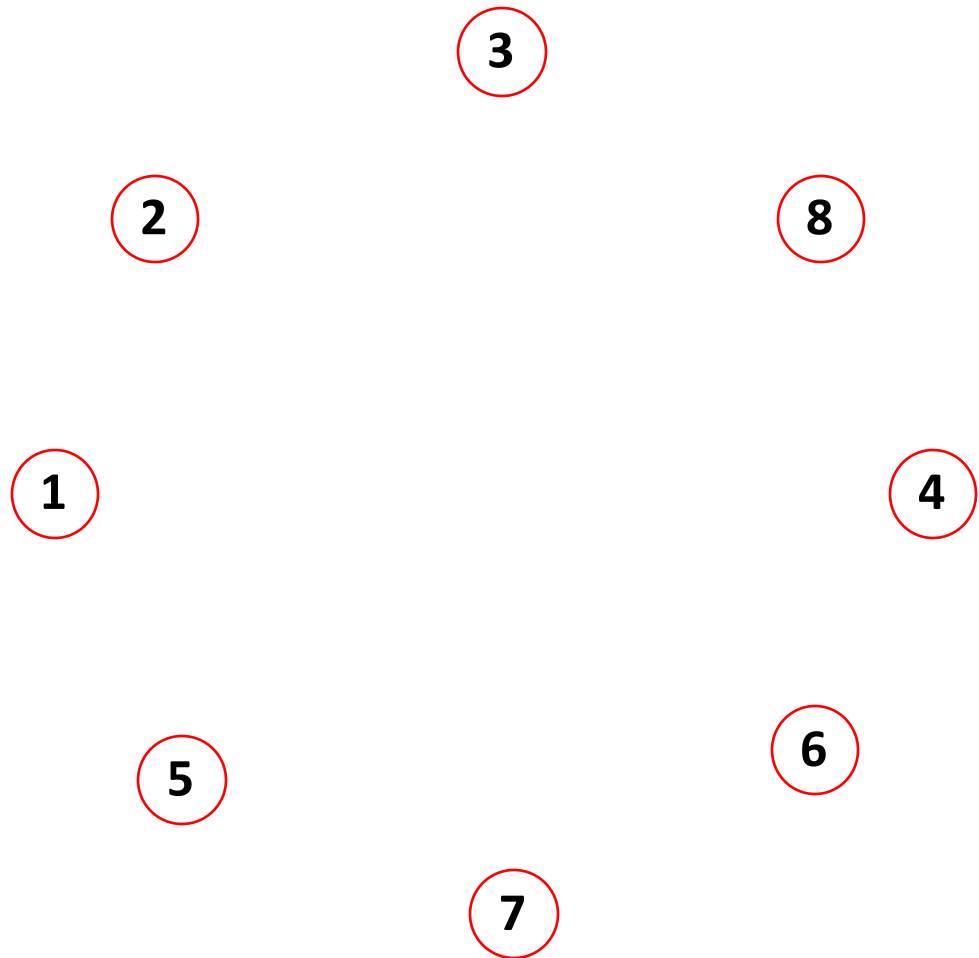


Lab2 – Leader Election

Motivation

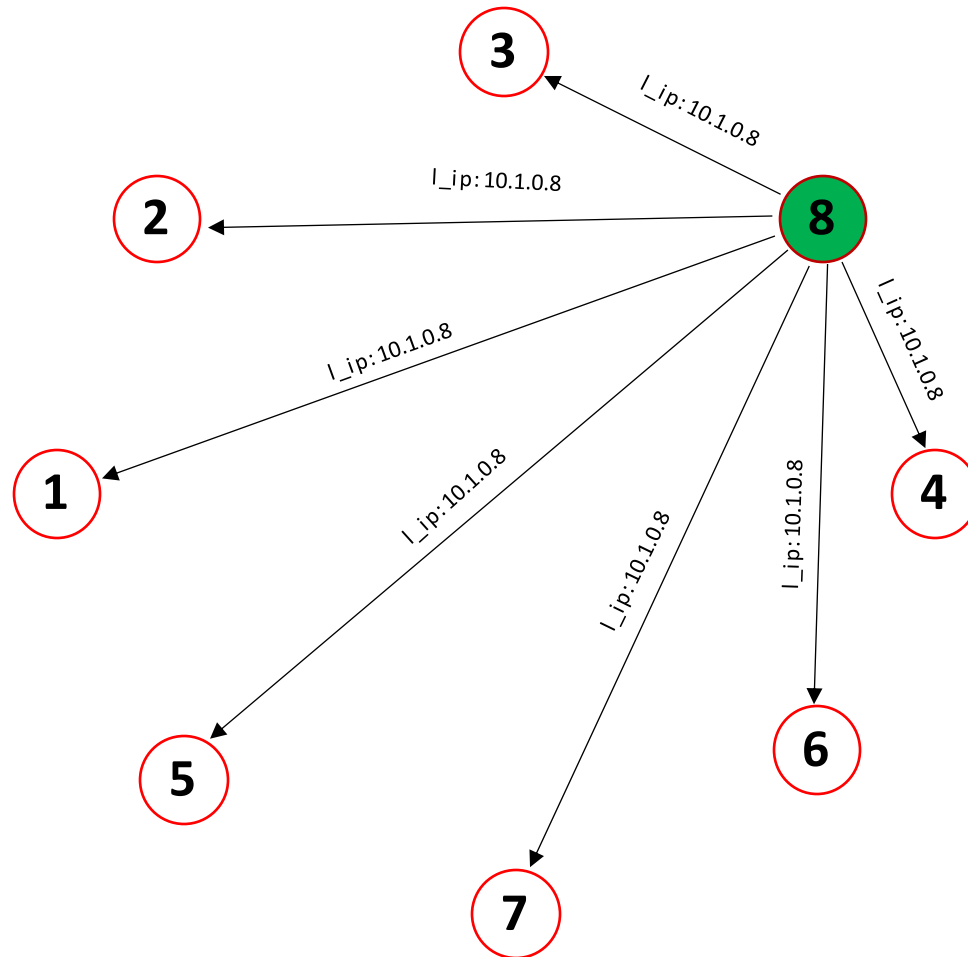
- 'Bully Algorithm' with some modification
- Always targeted last server (i.e., server 8) as coordinator.
- Centralized solution
- Leader always handle "add on board" requests
 - Generate new ID with current time stamp
 - Propagate to other servers
- Other servers just forward "add on board" requests to Leader

Design – Leader Election



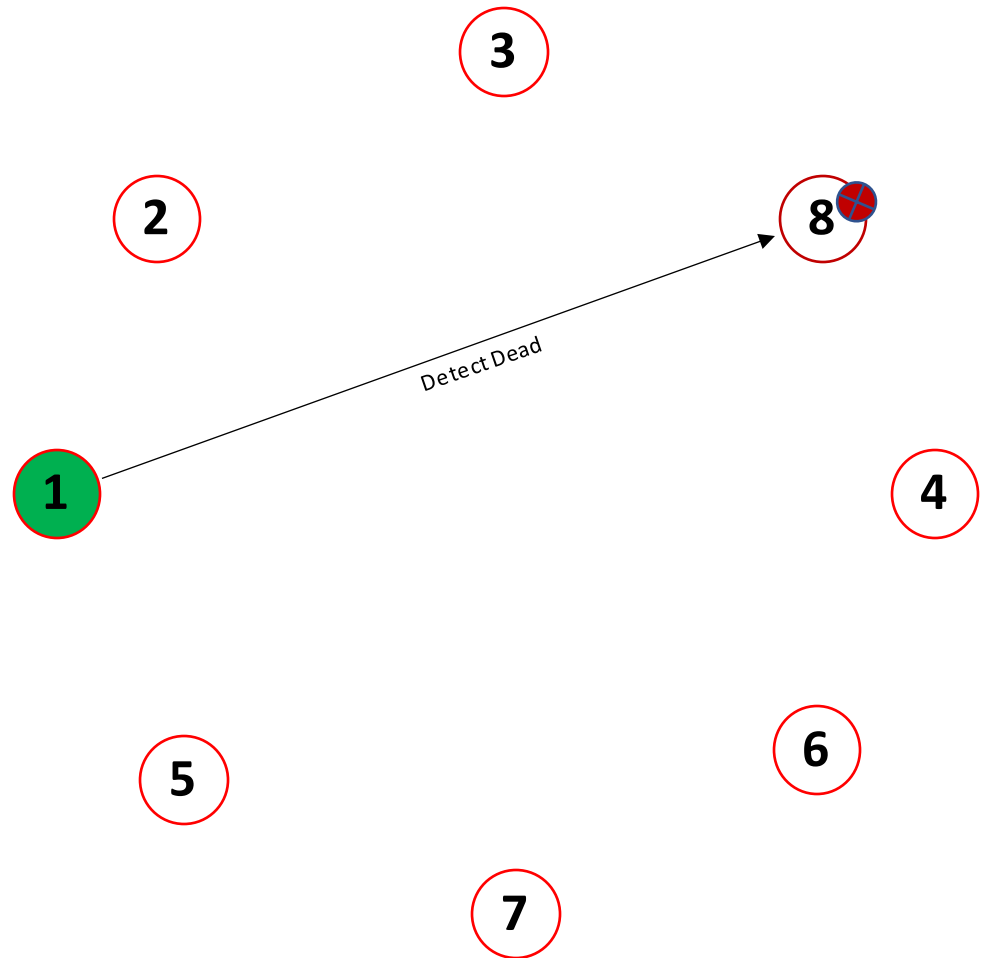
- No Leader

Design - LE (Servers Started)



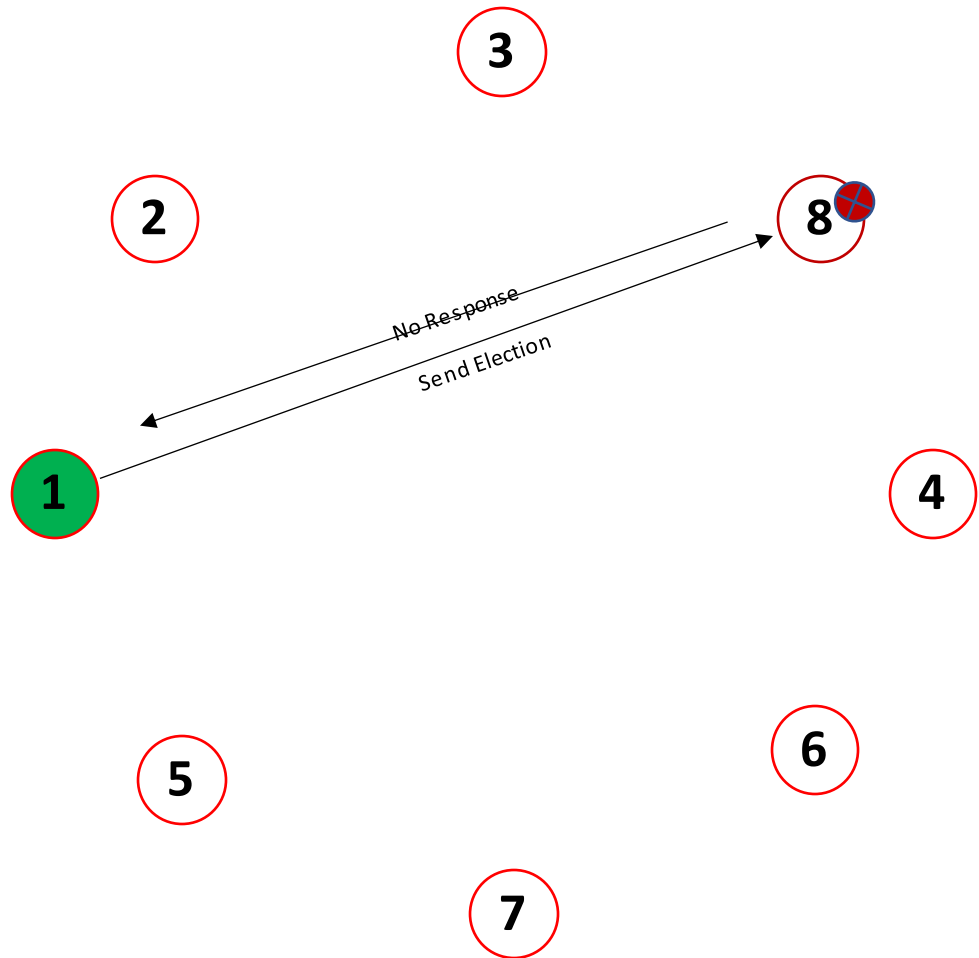
- Servers Started
- Last host (l.e. 8) starts the election
- Check in the host list for highest server_id
- So server 8, Declare itself as "Coordinator"
- And notify other hosts with Leader IP

Design - LE (Server 8 Dead)



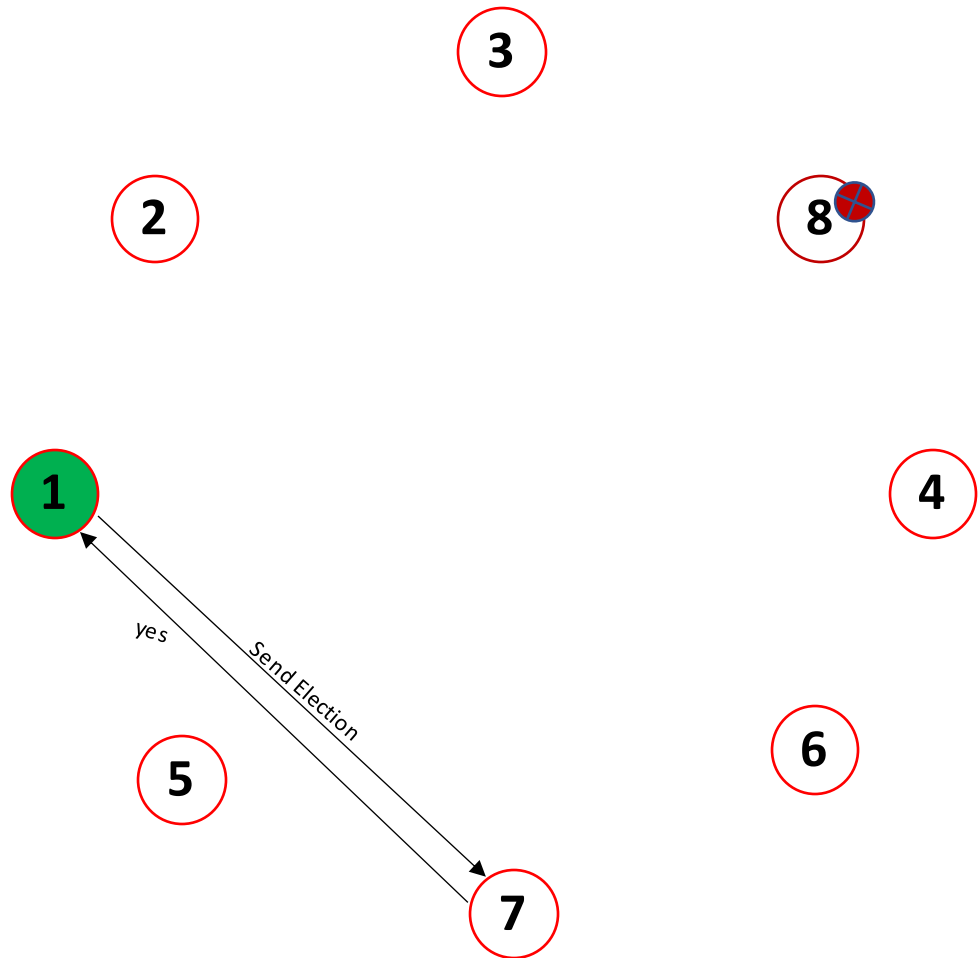
- Server 1 , Detect 8 is dead
- Server 1 , Start Election

Design - LE (Server 8 Dead)



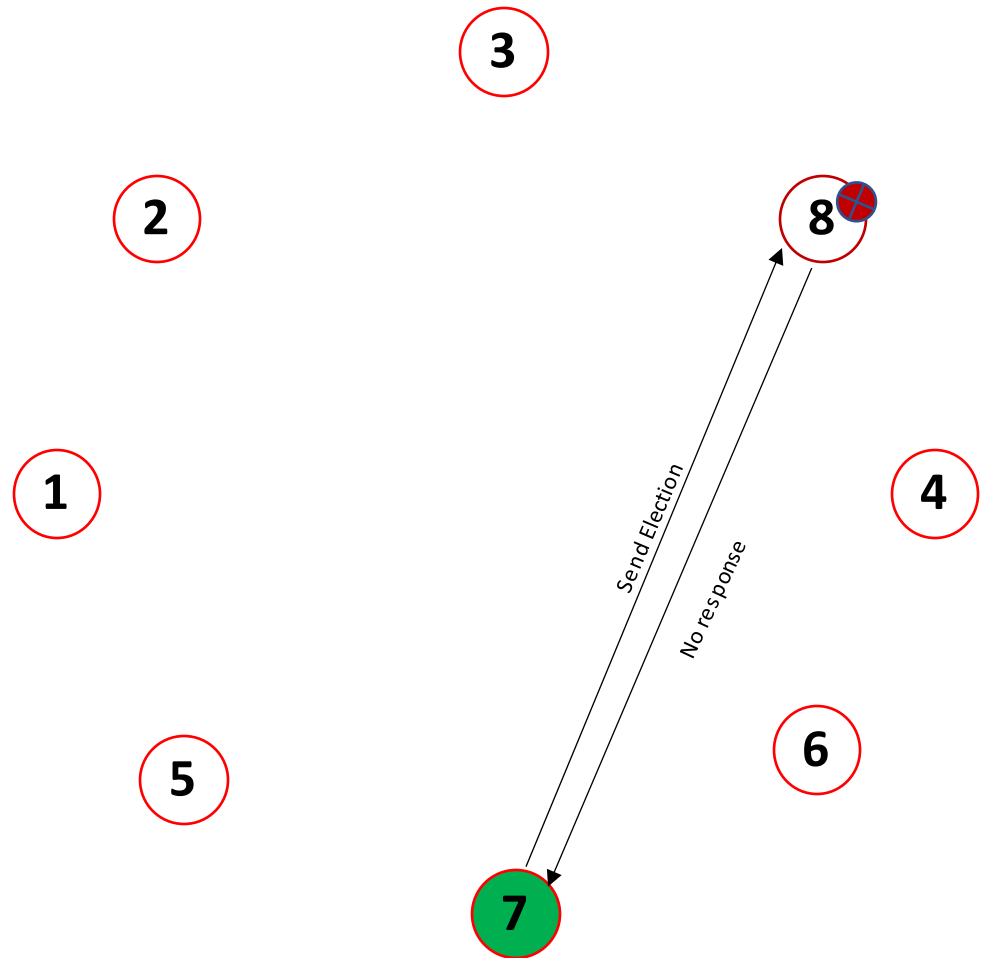
- Server 1 , Send election to 8
- Server 8, no response

Design - LE (Server 8 Dead)



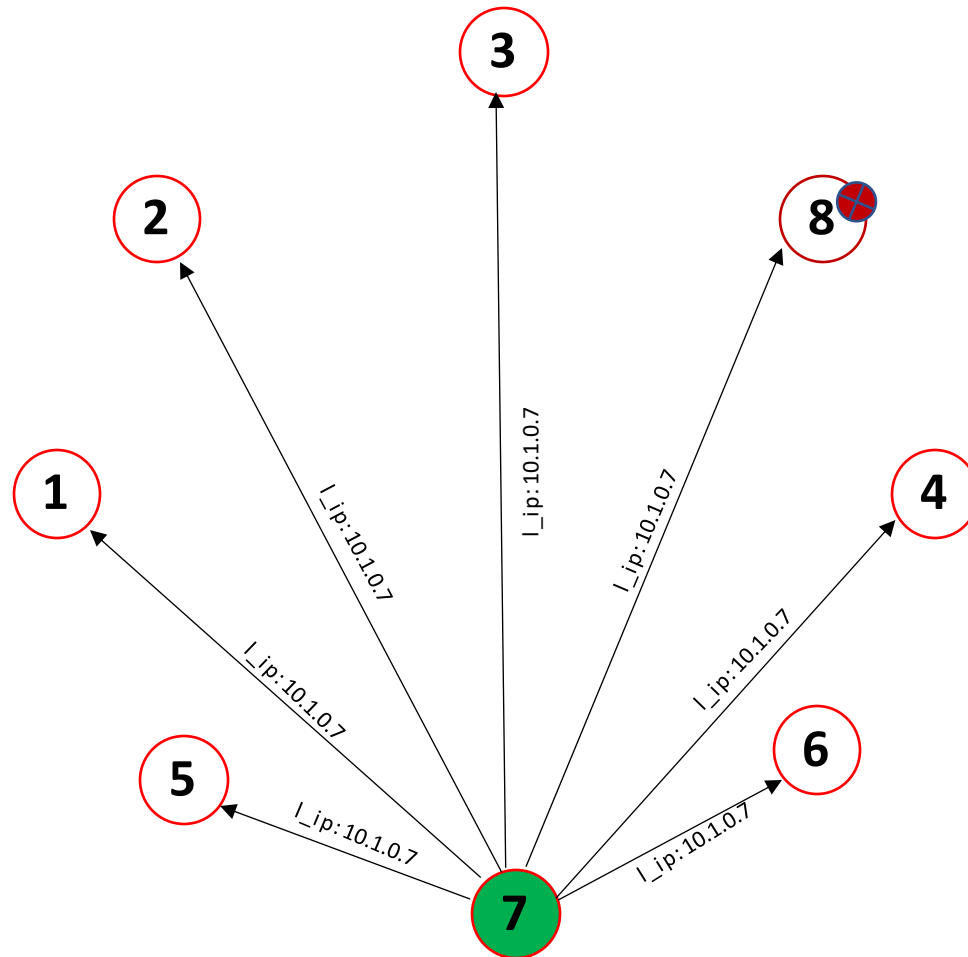
- Server 1 , Send Select to 7
- Server 7 response with "yes"

Design - LE (Server 8 Dead)



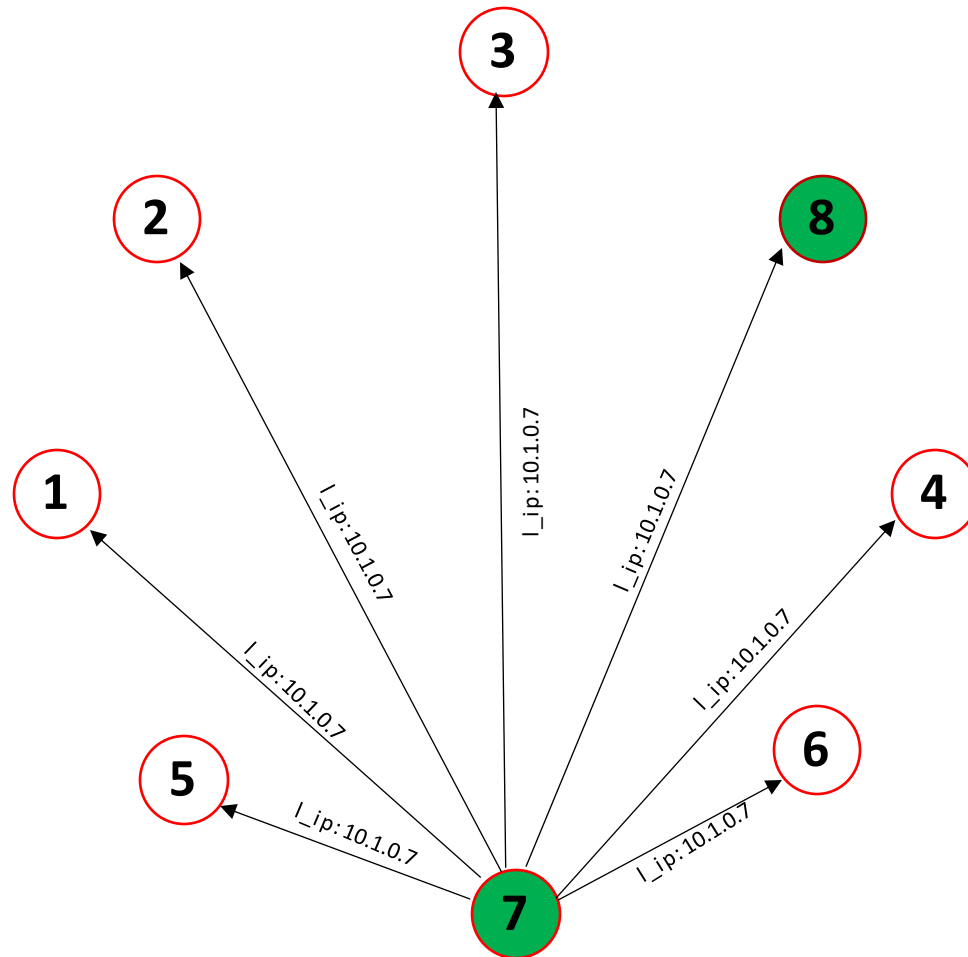
- Server 7 , Start Election
- Send Election to 8
- Server 8 does not respond

Design - LE (Server 8 Dead)



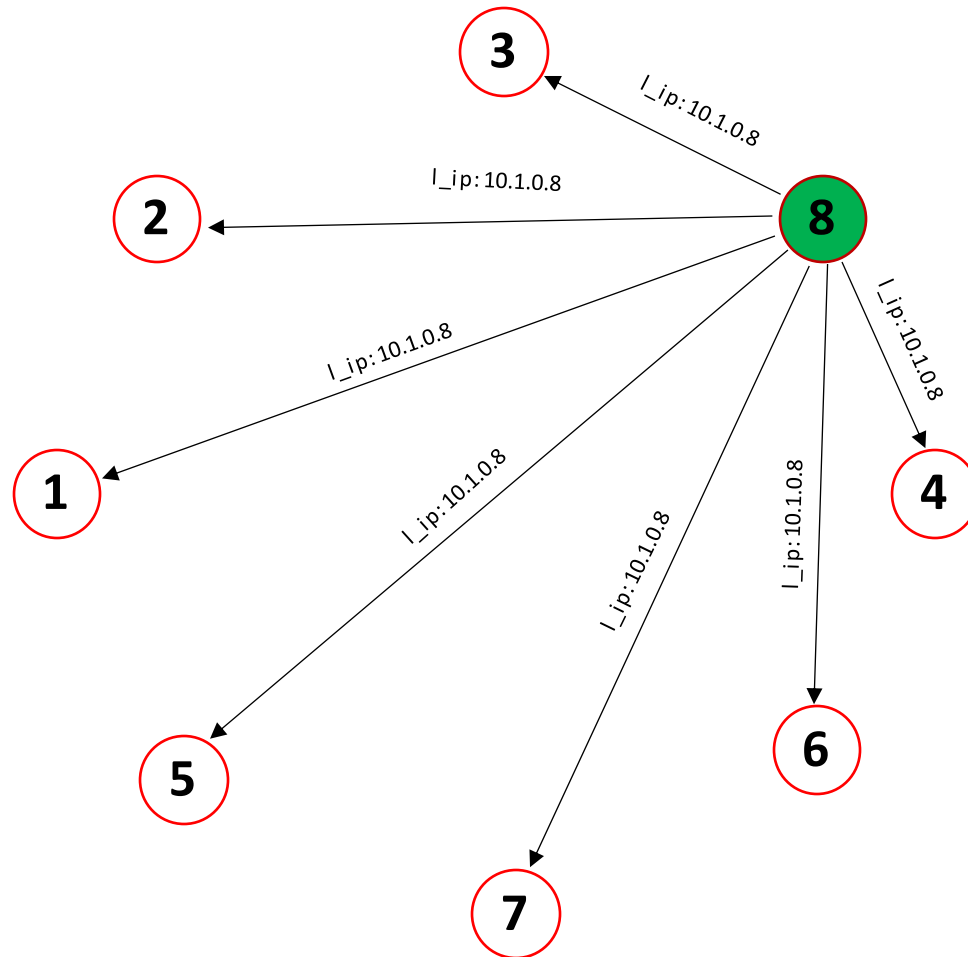
- Server 7 , declare itself as "Coordinator"
- Notify others with its IP

Design - LE (Server 8 Rebooted)



- Server 8 Rebooted,
- Start the election after 3 secs
- Check it's ID and declare itself as "Coordinator"
- Notify other servers with its IP

Design - LE (Servers 8 Rebooted)



- Server 7 got new Leader IP
- Reset its leader_ip and stop data processing thread