Debugging and Logging Assignment

1. Task 1: Debugging a Buggy Code

1.A. Introduction

You are provided with a C++ program that aims to perform matrix multiplication. However, there is a hidden logical error in the code that results in incorrect output. Your mission is to debug this program and ensure it correctly multiplies matrices.

1.B. Tasks

1. Understanding the Code: Begin by thoroughly reviewing the given C++ program, including the structure of the Matrix class, the matrix multiplication logic, and the main function.
2. Identifying the Error: Compile and run the program **using the appropriate gcc flags** to observe its behavior. Investigate and document the logical error you believe is causing the incorrect output.
3. Debugging the Program: Utilize the provided debugging techniques using gcc and gdb. Set breakpoints, inspect variables, and step through the code to pinpoint the error's source.
4. Correcting the Error: Once you've successfully identified the error, fix it in the code. Compile the corrected program and verify that it now produces the correct matrix multiplication results.
5. Documentation and Reporting: Create a comprehensive report summarizing your debugging process. Include explanations of the identified error, debugging steps, any code changes made, and the final, correct output of the program.

Submission:

- The compilation command that you used to compile and debug the program.
- The updated code including the fix.
- Comprehensive report summarizing your debugging process.

Submission Deadline: Tuesday 10th of October 2023