

# Real-time Collaborative Text Editor with CRDTs - Applied

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# Chapter 1

## Background

- Sequential Data types - Concurrent Data Types - Wait-Free Lock-Free Data Types - Conflict-Free Replicated Data Types
- The Consistency Availability Partition tolerance theorem
- Optimistic Replication
- State Based vs Operation Based CRDT implementations
- Commutative vs Non-Commutative operations
- Standard Execution Model of Operation-based CRDTs
- Last Writer Wins
- Causal Order
- Unique Set

# **Chapter 2**

## **Strat**

### **2.1 Research Topics**

#### **2.1.1 Delta CRDTs**

##### **2.1.1.1 Research Problem**

##### **2.1.1.2 Literature Review**

##### **2.1.1.2.1 Current State of the field**

##### **2.1.1.2.2 Gaps / Problems in the field**