

Debugging

Matteo Caldana

10/05/2023

Examples 1 - Debugging

This examples are inspired by <https://github.com/cme212/course> and show basic techniques for debugging as well as an introduction to gdb.
See also Defensive Programming and Debugging.

Some useful readings about *undefined behaviour* in C++:

- ▶ <https://mohitmv.github.io/blog/Cpp-Undefined-Behaviour-101/>
- ▶ <https://mohitmv.github.io/blog/Shocking-Undefined-Behaviour-In-Action/>

Exercise 2 - Debugging (advanced)

The program `integer-list` in the directory `02-bug` has:

- ▶ a compile error;
- ▶ a run-time error;
- ▶ a memory leak;
- ▶ a possible memory leak that is not captured by the `main`.

Find all the issues and fix them.

Get help by using `gdb` and `valgrind`.

The directory `02-bug-solution` contains the fixed code, please don't look at it before trying to solve the exercise by yourself!