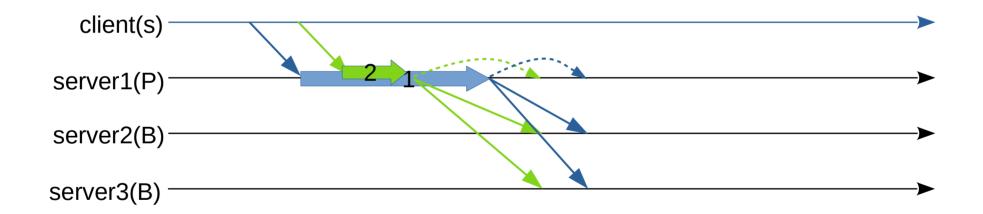
## **Concurrent execution**

- How to update backups?
  - Dirty reads and deadlocks



Fault Tolerance

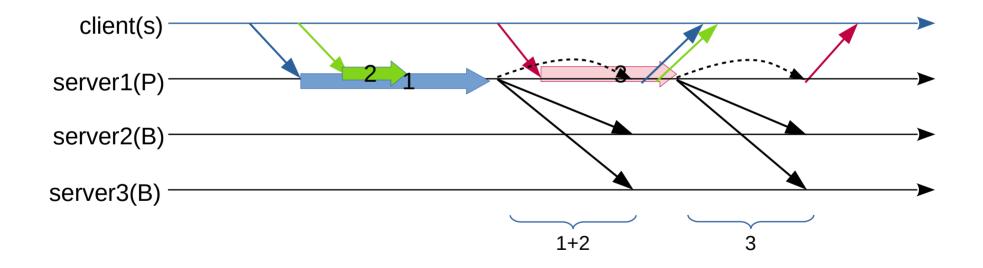
## **Concurrent execution**

- How to perform state transfer with concurrently executing requests?
- Ensure FIFO order of updates:
  - Use setFifo() instead of setReliable() for explicit acknowledgments
  - With implicit acknowledgments, setSafe() already implies
    FIFO order
- Need only to keep counters of updates sent and confirmed

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## **Concurrent execution**

 If changes by each individual operation cannot be clearly separated, can batch updates:



Fault Tolerance

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