**Concurrency Stock Application**

**Functional requirements**

* **A user can log in/out on the app.**
* **A user can create an account for the app.**
* **A user can place a request to sell/buy stocks at a certain price.**
* **A user can see the current price of the stock they’re looking for.**
* **A company can set the price/quantity of stocks available.**
* **A company can create an account.**
* **A company can also log in/out on the app.**
* **A company can’t buy stocks.**
* **A company can modify the price for the stocks at any given time.**
* **A company cannot refuse a request for buying/selling back stocks.**

**Non-functional requirements**

1. **Our service needs to be available 24/7.**
2. **It needs to be able to process requests as fast as possible because these influences the prices and difference in prices between price at request time and price at processing/buy time should be as small as possible.**
3. **Prices should be updated fast as stocks are bought or sold.**
4. **Out of stock or unavailability are possible problems unless a large capacity of stocks are considered (minimum amount set for companies).**

**High-level component design**

