**Software Implementation and Testing Document**

**For**

**Group R1**

Version 1.0

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# Programming Languages (5 points)

The programming language being used is C#. We are using it for the backend because of it’s scaling and maintainability. It integrates well with .NET which assists heavily with web applications.

# Platforms, APIs, Databases, and other technologies used (5 points)

.NET will be used as a framework to implement C# and Blazor for our front-end development. VScode is used as the text editor to create needed for the program.

# Execution-based Functional Testing (10 points)

To test functional requirements, we ran the main program using .Net. Each menu option was selected including false entries to test error handling. Students and Classes were created and illustrated by printing them out to console.

# Execution-based Non-Functional Testing (10 points)

While running through the program functions the amount of time each took went into consideration. All functions ran in an orderly time. Specific test cases were utilized to ensure that requirements were met.

# Non-Execution-based Testing (10 points)

Each group member reviewed the code looking for syntax errors and understanding. Code was implemented in branches and after review would be merged with main. Comments were made to explain choices and make connections.