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User document

Compile

- 1) Open terminal and navigate to the project folder.
- 2) Compile with the following command
- 3) `PA2/gen-java $ make`
- 4) Then we got all the needed class files.
- 5) `PA2/gen-java $ make clean` if you want to clean all the class files.

First Run SuperNode

- 1) `PA2/gen-java $ java -cp ".:usr/local/Thrift/*" SuperNode [Port] [Number of node for the dht]`

Example: `java -cp ".:usr/local/Thrift/*" SuperNode 4000 5`

Second Run Node and join the Super Node

- 1) `PA2/gen-java $ java -cp ".:usr/local/Thrift/*" Node [Node_port] [SuperNode_ip] [SuperNode_port]`

Example: `java -cp ".:usr/local/Thrift/*" Node 4001 localhost 4000`

Example: `java -cp ".:usr/local/Thrift/*" Node 4002 localhost 4000`

Example: `java -cp ".:usr/local/Thrift/*" Node 4003 localhost 4000`

Example: `java -cp ".:usr/local/Thrift/*" Node 4004 localhost 4000`

Example: `java -cp ".:usr/local/Thrift/*" Node 4005 localhost 4000`

Note: SuperNode_port and SuperNode_id should be equal to the IP and port number of the superNode.

Note: If one node haven't finished join, the other node will get the rejection message. Only one node can perform the join at one time.

Finally Run Client

`PA2/gen-java $ java -cp ".:usr/local/Thrift/*" Client [SuperNode_ip] [SuperNode_port]`

Example: `java -cp ".:usr/local/Thrift/*" Client localhost 4000`

Follow the user interface to operate data into the system

- 1) set a single pair
- 2) set by file
- 3) get by title
- 4) exit

```
zhou1298@csel-kh4250-08:/home/zhou1298/Downloads/5105PA2/gen-java $ java -cp ".:  
/usr/local/Thrift/*" Node 8005 localhost 4001  
=====  
This node: bcd376736ae646d6906c1b83f90f6bc5  
=====  
SLF4J: The requested version 1.5.8 by your slf4j binding is not compatible with  
[1.6, 1.7]  
SLF4J: See http://www.slf4j.org/codes.html#version\_mismatch for further details.  
System already reaches the max node  
Node Server is running on port: 8005  
zhou1298@csel-kh4250-08:/home/zhou1298/Downloads/5105PA2/gen-java $ ls
```

Those operations will support tracking if the user types in “yes”

Note: The system supports multiple concurrent clients