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**Database Design Documentation**

This database will be a simple course/school database and it will consist of 4 tables.

* Students(StudentID has one to many relationship in Enrollment table)
  + STUDENT\_ID (Primary Key)(Not Null)(Char 4)
  + LAST\_NAME (Char 20)
  + FIRST\_NAME (Char 20)
  + ADDRESS (Char 20)
  + STATE (Char 2)
  + PHONE (Char 10)
  + AVERAGE\_GRADE (char 3)
* Courses(One to one relationship with TeacheID from Teacher table, CourseID has one to many relationship in enrollment table )
  + COURSE\_ID (Primary Key) (Not Null)(Char 4)
  + NAME (Char 20)
  + DEPARTMENT (Char 20)
  + DESCRIPTION (Char 30)
  + TEACHER\_ID (Char 4)
* Teachers (Teacher ID has one to one relationship in Course table, TeacherID has one to many relationship in Enrollment table)
  + TEACHER\_ID (Primary Key) (Not Null)(Char 4)
  + LAST\_NAME(Char 20)
  + FIRST\_NAME (Char 20)
  + ADDRESS (Char 20)
  + STATE (Char 4)
  + EMAIL (Char 20)
  + PHONE (Char 10)
* Enrolment(One to many relationship with studentID from student table, One to many relationship with courseID from course table, One to many relationship with teacherID from teacher table)
  + ENROLLMENT\_ID (Primary Key)(Not Null)(Char 10)
    - **Guideline**: ENROLLMENT\_ID is made up of things in this order:
      * First two letters of STUDENT\_ID
      * First two letters in COURSE\_ID
      * Last two numbers in STUDENT\_ID (including zeroes)
      * Last two numbers in COURSE\_ID (including zeroes)
      * Last two numbers in TEACHER\_ID (including zeroes)
  + STUDENT\_ID (Char 4)
  + COURSE\_ID (Char 4)
  + TEACHER\_ID (Char 4)

Procedures

* Usp\_delete\_student\_sp
  + Delete student in student table
* Usp\_delete\_student
  + Delete student in entire database
* Usp\_delete\_teacher\_sp
  + Delete teacher in teacher table
* Usp\_delete\_teacher
  + Delete teacher in entire database
* Usp\_delete\_course\_sp
  + Delete course in course table
* Usp\_delete\_course
  + Delete course in entire database
* Usp\_delete\_enrollment
  + Delete enrollment in enrollment table
* Usp\_update\_student\_last\_name
  + Update entry in student table
* Usp\_upate\_student\_first\_name
  + Update entry in student table
* Usp\_update\_student\_address
  + Update entry in the student table
* Usp\_update\_student\_state
  + Update entry in the student table
* Usp\_update\_student\_phone
  + Update entry in the student table
* Usp\_update\_student\_grade
  + Update entry in the student table
* Usp\_update\_teacher\_last\_name
  + Update entry in teacher table
* Usp\_update\_teacher\_first\_name
  + Update entry in teacher table
* Usp\_update\_teacher\_address
  + Update entry in teacher table
* Usp\_update\_teacher\_state
  + Update entry in teacher table
* Usp\_update\_teacher\_email
  + Update entry in teacher table
* Usp\_update\_teacher\_phone
  + Update table in teacher table
* Usp\_update\_course\_name
  + Update entry in course table
* Usp\_Update\_course\_department
  + Update entry in course table
* Usp\_update\_course\_description
  + Update entry in course table
* Usp\_update\_course\_teacher\_id (Would be used if teacher went from teaching SC01 to SC02 and the other teacher went from teaching SC02 to SC01.
  + Update in course table and enrollment table
* Usp\_update\_enrollment
  + Update entry in enrollment table
* Usp\_insert\_student
  + Insert entry in student table
* Usp\_insert\_teacher
  + Insert entry in teacher table
* Usp\_insert\_course
  + Insert entry in course table
* Usp\_insert\_enrollment
  + Insert entry in enrollment table