**Project Title: Student Performance Analysis Report – School XYZ**

**Project Overview**  
You have been contracted by School XYZ to perform an urgent analysis of a student dataset spanning a 3-year academic period. The purpose of this analysis is to track and assess the academic performance of a consistent group of students through Senior Secondary levels SS1, SS2, and SS3. This analysis supports ongoing educational research efforts within the school.

Your primary task is to explore the dataset and extract meaningful insights as outlined in the project requirements below.

**Dataset**  
An Excel file has been provided in the attachment section of this project. Please download and use this file as the basis for your analysis.

**Project Requirements**  
Using Microsoft Excel, perform the following:

1. **Calculate Students' Ages**
   * Derive each student's age in the "Age" column using the available birthdate or year.
2. **Compute Total Scores per Subject**
   * For each student, calculate the total score by summing their Test, Exam, and Attendance scores per subject.
3. **Identify the Most Common Graduation Age**
   * Determine the age that appears most frequently among graduating students.
4. **Determine Age Extremes Among Graduates**
   * Identify the youngest and oldest graduating students, providing their names, ages, and genders. Also, calculate the age difference between them.
5. **Find the Year with the Highest Pass Rate**
   * Analyze and identify the academic year with the highest overall pass rate.
6. **Complete the Totals Tab**
   * Populate the empty summary tables in the “Totals” sheet using 3D references where appropriate.
7. **Analyze Gender Distribution**
   * Calculate and present the ratio of male to female students. Create a chart to visually display this ratio.
8. **Identify Subjects with Best Pass Rates**
   * Determine which subject had the highest pass rate overall and per academic year.
9. **Identify Subjects with Lowest Pass Rates**
   * Determine which subject had the lowest pass rate overall and per academic year.
10. **Identify Top Students per Year**
    * For each academic year, identify the best-performing student based on highest average score and fewest subjects failed.
11. **Identify the Overall Best Student**
    * Across all years, identify the single best-performing student using the same criteria (highest average score and fewest subjects failed).
12. **Explore Additional Insights**
    * Propose or extract any other meaningful insights or trends from the dataset. Are there noticeable academic or behavioral patterns?
13. **Investigate Relationships Between Variables**
    * Assess whether there's any correlation between age, class attendance, and performance. Provide explanations or evidence to support your conclusion.

**Prerequisites**

* Proficiency in Microsoft Excel
* Understanding of basic data analysis techniques

**Helpful Excel Functions**  
Consider using the following functions during your analysis:  
LEFT, RIGHT, AVERAGE, MODE, SUM, IF, COUNTIF, MAX, MIN, INDEX