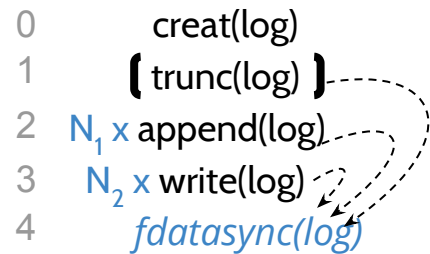
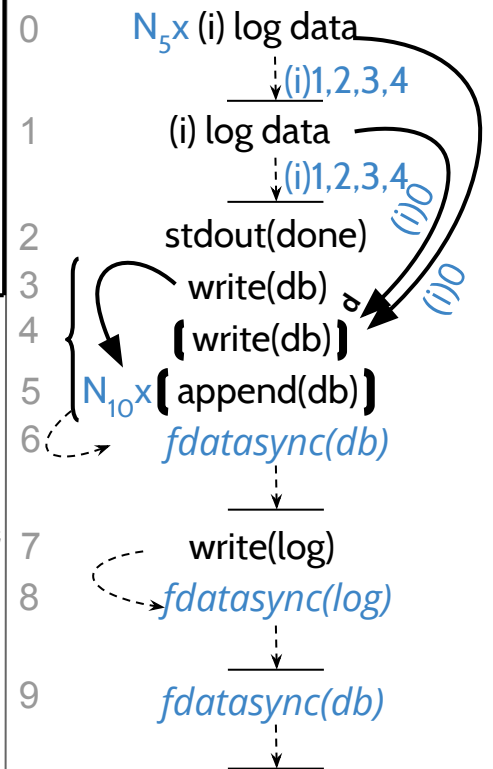


# Legend

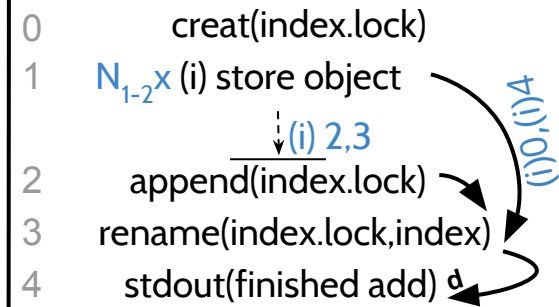
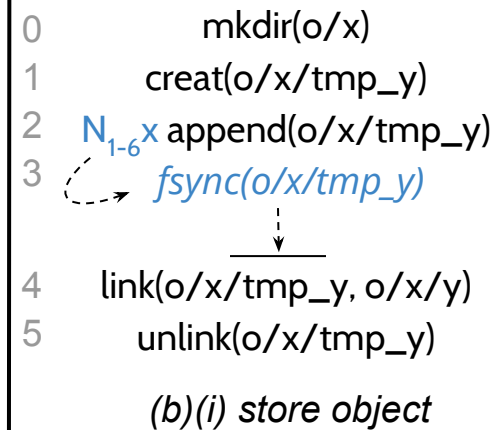
- ordering vulnerability
- existing sync operation
- ( ) atomicity vulnerability
- <sup>d</sup> durability vulnerability



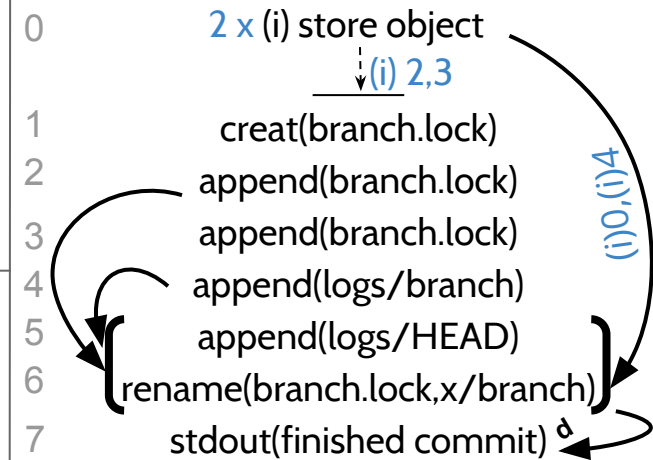
(a)(i) BDB log data



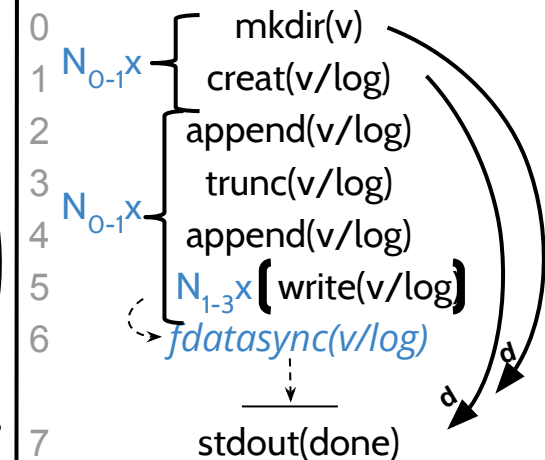
(a)(ii) BDB Insert and commit



(b)(ii) git add



(b)(iii) git commit



(c) ZooKeeper - log operation