CSCI910 – Software Requirements, Specifications and Formal Methods

Tutorial 6, CCNU Summer 2020

Objectives

- Get familiar with Z notation
- Get familiar with the z-editor: https://z-editor.github.io/
- All exercise must be completed using the z-editor

Exercise 1:

Extend the schema for the simple editor by adding a total version of backward operation.

User can move the cursor backward without changing the existing characters in the document.

Exercise 2:

Extend the specification of the Storage Tank, which was introduced in the lecture by adding a full drain operation.

Drain is an operation performed on a Storage Tank. Successful operation decreases the contents level by an input amount, but not below the empty level, that is contents=0, of the Storage Tank. Additionally, a successful operation should not decrease the contents to, or below the danger level.

Please write the operation by schema/schemas and complete the whole specification for the Storage Tank.