Y2 Project - StudentHub

SQL DOCUMENTATION

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Database Used: SQLite

CREATE SQL:

CREATE USERS

```
C:\Users\quan2\OneDrive\Desktop\sqlite-tools-win-x64-3490100>sqlite3 studenthub.db
SQLite version 3.49.1 2025-02-18 13:38:58
Enter ".help" for usage hints.
sqlite> CREATE TABLE Users(
(x1...> userID TEXT PRIMARY KEY,
(x1...> email TEXT UNIQUE,
(x1...> password TEXT,
(x1...> role TEXT CHECK(role IN('Student', 'Professor', 'Admin'))
(x1...> );
sqlite>
```

CREATE COURSES

```
sqlite> CREATE TABLE Courses (
(x1...> courseID INTEGER PRIMARY KEY AUTOINCREMENT,
(x1...> courseName TEXT,
(x1...> professorID TEXT,
(x1...> FOREIGN KEY (professorID) REFERENCES Users(userID)
(x1...> );
sqlite>
```

CREATE GRADES

```
sqlite> CREATE TABLE Grades(
(x1...> gradeID INTEGER PRIMARY KEY AUTOINCREMENT,
(x1...> studentID TEXT,
(x1...> courseID INTEGER,
(x1...> grade REAL,
(x1...> uploadDate TEXT,
(x1...> FOREIGN KEY (studentID) REFERENCES Users(userID),
(x1...> FOREIGN KEY (courseID) REFERENCES Courses(courseID)
(x1...> );
sqlite>
```

CREATE NOTES

```
sqlite> CREATE TABLE Notes(
(x1...> noteID INTEGER PRIMARY KEY AUTOINCREMENT,
(x1...> courseID INTEGER,
(x1...> professorID TEXT,
(x1...> title TEXT,
(x1...> content TEXT,
(x1...> uploadDate TEXT,
(x1...> FOREIGN KEY (courseID) REFERENCES Courses(courseID),
(x1...> FOREIGN KEY (professorID) REFERENCES Users(userID)
(x1...> );
sqlite>
```

CREATE TIMETABLE

```
sqlite> CREATE TABLE Timetable(
(x1...> timetableID INTEGER PRIMARY KEY AUTOINCREMENT,
(x1...> courseID INTEGER,
(x1...> day TEXT,
(x1...> startTime TEXT,
(x1...> endTime TEXT,
(x1...> location TEXT,
(x1...> FOREIGN KEY (courseID) REFERENCES Courses(courseID)
(x1...> );
sqlite> .exit
```

.schema

```
sqlite> .schema
CREATE TABLE Users(
userID TEXT PRIMARY KEY,
email TEXT UNIQUE,
password TEXT,
role TEXT CHECK(role IN('Student', 'Professor', 'Admin'))
);
CREATE TABLE Courses (
courseID INTEGER PRIMARY KEY AUTOINCREMENT,
courseName TEXT,
professorID TEXT,
FOREIGN KEY (professorID) REFERENCES Users(userID)
);
CREATE TABLE sqlite_sequence(name,seq);
CREATE TABLE Grades(
gradeID INTEGER PRIMARY KEY AUTOINCREMENT,
studentID TEXT,
courseID INTEGER,
grade REAL,
uploadDate TEXT,
FOREIGN KEY (studentID) REFERENCES Users(userID),
FOREIGN KEY (courseID) REFERENCES Courses(courseID)
);
CREATE TABLE Notes(
noteID INTEGER PRIMARY KEY AUTOINCREMENT,
courseID INTEGER,
professorID TEXT,
title TEXT,
content TEXT,
uploadDate TEXT,
FOREIGN KEY (courseID) REFERENCES Courses(courseID),
FOREIGN KEY (professorID) REFERENCES Users(userID)
);
CREATE TABLE Timetable(
timetableID INTEGER PRIMARY KEY AUTOINCREMENT,
courseID INTEGER,
day TEXT,
startTime TEXT,
endTime TEXT,
location TEXT,
FOREIGN KEY (courseID) REFERENCES Courses(courseID)
);
sqlite>
```

INSERTING TEST DATA:

```
sqlite> INSERT INTO Users(userID, email, password, role) VALUES
   ...> ('TestStudent', 'student@email.com', 'pass123'
(x1...> ,'Student'),
   ...> ('TestProfessor', 'professor@email.com','prof456','Professor'),
   ...> ('A001', 'admin@email.com', 'admin789', 'Admin');
sqlite> INSERT INTO Courses(courseName, professorID) VALUES
   ...> ('OOP', 'TestProfessor'),
   ...> ('SADT', 'TestProfessor');
sqlite> INSERT INTO Grades(studentID, courseID, grade, uploadDate) VALUES\
   ...> ('TestStudent', 1, 85.4, '2025-03-09');
Parse error: unrecognized token: "\"
  des(studentID, courseID, grade, uploadDate) VALUES\ ('TestStudent', 1, 85.4, '
                                     error here ---^
sqlite> INSERT INTO Grades(studentID, courseID, grade, uploadDate) VALUES
   ...> ('TestStudent', 1, 85.4, '2025-03-09');
sqlite> INSERT INTO NOTES (courseID, professorID, title, content, uploadDate) VALUES
   ...> (1, 'TestProfessor', 'Lecture 1', 'Exception Handling', '2025-03-11');
sqlite> INSERT INTO Timetable (courseID, day, startTime, endTime, location) VALUES
   ...> (1, 'Monday', '09:00', '11:00'
(x1...> , 'Room A101');
```

DATABASE TABLES:

SELECT * FROM USERS

```
sqlite> SELECT * FROM Users;
userID         email                password  role
-------------  -------------------  --------  ---------
TestStudent    student@email.com    pass123   Student
TestProfessor  professor@email.com  prof456   Professor
A001           admin@email.com      admin789  Admin
sqlite>
```

SELECT * FROM COURSES

```
sqlite> SELECT * FROM Courses;
courseID  courseName  professorID
--------  ----------  -------------
1         OOP         TestProfessor
2         SADT        TestProfessor
sqlite>
```

SELECT * FROM GRADES

```
sqlite> SELECT * FROM Grades;
gradeID  studentID    courseID  grade  uploadDate
-------  -----------  --------  -----  ----------
1        TestStudent  1         85.4   2025-03-09
```

SELECT * FROM NOTES

```
sqlite> SELECT * FROM Notes;
noteID  courseID  professorID    title      content             uploadDate
------  --------  -------------  ---------  ------------------  ----------
1       1         TestProfessor  Lecture 1  Exception Handling  2025-03-11
```

SELECT * FROM TIMETABLE

```
sqlite> SELECT * FROM Timetable;
timetableID  courseID  day     startTime  endTime  location
-----------  --------  ------  ---------  -------  ---------
1            1         Monday  09:00      11:00    Room A101
sqlite>
```