

TEST REPORT

Test Cases

1) **Default Test Case -**

- a) Name - testcases/config1.py
- b) Ledger files - ./ledger_map0.txt, ./ledger_map1.txt, ./ledger_map2.txt, ./ledger_map3.txt
- c) Log files - logFile.log
- d) Number of replicas - 4
- e) Number of clients - 4
- f) Number of client requests - 2
- g) Failure scenario - Unable to reach a consensus of vote messages. Unable to reach votes as a result of message delay, message loss, or false setAttribute.
- h) Faulty Nodes - 1

Outcome

- Ledger is each populated with 8 entries each referring to the 4*2 messages being sent.
- Vote messages and consensus is arrived at after 36 rounds.

2) **Test Case with higher replicas and failure nodes -**

- a) Name - testcases/config1.py
- b) Ledger files - ./ledger_map0.txt, ./ledger_map1.txt, ./ledger_map2.txt, ./ledger_map3.txt, ./ledger_map4.txt, ./ledger_map5.txt, ./ledger_map6.txt
- c) Log files - logFile.log
- d) Number of replicas - 7
- e) Number of clients - 7
- f) Number of client requests - 2
- g) Failure scenario - Unable to reach a consensus of vote messages. Unable to reach votes as a result of message delay, message loss, or false setAttribute.
- h) Faulty Nodes - 2

Outcome

- Ledger is each populated with 14 entries each referring to the 7*2 messages being sent.
- Vote messages and consensus is achieved.

3) Test Case with higher transaction messages and higher replicas -

- Name - testcases/config1.py
- Ledger files - ./ledger_map0.txt, ./ledger_map1.txt, ./ledger_map2.txt, ./ledger_map3.txt, ./ledger_map4.txt, ./ledger_map5.txt, ./ledger_map6.txt
- Log files - logFile.log
- Number of replicas - 7
- Number of clients - 7
- Number of client requests - 10
- Failure scenario - Unable to reach a consensus of vote messages.
Unable to reach votes as a result of message delay, message loss, or false setAttribute.
- Faulty Nodes - 1

Outcome

- Ledger is each populated with 70 entries each referring to the 7*10 messages being sent.
- Vote messages and consensus is achieved.

4) Test Case with lower transaction messages and higher replicas -

- Name - testcases/config1.py
- Ledger files - ./ledger_map0.txt, ./ledger_map1.txt, ./ledger_map2.txt, ./ledger_map3.txt, ./ledger_map4.txt, ./ledger_map5.txt, ./ledger_map6.txt,/ledger_map13.txt
- Log files - logFile.log
- Number of replicas - 14
- Number of clients - 14
- Number of client requests - 2
- Failure scenario - Unable to reach a consensus of vote messages.
Unable to reach votes as a result of message delay, message loss, or false setAttribute.
- Faulty Nodes - 2

Outcome

- Ledger is each populated with 28 entries each referring to the 14*2 messages being sent.
- Vote messages and consensus is achieved.