
SOFTWARE REQUIREMENTS SPECIFICATION

for

**An interactive tool for
demonstrating CRDTs**

Release 1.0

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2.1 Functional Requirements

- The number of replicas should be a variable specified in the markdown document.
- The visualizer should be embedded after each data type.
- An initial example for each data type should be specified in the markdown document.
- The user can add an operation of the data type by clicking on a point on the replica.
- Only data type related operation will be displayed.
- The user can remove an operation by right clicking on the operation point and selecting remove.
- The user can update the operation between replicas by dragging and dropping to the designated replica.
- The current state of the replica would be always displayed.
- The state of the replica should be updated according to the execution plan.
- A check box at the bottom would allow the user to display the downstream messages.
- An initial prototype of the visualizer is demonstrated on: <https://wireframe.cc/jSzo2j>

2.2 Non-Functional Requirements

- The project will be implemented with Typescript.
- The design should be extendable.
- Priorities of implementation:
 1. Number Type
 2. Sets
 3. Flags

4. LWW-Register
5. MV-Register
6. Maps