**TEST REPORT**

# **Test Cases**

1. **Default Test Case** -
   1. Name - testcases/config1.py
   2. Ledger files - ./ledger\_map0.txt, ./ledger\_map1.txt, ./ledger\_map2.txt, ./ledger\_map3.txt
   3. Log files - logFile.log
   4. Number of replicas - 4
   5. Number of clients - 4
   6. Number of client requests - 2
   7. 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.
   8. 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.

1. **Test Case with higher replicas and failure nodes** -
   1. Name - testcases/config1.py
   2. Ledger files - ./ledger\_map0.txt, ./ledger\_map1.txt, ./ledger\_map2.txt, ./ledger\_map3.txt, ./ledger\_map4.txt, ./ledger\_map5.txt, ./ledger\_map6.txt
   3. Log files - logFile.log
   4. Number of replicas - 7
   5. Number of clients - 7
   6. Number of client requests - 2
   7. 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.
   8. 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.

1. **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.

1. **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 - 1
   * 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 14 entries each referring to the 14\*1 messages being sent.
* Vote messages and consensus is achieved.