1] We have used python 2.7 for branch and controller. For serialization of data we have used Google Protocol Buffer also known as protobuf.

2] To compile and run the code:

```
1) export PATH=/home/vchaska1/protobuf/bin:$PATH
2) export PKG_CONFIG_PATH=/home/vchaska1/protobuf/lib/pkgconfig
```

After that we are ready to compile our .proto file. Run

3) protoc $PROTO_PATH --python_out=. bank.proto

(The 3rd step can be avoided as I have already pushed the bank_pb2.py file)

run 4) python branch.py <branchname> <port no.> < t (ms)> **&**

For as much times as the number of branch nodes are expected.

Run 6) python controller.py <total money> <filename.txt> **&**

Filename.txt should contain all the nodes information in the given format as requirements document suggest.

3] After controller.py is run, each branch takes 6 secs to start the sender thread.

I] Controller takes 10 secs to send the first init_snapshot msg. After that it takes (number of branch nodes*10) secs to retrieve that snapshot from every branch.

II) I have tested the implementation with

Two branches 2ms <t> : some consistent some not

Two branches 5,10,50,100,500,1000ms <t> : consistent

Three branches 5,10,50,100,500,1000, 2000ms <t> : consistent

Four branches 10, 100, 500, 1000, 2000ms <t> : consistent

Five branches 10, 1000, 2000ms <t> : consistent

4] I (Sachin Rodge) have implemented the branch.py and some small amount of controller.py.

I (Savankumar Desai) have implemented the controller.py and contributed a little in branch.py

PS : This implementation is done keeping in mind that there are at least 2 branch nodes running before running controller.py

This document is also provided in pdf format as well.

We have used extended message method, by adding length of messages to it while sending. That didn't solve my problem but it isn't throwing error either. If it does please let us know or use the older version from github.