**CSE335 Assignment1: DIEM BFT USER MANUAL**

**RUN THE DISTRIBUTED SYSTEM**

* The file ***“main.da”***contains code for the main module for clients & replicas. Also includes initialization of the config file.
* It also provides the connection to other modules and code for the organisation of transactions in mempool.

We can run the distributed system by executing the ***“main.da”*** file in localhost using the following command.

**python -m da -H localhost main.da**

We can also set the message buffer to handle message too big excpetions:

**python -m da --message-buffer-size 100000 -H localhost main.da**

**CONFIGURATION FILE**

configurations =  {

  "window\_size": 1,

  "exclude\_size": 1,

  "seed": "consistency",

  "f": 1,

  "timeout" : 1,

  "nReplicas":4,

  "nClients": 4,

  "default\_testcase": "test\_case\_config1.json"

}

Different parameters that are needed for the system is configured in the separate config.da file and it is imported in the main.da

For Leader election , ***window\_size*** determines how many previous committed blocks we traverse to get active validators and ***exclude\_size*** determines how many recent leaders we exclude to get elected as next leader.

***Seed*** is to generate same leader for a round in all validators for consistency.

***f*** represents the number of faulty nodes

***nReplicas*** and ***nClients*** are the number of replicas and clients respectively

***delta*** represents the network delay and is used for timer.

***default\_testcase***  is used when during testing which assigns the testconfig file required for that particular test case.