Week 6 - Testing

Daniel Alyoshin

CSCA48 - TUT002

February 13, 2026

Content Covered so Far

- C programming
- Memory model
- Arrays and strings
- Pointers
- CDTs & ADTs
- Linked lists

Recall - Problem Solving Steps

1. Understand the problem
2. On paper write down the steps to solve it
3. Design the solution (organize it into functions)
4. Implement the solution
5. **Thoroughly test the program**

Testing Steps

1. Test your functions **before** using them (i.e. verify the function works as expected before calling it elsewhere in the code)

Testing Steps

1. Test your functions **before** using them (i.e. verify the function works as expected before calling it elsewhere in the code)

2. By the time your functions are all implemented most of your testing should be complete and the program is likely mostly correct

Testing Steps

1. Test your functions **before** using them (i.e. verify the function works as expected before calling it elsewhere in the code)

2. By the time your functions are all implemented most of your testing should be complete and the program is likely mostly correct

3. Finally test the program as a whole by supplying a variety of **valid inputs** to ensure the program behaves as expected and **invalid inputs** to ensure the program handles them without breaking

Your Task

csca48.alyoshin.dev

Your Task

1. Read the description and establish what the program sets out to do

Your Task

1. Read the description and establish what the program sets out to do
2. Decide on the order in which the functions should be tested (don't start making tests yet)

Your Task

1. Read the description and establish what the program sets out to do
2. Decide on the order in which the functions should be tested (don't start making tests yet)
3. Write down the following:
    - list of tests for each function
    - expected results for each test
    - how the result will be verified

Reminders

- Each student to submit their own file (picture or scan of your work) which can be the same as that submitted by members of their group.
- Ensure your file is named **exactly** as instructed on Quercus.
- You are **not** supposed to keep working on this, you will not be marked on correctness so as long as you submit work that shows you were engaged during this tutorial you will get full marks.