Python Server

Implementation language : Python

Framework : Flask

Major Files : serve.py, quorum.json, dataTable.json, ping.jar, mine.json

The quorum allocation server is the server which deals with quorum allocation and pinging services.The serve.py is the server code. dataTable.json contains the list of all the nodes who are candidates to be chosen as quorum(This dataTable.json is a subset of the dataTable.json from the Data server as this dataTable.json only contains the nodes which are candidates to be picked as quorum), the quorum.json maintains the table of credits of each nodes in the network, the ping.jar implements the pinging logic to check available nodes to be chosen as quorum and mine.json contains the details of the tokens that are yet to be mined as we compute the eligible quorum using this data too(This should be in sync with the mine.json from Data server).

serve.py

This code contains the various routes/methods. Some of it’s core functions are:

- Allocate and deallocate quorum on the network
- Invoke the pinging logic
- Maintain the credits of various nodes in the network

quorum.json

This file contains the details of how much credits each node contains

dataTable.json

This list is a subset of the entire nodes in the network(subset of dataTable.json in data server) which are eligible(guaranteed to be on always) to become candidates to perform the role of quorum members in a transaction.

ping.jar

This jar performs the ping operation on the nodes to check if they can be used as used as quorum members.

mine.json

This file contains the tokens that are to be mined next(this file is synced with the mine.json in data server). This is used to computer the number of credits needed for a quorum member to stake in a treansaction.

NOTE: Once we the pinging logic is integrated completely, the separate subset of dataTable.json would not be needed as all nodes can be allowed to become quorum as we can dynamically check if a node is online using ping.