Team 3

Xiangwei Wang
Jiahui Geng
Ruiming Huang
Yu Qiao

Technical Overview

CouchDB

- ➢ Document Storage
  NoSQL database
- ➢ ACID Properties
- ➢ Authentication and Session Support
  keep authentication via session cookie

Socket.IO

Socket.IO enables real-time bidirectional event-based communication
- ➢ Real-time analysis
- ➢ Instant messaging and chat
- ➢ Binary streaming
- ➢ Document collaboration

socket.io

Bootstrap

The most popular HTML, CSS, and JS library in the world.
Why Use Bootstrap?
- ➤ Easy to use
- ➤ Responsive features
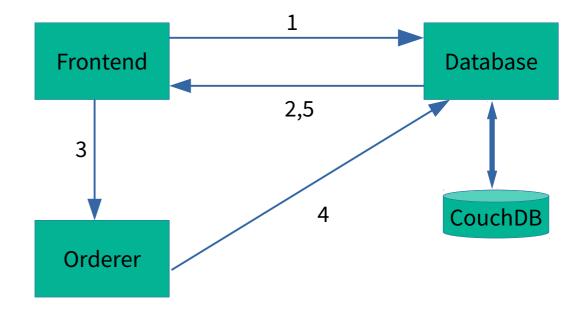- ➤ Mobile-first approach
- ➤ Browser compatibility

Consensus

- **Enlightened by Hyperleger Fabric**

Consensus

1. Frontend raise proposal to Database
2. Database "accept" or "refuse" the propose
3. If the proposal is accepted by Databse, frontend forward the response of Database to Orderer
4. Orderer takes care of consenus. Orderer will push the "Order" either when a certain num of proposal comes or it comes to a certain time.
5. Orderer send order to Database, Database computes the final "update set", modifies the CouchDB and at the same time send the Set to Frontend

Flexibility

- The "Orderer" can be replaced by any framework ideals with massage and streaming.

- e.g. Apache Kafa

Scalability

- By using framework, we can make "Orderer" into a cluster.

- With a some change at "Frontend", the "Database" can also be a cluster.

TODO

- "Guarded ticket"

- Acctually a mini blockchain network.

- Use Apache Kafka