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University Enrollment System

In this project, a simple university enrollment system is used which can store the students and courses and their enrollments. It is aimed to create a functional menu-based program that enables the listing of students, their enrolment into courses, dropping of student, searching student information, displaying the menu and quitting the system.

Relational schema

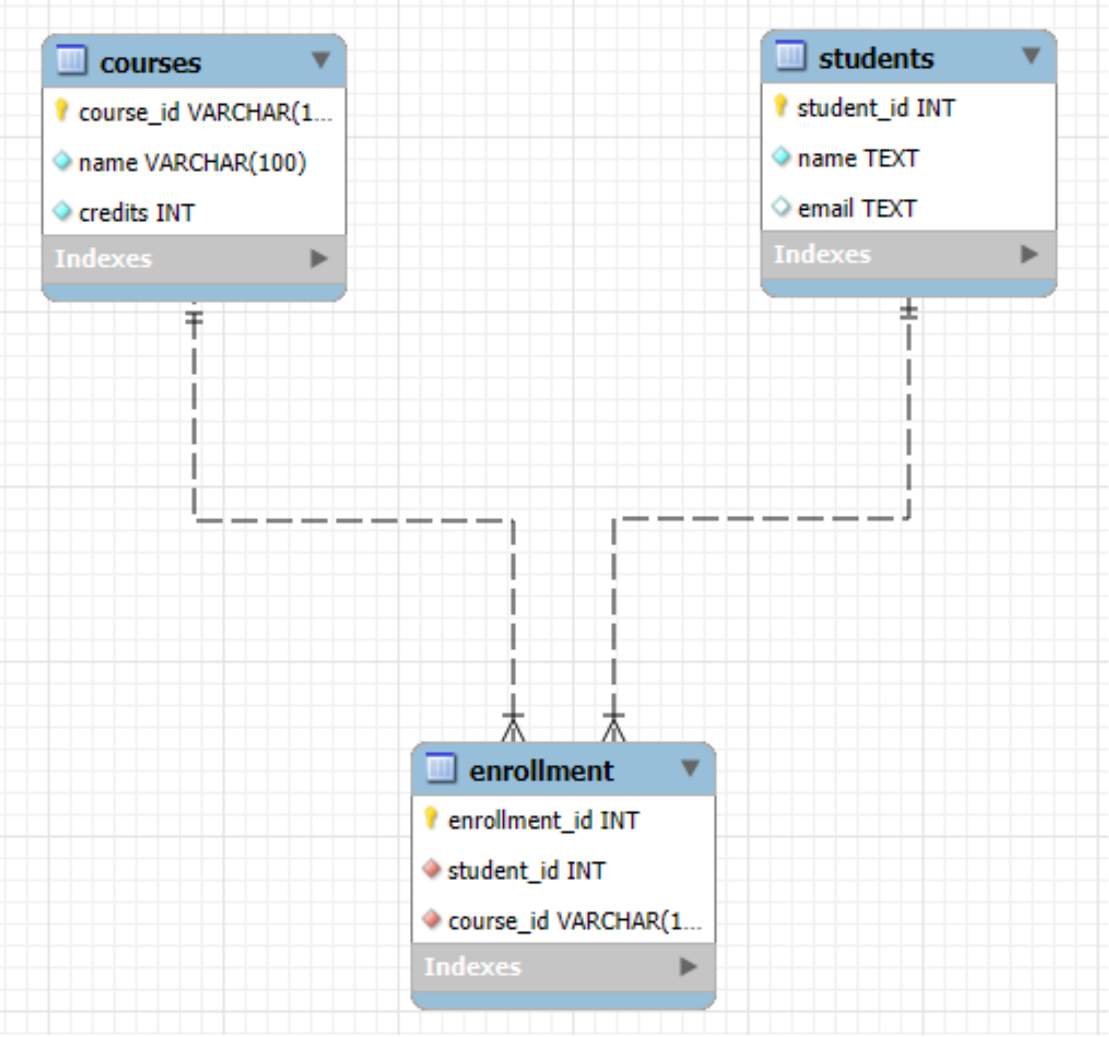
```
STUDENTS(
  student_id INTEGER PRIMARY KEY,
  name TEXT NOT NULL,
  email TEXT
)

COURSES(
  course_id TEXT PRIMARY KEY,
  name TEXT NOT NULL,
  credits INTEGER NOT NULL
)

ENROLLMENT(
  enrollment_id INTEGER PRIMARY KEY AUTOINCREMENT,
  student_id INTEGER FOREIGN KEY → STUDENTS(student_id),
  course_id TEXT FOREIGN KEY → COURSES(course_id),
  UNIQUE(student_id, course_id)
)
```

The basic student information is contained in the student table. The list of the courses is contained in the courses table. The two are linked by the enrollment table that eliminates reenrollments with the help of a uniqueness rule. Foreign keys are used to maintain valid relationships and to ensure that all enrollments are of the kind that refer to an existing student and an existing course.

The system ER diagram incorporates three entities including Student, Course, and Enrollment. Student and Course are connected to Enrollment in a one-to-many way meaning that a student can take as many courses as possible and a course can have as many students as possible. The connection between the two is enrolment.



SQLite as the database engine is stored in the university.db. The necessary sample information is provided: there is at least five students, five courses, and 10 or more enrollment records on it. All the menu choices are implemented by the Python program (university_db.py) which also communicates with the database to execute functions like inserting, deleting and displaying records.