Lab 7: Code Checking

October 24, 2020

Introduction

Problem 0: Various Sundries

1. Write a makefile that will build the code for problems 1 and 2 either normally or with address sanitizer enabled. Hint: remember that you can change makefile variables for a specific target and its dependencies.

2. Make a `.gitignore` that ignores any generated files.

Problem 1: Drip, Drip, Drip, Drip

1. Take a look at `prob1.cpp`. It's a linked list program that has some bugs.

2. Make sure to read and understand the code before attempting to debug it

3. Run it in valgrind. What is the problem?

4. Why is this problem occurring? (What memory is being allocated, and what memory is being freed?. Write your explanation in answers.txt)

5. Fix the bug and check that your fix is correct.

Problem 2: Use wisely

1. Take a look at `prob2.cpp`.

2. Make sure you read and understand the code before attempting to debug it

3. Build `prob2.cpp` with Address Sanitizer.

4. Run it. What is the result?

5. What is the problem? (write your explanation in answers.txt)

6. Fix the bug and check that your fix is correct.

Epilogue

Make sure to add and commit your makefile, gitignore, and fixes to the various problems and push your commits to GitLab!