

Basic Paxos

Proposer

Prepare(N)

If # of received Promises $> K/2$,
index = $\text{argmax}(\text{acceptedProposals})$,
 $N = \text{acceptedProposals}(\text{index})$,
 $V = \text{acceptedValues}(\text{index})$,
return **Propose(N, V)**.
else,
return Prepare(N').

If # of Accept(N, V) $> K/2$,
broadcast the result to learners.
else,
return Prepare(N'').

Acceptor
(minProposal, acceptedProposal, acceptedValue)

If $N > \text{minProposal}$,
return **Promise(acceptedProposal, acceptedValue)**.

If $N \geq \text{minProposal}$,
 $\text{acceptedProposal} = \text{minProposal} = N$,
 $\text{acceptedValue} = V$,
return **Accept(N, V)**.

