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Intern Assignment – Week 1

**Debug Project**

1. **System.NullReferenceException [line 25 – *Program.cs*]**
   * The error occurred because the line originally read:

StudentGrade grade = null;

* + This will cause an error since grade was never actually initialized to anything. The correct code is:

StudentGrade grade = new StudentGrade();

1. **System.NullReferenceException [line 29 – *Program.cs*]**
   * The error occurred because the line originally read:

List<StudentGrade> gradeList = null;

* + gradeList was never initialized, the same error as above. To correct this, I changed the line of code to say:

List<StudentGrade> gradeList = new List<StudentGrade>();

1. **System.FormatException [line 27 – *Program.cs*]**
   * The error occurred based upon the data in the text file *StudentGrades.txt.*
   * Under the sixth person’s grade log (**Rena**), the points possible was “test”, instead of 100.
   * This was very clearly, well… a test. Since “test” is not a number, the implicit conversion (***int.Parse(row[2])***) yielded an error.
   * Originally, I just changed the text file from “test” to “100.” However, I figured that may be too easy, so I went with an if statement testing whether the *PointsPossible* was 100 or not. Therefore, “test” will be caught and the points possible will manually be set to 100.

if(!row[2].Equals("100"))

{

grade.PointsPossible = 100;

}

else

grade.PointsPossible = int.Parse(row[2]);

1. **System.DivideByZeroException [line 19 – *StudentGrade.cs*]**
   * Here we again have an error stemming from the text file mentioned above.
   * Under the last person’s grade (**Adam**), the points possible was “0” instead of 100.
   * Given that dividing by zero is impossible, I made another if statement (similar to the one above) that tested the possible points, and anything other than 100 would be caught and manually reset to 100.

if (this.PointsPossible != 100)

this.PointsPossible = 100;

1. **System.ArgumentOutOfRangeException [line 44 – *Program.cs*]**
   * The last error occurred due to a simple for loop issue.

for (var x = 0; x <= grades.Count; x++ )

* + The above loop runs from zero to grades.Count. Since the number of people in the grade log is 9, grades.Count will equal 9.
  + However, index 9 will not exist within the grades array, causing the index out of bounds error. Removing the equals sign will fix this problem:

for (var x = 0; x < grades.Count; x++ )