Create a XML schema along with all the types needed so that the XML document that you have created in homework 2 is a valid instance conforming to the XML schema.

For this homework, you should be able to enforce all the constraints that were listed in the previous one. Please make sure that the following constraints are also satisfied:

- The StudentID is a string containing 9 digits (or an integer of length 9, leading zeros are possible)
- The number of semester at NMSU has to be a non-negative integer
- There are no two departments with the same names at NMSU
- The transcript of a student should be a list of elements, each consists of the following three elements:
    - CourseCode – the code of the class
    - Semester – the semester in which the student took *CourseCode* – which is either "Fall "or "Spring" plus the year
    - Grade – the grade obtained for the course

***Bonus question***: Suppose that a student has to take 9 credit hours per semester (or 3 courses). Can you find a way to represent the constraint that the number of courses in the transcript of a student must equal the number of semesters he/she has been at NMSU multiply 3.

Here is the text of the homework 2:

Create a XML document along with a DTD representing a list of graduate students in the semantic web class that satisfies the following conditions:

- The information for each student should include:
    - Student ID,
    - Name (First, Last, Middle),
    - Major,
    - Number of Semester at NMSU,
    - Degree pursuit,
    - Interests, and
    - his/her Transcript.
- Do you best to make sure that
    - the Student ID is unique,
    - the Major is one of the department names at NMSU,
    - the degree is one of the degrees offered by the CS department (doctoral, master, bachelor)
    - the class on the transcripts is one of the class offered by NMSU
- List the constraints that you can (and cannot) enforce in this representation.

You should submit a XML document which contains some student records and a DTD. The document should be *valid* with respect to the DTD.