

Group Project Presentation

Group 3

Fault-tolerant Key-Value server/ client (Redis clone)

OUTLINE

- **Introduction**
- **Method**
- **Demo**
- **Conclusion**

INTRODUCTION

- Key-value server/client storage system.
- It is often referred to as a data structure server, since the keys can contain strings, hashes, lists, sets and sorted sets.
- **redis-cli** : this command will connect to your local server. To check server is working or not, use command **PING**

INTRODUCTION

- **SET** – set key and value

Example:

SET project "Group3"

- **GET** – get key and show value of key

Example:

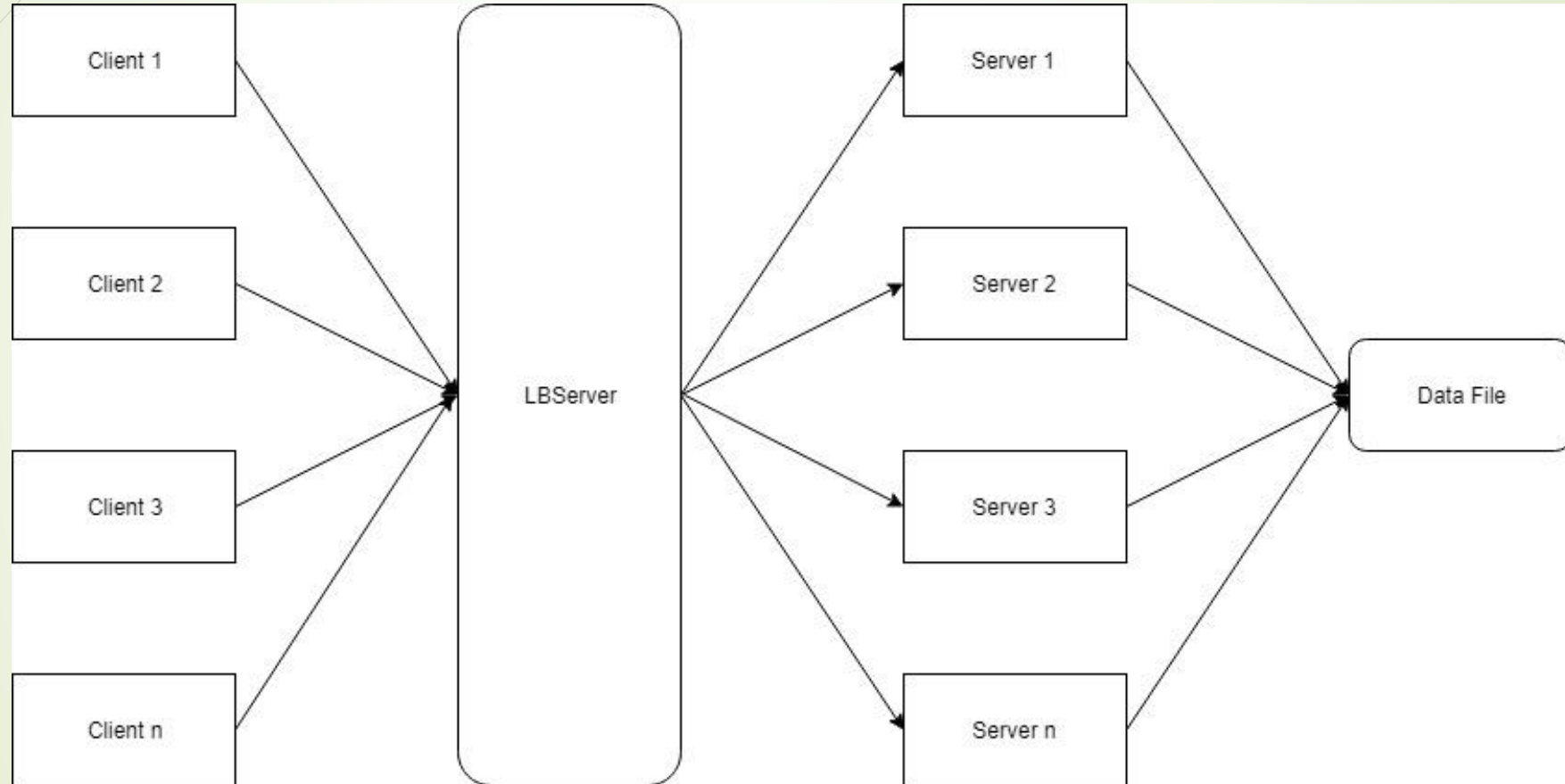
GET project

- **DEL** – delete key with value

Example:

DEL project

METHOD



METHOD

- Data type: we create a `TreeMap<String, String>`.
- Clients: get commands from users and send to LBServer.
- LBServer:
 - Get command from clients and forward to server.
 - Connect client to server by checking number of client connect to the server which has min number of clients.
 - Auto connect client to new a server when current server is terminated.
- Servers: store key-value to data file and return results from the command to client.

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DEMO

CONCLUSION

- What we have done
 - Simple fault-tolerance key-value store server/client.
 - Fault-tolerance with the LBserver.
- What we have not done
 - Datatypes: hashes, lists, sets and sorted sets.
 - Fault-tolerance for the data storing.

CONCLUSION

➤ Future work

- Multiple data types like: hashes, lists, sets,...
- Create a data access that will connect to backup data file when the current one is terminated.

**THANK YOU FOR
ATTENTION!**