**User Manual :**

Install Nacl for signature verification and hashing: <https://pypi.org/project/PyNaCl/>

Install Cacheout for maintain for Ledger and Mempool: <https://pypi.org/project/cacheout/>

**Commad to run the system at path dist\_project/src/ :**

**python -m da --message-buffer-size xx main.da x**

where x is test case number and xx is message buffer size

ex : python -m da --message-buffer-size 100000 main.da 1 runs test case 1 with message buffer size of 100000 bytes

Configurations for test cases are included as text files at path dist\_project/config/\*

Logs and Ledgers are generated in folders of paths dist\_project/logs/\*, dist\_project/ledgers/\* respectively.

Log and ledger files are of format replica\_1.log and replica\_1\_ledger.txt respectively.

Text

Description automatically generated

Test case 1 config file :

test\_case1.txt:

n\_clients = 3 {number of clients, int}

n\_replicas = 5 {number of replicas, int}

n\_faluty\_replicas = 0 {number of faulty replicas, int}

n\_client\_txns = 5 {number of client transactions to generate, int}

random\_seed = 100 {random seed used in faulty replica, replica, client, int} faulty replica uses seed in failure config; replica uses seed for generating signatures, leader election; client uses seed to generate random transactions.

client\_timeout = 5 {timeout for client to terminate if did not get f+1 responses of transactions from replica, float}

network\_delta = 0.25 {network delta used in get round timer formula : 4\*network\_delta, float}

replica\_leader\_window\_size = 10 {window size used in leader election, int}

replica\_leader\_exclude\_size = 3 {exclude size used in leader election, int}

client\_txn\_delay = 0 {transaction delay between each transaction client sends to replicas, float}

description = Zero faulty replicas and no transaction delays {description of test case, string