Test Assignment - Simple Casino

Overview

Design and implement **Simple Casino** consisting of two microservices

- `Game` service
- `Wallet` service

Each service should expose API accessible for consumers.

System should allow to create player's wallet, deposit funds and make bets.

Functional requirements

- In - API call input parameters
- Out - API call output parameters
- OK - indicates successful API call response
- KO - indicates failed API call response

Wallet service API

Register

- In
    - playerId
- Out
    - OK, Balance(0)
    - KO - player already registered

Deposit

- In
    - playerId
    - amount
- Out
    - OK, Balance(..)
    - KO, Balance(..) - playerId not found

Withdraw

- In
    - playerId
    - amount
- Out
    - OK, Balance(..)
    - KO, Balance(..) - playerId not found or insufficient funds

Balance

- In
    - playerId
- Out
    - OK, Balance(..)
    - KO - player not found

Game service API

PlaceBet

- In
    - playerId
    - gameId
    - amount
- Out
    - OK, Balance(..)
    - KO - incorrect game or wallet error

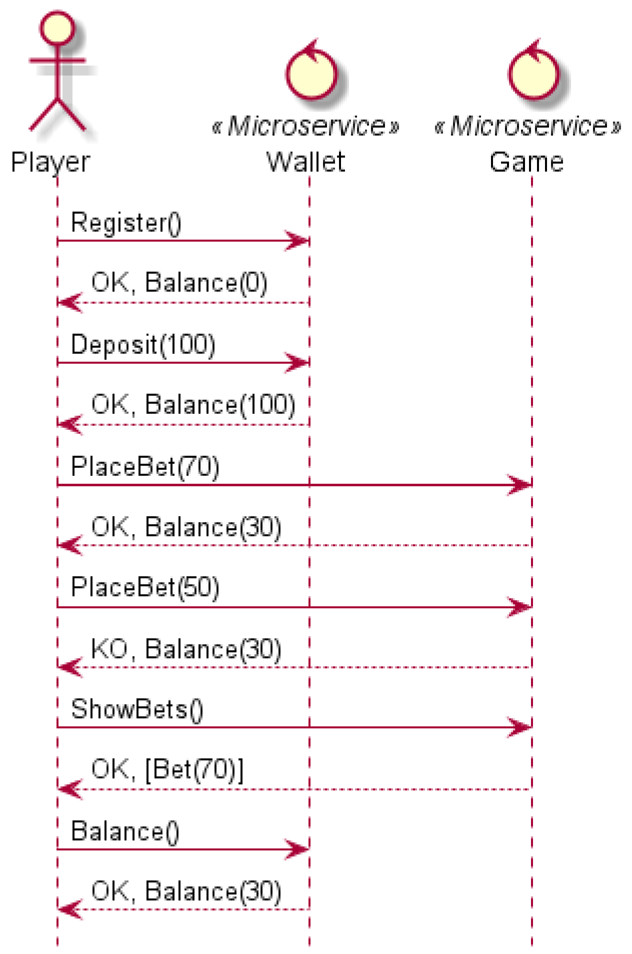
ShowBets

- In
    - playerId
- Out
    - OK, List<Bet>
    - KO, player not found

Non functional requirements

1. One of following languages (Java, Scala, Groovy) should be used
2. Pick up frameworks or libraries according to your needs
3. Persistence layer (SQL, NoSQL, etc) is mandatory for `Wallet`
4. System should support simple scaling scenario, i.e. several instances of `Game` can work with one `Wallet`
5. Ensure concurrent updates to `Wallet` doesn’t break data consistency

Functional test scenario



Deliverables

1. Source code for both services
    a. Automated tests for services are highly appreciated
2. Brief guide how to build services
3. Scripts and guides how to start the entire **Simple Casino** system
4. **Simple Casino** should be comprised of
    - One instance of `Wallet` service
    - Two instances of `Game` service
5. Source code for functional test scenario
6. Brief guide how to execute functional test scenario against running **Simple Casino** system