

**CPSC 408**  
**Assignment 2**  
**Spring 2019**

**Overview:**

For this assignment you need to create a python application, that connects to a sqlite database and performs basic database operations.

Develop the following Application/Database.

1. Create a Database(Schema) named StudentDB with the following schema
  - a. Relation/Table
    - i. Student (  
StudentId PK INT,  
FirstName varchar(25),  
LastName varchar(25),  
GPA Numeric,  
Major varchar(10),  
FacultyAdvisor varchar(25)  
)
2. The application should be able to:
  - a. Display All Students and all their attributes.
    - i. Create the necessary SELECT statement to produce this result
  - b. Create Students
    - i. All attributes are **required** when creating new student.
    - ii. Please make sure to validate user input appropriately.
  - c. Update Students
    - i. Only the Major and Advisor attributes can be updated.
    - ii. Make sure you construct a proper UPDATE statement so that you **don't** update every record in the database.
  - d. Delete Students by StudentId
  - e. Search/Display students by Major, GPA and Advisor.
    - i. User should be able to query by the three aforementioned fields