CSE 552
Global snapshots

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Consistent vs. inconsistent

(a) Consistent state

(b) Inconsistent state
Lattice of execution states
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Reachability
Stability

Deadlock is a stable property

- deadlock now means deadlock in future

If a run R of the snapshot protocol starts in $\Sigma_i$ and terminates in $\Sigma_f$, then

- $\Sigma_i$ leads to $\Sigma_s$ leads to $\Sigma_f$
- deadlock in $\Sigma_s$ means deadlock in $\Sigma_f$
- no deadlock in $\Sigma_s$ means no deadlock in $\Sigma_i$