User Guide
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I.   Installation & Environment

Thrift 0.9.0
Python 2.7.12
pickledb 0.6

After having those things above installed, just run the script!

II.   Quick Start

for the server run the following command:
python thrift_server.py IP:Portnumber
python server_TCP.py IP:Portnumber
python server_UDP.py IP:PortNumber

The logs are recoreded respectively,
serverLog_RPC.txt, clientLog_RPC.txt
serverLog_TCP.txt, clientLog_TCP.txt
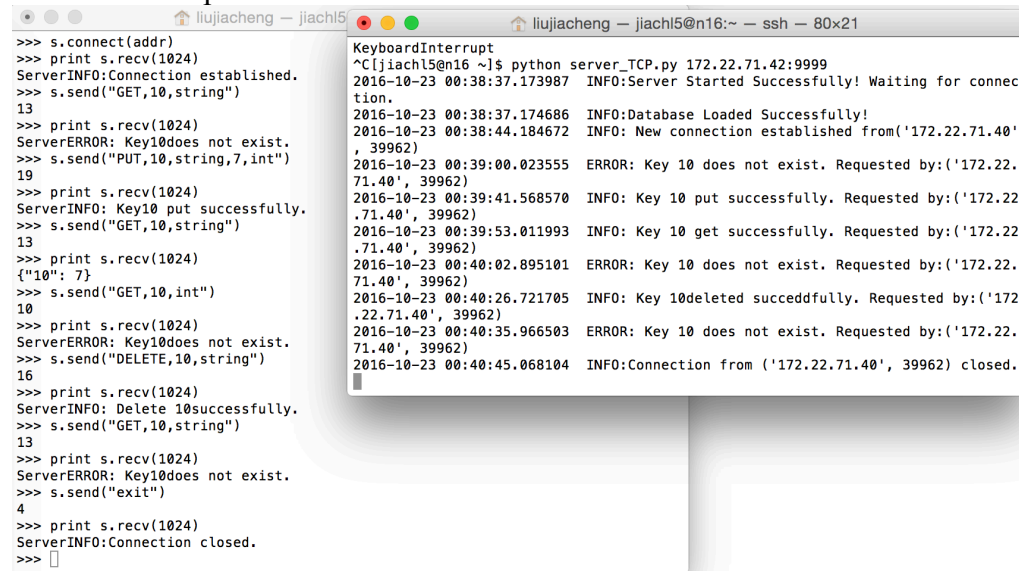serverLog_UDP.txt, clientLog_UDP.txt

for the client, the input file must be a csv file with the format [CMD,param1,param2,…]
python thrift_client.py IP:PortNumber InputFilePath
python client_TCP.py IP:PortNumber InputFilePath
python client_UDP.py IP:PortNumber InputFilePath

Test and Examples:

```
*** the end of the quarter. This includes team accounts.
*** Please backup your projects at the end of the quarter.
[jiachl5@cssgate2 ~]$ ssh jiachl5@172.22.71.42
jiachl5@172.22.71.42's password:
Last login: Sun Oct 23 03:43:14 2016 from 128.208.244.213
[jiachl5@n16 ~]$ python thrift_server.py 172.22.71.42:31001
2016-10-23 04:04:35.630511  INFO:Database Loaded Successfully!
Starting python server...
2016-10-23 04:05:58.599001  INFO: Key 86vfd put successfully. Requested by:172.2
2.71.42
2016-10-23 04:06:08.220300  INFO: Key 86vfd get successfully. Requested by:172.2
2.71.42
2016-10-23 04:06:21.858983  INFO: Key 86vfddeleted succeddfully. Requested by:17
2.22.71.42
```

Notice:
**In our implementation, we have three basic data types for input keys and a exit command to close connection under TCP/UDP mode:

```
CMD_SET=set(['exit','PUT','DELETE','GET'])
TYPE_SET=set(['string','int','float'])
```

**But the type of the returned value of GET operation is always string.
**The TCP server will automatically close those connections which haven't been active for more than 20minutes.

Warning and Errors:

1.ValueOverwrittenWarning:
For those 'Put' operations of which the key already exists.

2. KeyDoesNotExistWaring:
For 'DELETE', when key does not exist.

3. KeyError:
For 'GET', when a key does not exist.

Please refer to the code for more info about errors and warnings.