Design a set of relational database tables to store the below described datasets. We do not need SQL create scripts (though that is fine). Pseudo-code is fine, but be sure to describe table name, column names, and column types.

A school would like to setup a new grade management system. They would like to record information about each teacher, specifically, the teacher’s full name and their room number. Teachers might teach different grades year to year. The school would like to store which grade level a teacher taught each year (assume grade levels are numeric 0-12 and school years are single year statements such as 2003). Also, the school would like to have each student’s basic information stored; first and last name, age, birthdate. The school would like to be able to know which students were in which teachers’ classes (assume a student could have more than one teacher) for which school years (example: 2003). Finally, the school needs to track student grades. Also, grades will be stored in the same table from year to year so along with the grade, the school would like the school year (example: 2003) the grade was entered to be stored. The school district does not use a standard A-F grading scale. The grade system currently is “Does not meet expectations, Needs Improvement, Meets Expectations, Exceeds Expectations”. However, the school district will at times pass down new scales. Design the table(s) such that new grades can be added without impacting the student’s old grades.

Using your design, write a sql select statement for a student roster for a given teacher and school year. The data should include the student’s full name and grade level.

Using your design, write a sql select statement for a report card for a given student and school year. The data should include each teacher the student had that year and the student’s grade for that teacher.

Using your design, write an update statement that moves all students from a given teacher to a different given teacher for a given school year.

In a few sentences describe what changes would need to be made to your design if the school district decided to add a numeric GPA value to each of their grades. Can you still support adding new grading scales?