

# Cubeia

Java Wallet Coding Challenge

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## The task

Implement a basic bookkeeping (accounting) application that keeps track of funds. Also called a “wallet” in online gaming terminology.

## Deliverables

Link to GitHub repository (or similar) or a zip-archive. Instructions on how to build and run. Basic API documentation.

## Description & Requirements

Implement a basic bookkeeping service that handles monetary transactions and keeps track of account balances. This is similar to a normal bank account.

The service should have at least the following API methods:

1. get balance - return the balance for an account
2. transfer - transfer funds to or from an account
3. list transactions - list transaction entries for an account
4. create account (optional) - create an account, this can be done implicitly when creating transactions or explicitly

The implementation should be a HTTP server exposing the API using REST. No UI is required.

We will be using curl or POSTman to test the API.

## Implementation

You can choose the effort put into the test yourself. We estimate it to take around 4 hours depending on experience and scope. The code needs to be thread safe and should work in an environment where we might be running a cluster of wallet servers.

Implementation shortcuts are acceptable as long as they are documented and the proper solution is outlined.

Keep this in mind:

- Correctness is important - it should never be possible to get an incorrect balance of an account
- The code should be readable and easy to follow
- Thread safety and concurrency will be considered as an important aspect.

## Technology

- Java 17+
- REST framework, preferably Spring Boot
- Avoid using Project Lombok