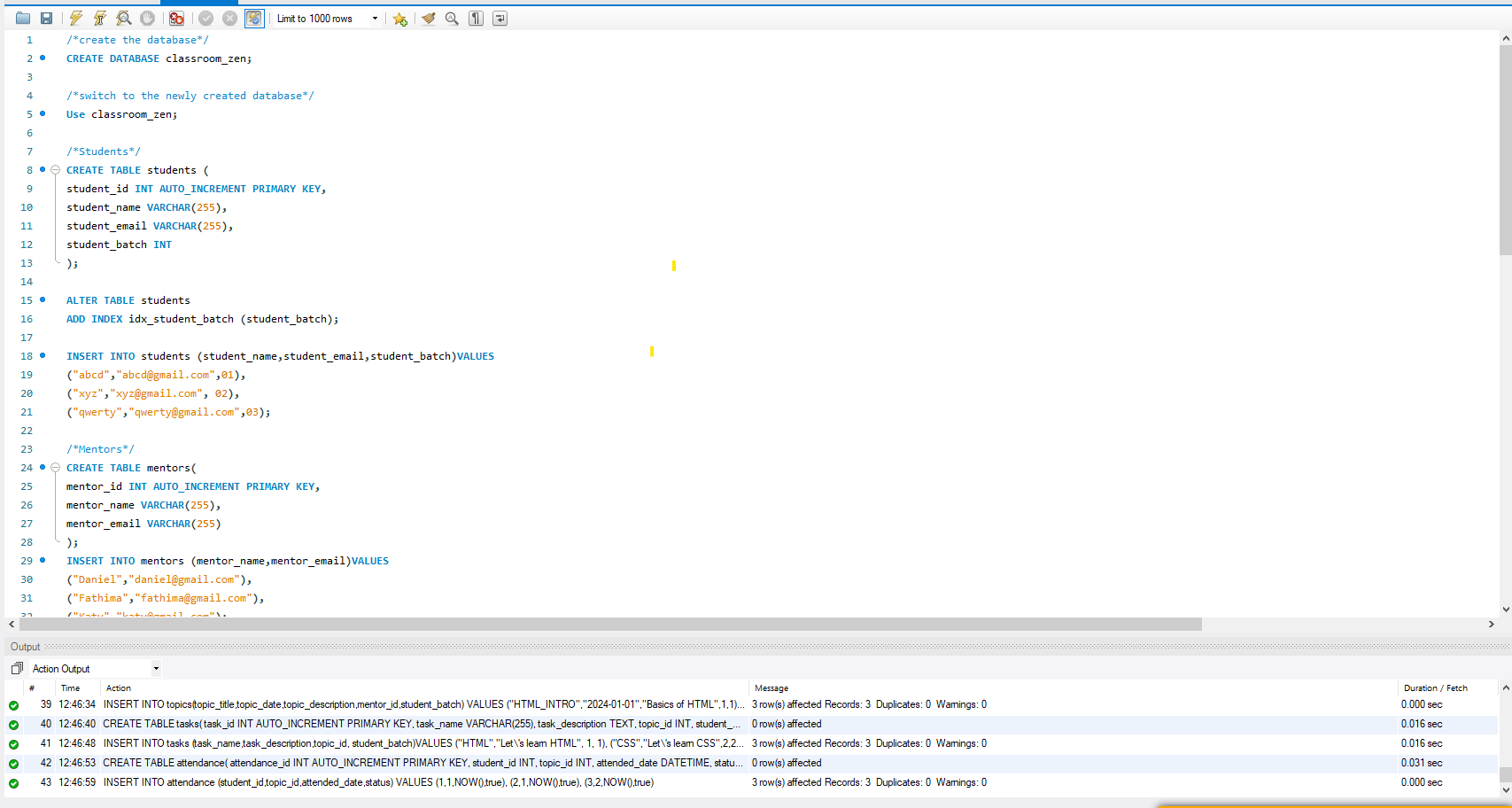
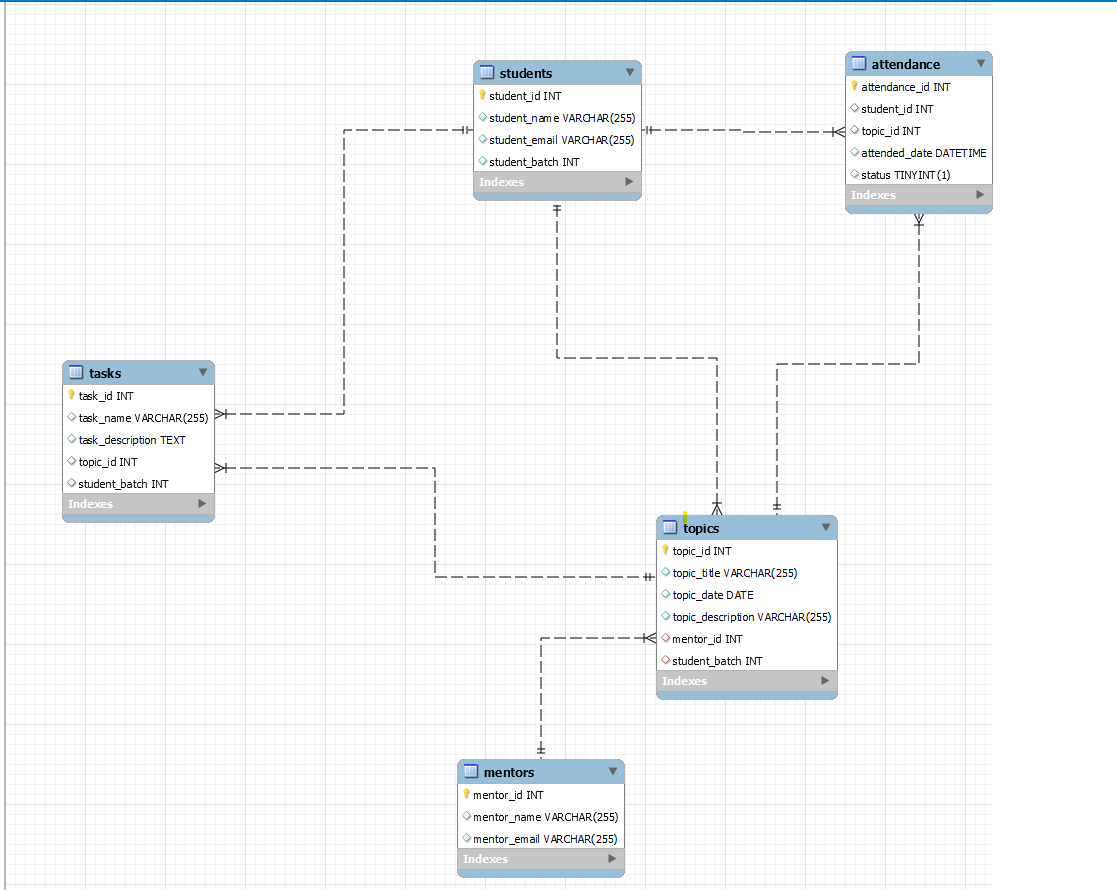
**MY SQL Queries:**



MY SQL EER Diagram:



**MYSQL code:**

/\*create the database\*/

**CREATE DATABASE classroom\_zen;**

/\*switch to the newly created database\*/

**Use classroom\_zen;**

/\*Students\*/

**CREATE TABLE students** (

student\_id INT AUTO\_INCREMENT PRIMARY KEY,

student\_name VARCHAR(255),

student\_email VARCHAR(255),

student\_batch INT

);

/\*An index is created on the student\_batch column for faster query execution \*/

**ALTER TABLE students**

**ADD INDEX idx\_student\_batch (student\_batch);**

INSERT INTO students (student\_name,student\_email,student\_batch)VALUES

("abcd","abcd@gmail.com",01),

("xyz","xyz@gmail.com", 02),

("qwerty","qwerty@gmail.com",03);

/\*Mentors\*/

**CREATE TABLE mentors**(

mentor\_id INT AUTO\_INCREMENT PRIMARY KEY,

mentor\_name VARCHAR(255),

mentor\_email VARCHAR(255)

);

INSERT INTO mentors (mentor\_name,mentor\_email)VALUES

("Daniel","daniel@gmail.com"),

("Fathima","fathima@gmail.com"),

("Katy","katy@gmail.com");

/\*Topics\*/

**CREATE TABLE topics**(

topic\_id INT AUTO\_INCREMENT PRIMARY KEY,

topic\_title VARCHAR(255),

topic\_date DATE,

topic\_description VARCHAR(255),

mentor\_id INT,

student\_batch INT,

FOREIGN KEY (mentor\_id) REFERENCES mentors(mentor\_id),

FOREIGN KEY (student\_batch) REFERENCES students(student\_batch)

);

INSERT INTO topics(topic\_title,topic\_date,topic\_description,mentor\_id,student\_batch) VALUES

("HTML\_INTRO","2024-01-01","Basics of HTML",1,1),

("CSS\_INTRO","2024-02-02","Basics of CSS",2,2),

("REACT\_INTRO","2024-03-03","Basics of REACT",3,3);

/\*Tasks\*/

**CREATE TABLE tasks**(

task\_id INT AUTO\_INCREMENT PRIMARY KEY,

task\_name VARCHAR(255),

task\_description TEXT,

topic\_id INT,

student\_batch INT,

FOREIGN KEY (topic\_id) REFERENCES topics(topic\_id),

FOREIGN KEY (student\_batch) REFERENCES students(student\_batch)

);

INSERT INTO tasks (task\_name,task\_description,topic\_id, student\_batch)VALUES

("HTML","Let\'s learn HTML", 1, 1),

("CSS","Let\'s learn CSS",2,2),

("REACT","Let\'s learn REACT",3,3);

/\*Attendance\*/

**CREATE TABLE attendance**(

attendance\_id INT AUTO\_INCREMENT PRIMARY KEY,

student\_id INT,

topic\_id INT,

attended\_date DATETIME,

status BOOLEAN,

FOREIGN KEY (student\_id) REFERENCES students(student\_id),

FOREIGN KEY (topic\_id) REFERENCES topics(topic\_id)

);

INSERT INTO attendance (student\_id,topic\_id,attended\_date,status) VALUES

(1,1,NOW(),true),

(2,1,NOW(),true),

(3,2,NOW(),true);