Student SQL Database Schema

Stored Data

- [ ] Students
- [ ] Majors
- [ ] Courses
- [ ] Professors
- [ ] Classes
- [ ] Assignments
- [ ] Study Guides
- [ ] AI Chat Logs

Data Structure

STUDENT

- student_id → PK, INTEGER
- student_first_name → TEXT
- student_last_name → TEXT
- student_gpa → REAL
- student_total_credits → INTEGER
- major_id → FK, INTEGER

WORK_LOAD

- student_id → Composite PK, FK (STUDENT), INTEGER
- assignment_id → Composite PK, FK (ASSIGNMENT), INTEGER

SCHEDULE

- student_id → Composite PK, FK (STUDENT), INTEGER
- class_id → Composite PK, FK (CLASS), INTEGER

COURSE

- course_id → PK, INTEGER
- course_name → TEXT
- course_credits → INTEGER
- major_id → FK, INTEGER

PROFESSOR

- professor_id → PK, INTEGER
- professor_name → TEXT
- department → TEXT

CLASS

- class_id → PK, INTEGER
- professor_id → FK, INTEGER
- course_id → FK, INTEGER
- class_type → TEXT

ASSIGNMENT

- assignment_id → PK, INTEGER
- class_id → FK, INTEGER
- assignment_name → TEXT
- assignment_type → TEXT
- assignment_score_weight → REAL

STUDY_GUIDE

- sg_id → PK, INTEGER

- class_id → FK, INTEGER

MAJOR

- major_id → PK, INTEGER
- major_name → TEXT
- department → TEXT

AI_CHAT_LOG

- log_id → PK, INTEGER
- student_id → FK, INTEGER
- timestamp → TEXT
- user_message → TEXT
- ai_response → TEXT

Data Relationships

Many-to-Many

- Students ↔ Assignments (Each STUDENT can have mulitple assigmments & each ASSIGNMENT can be given to multiple students)
- Students ↔ Classes (Each STUDENT can have multiple classes and each CLASS can have multiple students)

One-to-Many

- Courses ↔ Majors (Each COURSE can only be apart of one MAJOR, but each MAJOR can have multiple courses)
- Classes ↔ Professors (Each CLASS can only have one PROFESSOR, but each PROFESSOR can teach multiple classes)
- Classes ↔ Courses (Each CLASS is linked to one COURSE, but each COURSE can have multiple classes)

- Assignments ↔ Classes (Each ASSIGNMENT is linked to one CLASS, but each CLASS can have multiple assignments)
- Study Guides ↔ Classes (Each STUDY GUIDE is linked to one CLASS, but each CLASS can have multiple study guides)