

## 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 exceptions:

```
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.