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Elementary Gradebook Problem Statement

Teachers can sometimes find shifting through all their students and grading manually to be tedious. Our elementary gradebook will be able to make a teacher's students and their assignments easily accessible. The program will allow a teacher to see a list of their students with their student ID, names, grades and Percentage. All students will have different grades and percentages calculated off the specific student score for an assignment the teacher made. Once the teacher finds the student they're looking for they'll have the option to edit or delete the student's information or change an assignment specifically for the student they've selected. When the teacher wants to add a new student, they will be prompted with a dialog box asking for the first and last name of the student. We've also implemented validation by checking to see if they failed to enter a first or last name, they will get an error saying that they are missing a necessary field. When the teacher wishes to see all their assignments, they can easily click on an assignments button to see the list of all their assignments with the assignment's total score. If the teacher decided to click a specific assignment, they will instead be directed to a separate window which will list all their students with the selected assignment to easily edit all their scores for the

assignment. From this page they'll be able to edit the assignment if they decide the assignment should be worth more points or even delete it. Once the teacher is done entering all the student's scores, they will all update simultaneously once the teacher clicks the save button. We'll have serialization for students and assignments, so the teacher will be able to save all their changes to a file for those lists. For exception handling we've added our own custom score exception class which checks whether a score is a valid number. Lastly, for testing, we've added a test class that tests all our methods ranging from adding students and removing students, calculating grades and percentages, adding and removing assignments, and changing all the previously mentioned.



