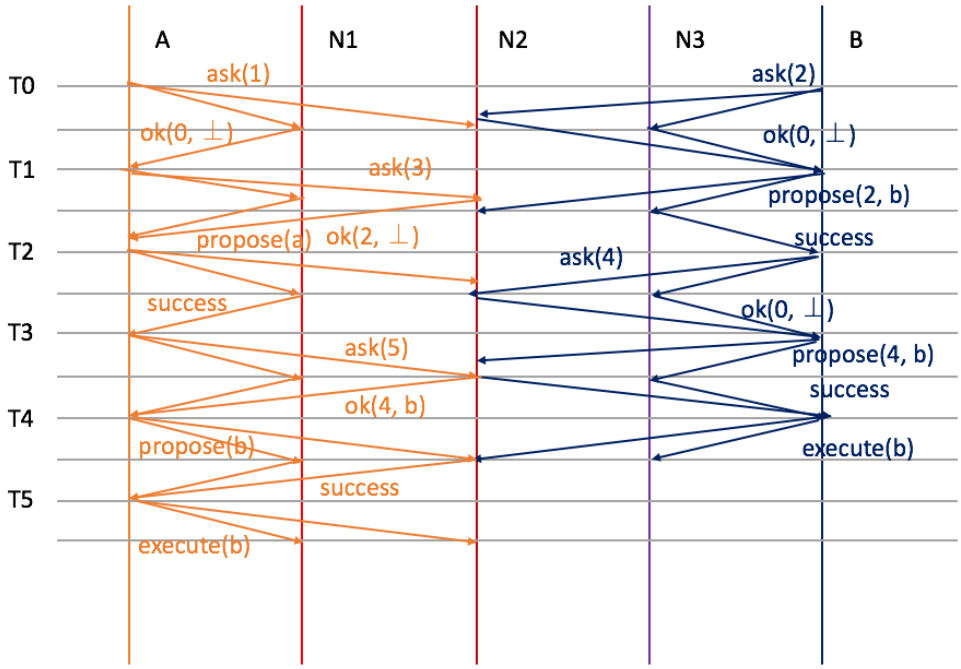
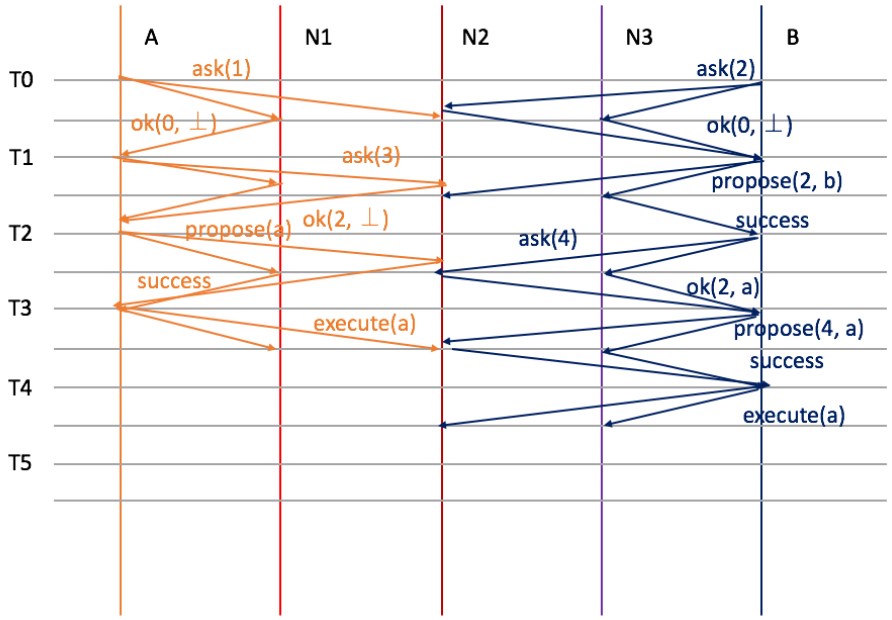
Amray Schwabe (15-920-648), Bonus Part 2

Paxos

Below you see an execution of the Paxos protocol with three servers (N1, N2, N3) and two clients A and B. After each phase of the protocol, nodes wait one time unit for an answer. Messages never take longer than 0.5 time units until they arrive and nodes don't take any time to process. One of the three servers doesn't exactly behave as it is supposed to. Your task is to:
a) Identify the byzantine server.
b) Correct the protocol such that the execution is correct.



Solution

a) The byzantine server is N3. It should have answered with success at T2 + 0.4, but it didn't.
b) The right execution of the protocol would be:

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