UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

DEPARTMENT OF COMPUTER SCIENCE

CSC362: System Programming

Assignment 1

Question 1: Dynamic Memory Allocation and Common Bugs
Write a C program that dynamically allocates memory for an array of integers, allowing the user to input the number of elements. After filling the array with integers entered by the user, the program should:

- Print the integers in reverse order.
- Deallocate the memory correctly after use.

Your task is to ensure the program is free from common bugs related to dynamic memory allocation. Specifically:

1. Avoid using uninitialized variables.
2. Prevent memory leaks.
3. Ensure proper allocation size and correct usage of free().

Hint: Consider edge cases such as allocating memory for zero elements or using a pointer before allocation.

Submission Instructions:

- Accept the assignment invitation link via GitHub Classroom.
- Clone the repository to your local machine.
- Work on your program (**question1.c**) within the cloned repository.
- Add, commit, and push your completed program to the GitHub repository.
- Capture a snapshot of the Git commands you used during the process.
- Upload this snapshot to your repository.
- Verify that all your files are correctly uploaded to GitHub.

Final Submission:

Your final repository should include:

- The solved solution (question1.c).
- The screenshot or text file of your Git commands executed in the terminal.