Software Dev Challenge Problems

Please read through and complete the following challenges. You are free to use any tools/languages unless specifically instructed otherwise. Please create a 30-45 minute presentation to highlight your solutions. Please be sure to go into detail on your approach, any issues you encountered and any assumptions you made. Also include the process you took to validate that your solution was correct.

* Cuboid

The attached source file is supposed to print out a cuboid given the x, y, and z dimensions via command line arguments but it appears there are a lot of bugs preventing the compiled program from working correctly. We have a version of the binary working correctly attached as well but we want to eventually make extensions to the source. Can you fix the source and get the program working as intended?

To be clear, the compiled cuboid program is working as intended, we would like you to fix the cuboid.c source code to have identical behavior.

Requirements:

\* Program should take 3 numbers (such that 0 < dimension <= 10) from the command line as program arguments. If the user passes invalid input, the program should exit and print out nothing

\* No trailing whitespace after characters that make up the cuboid

\* Cuboid must be displayed using the same orientation/viewpoint

* CVRF Viewer

The Common Vulnerability Reporting Framework is a specification for representing security advisories on software products. Using the given allitems-cvrf-year-2022.xml file, please develop a Vue 3 web application to search and display vulnerabilities. The application must be able to filter based on string matches in the description, but you are free to include other filtering options as well. The application must display the title, description, published, modified information as well as the URL and description of any references. Do not include any \*\* RESERVED \*\* records in your output. A backend and/or database is not required but feel free to use one if you would like. Please be prepared to demo the application when presenting.