

Assignment5-writeup

Main class relation:

ClientGenerator is used to generate requested number of clients. While generating new Client, we need to use **KeyGenerator** to generate private key and public key for the client. After we generate all the clients, we use **MessagePairGenerator** to generate message pair. Each message pair contains its client so that it can access client's information. Then, we need to use **RsaVerification** to verify each message pair. Finally, if the message pair pass RSA verification, we need to use **TransactionVerification** to judge the transaction status.

Data Structure:

I use ArrayList to store all the clients and all message pairs. The advantage of using ArrayList to collect clients is that I can access each client using index in $O(1)$ time.

I implement AVL Tree but I have no time to finish applying it as data collection for clients.

