

So, to get the previous state,

P_i is moved upto the point $(C_{i,1})$.

Here, after the recovery process, process (P_i) will send again the message (H) . Thus

Causing a duplicated message.

\Rightarrow So, to avoid this, process (P_j) is rollback till checkpoint $(C_{j,1})$

Now, consider the P_j & P_k , since the latest checkpoint for the process (P_j) is $(C_{j,1})$, it will send the message (I) to Process (P_k) . P_k has also a duplicate message will occur.

Thus, now we have to

roll back to the checkpoint $(C_{k,1})$ for the process (P_k)