



Introduction

At **Clearpay EU** we have created a new virtual coin called ClearpayCoin. We need to build a small internal tool to help admin users to transfer ClearpayCoins between internal user wallets and see their transactions.

This assessment consists of 2 tasks. One backend task to design and build a REST API and another frontend task to implement a little user interface to interact with the tool.

Technical Requirements

- Backend: Use Java language and ideally SpringBoot.
- Frontend: Use HTML, JS, CSS, ideally implementing the task on top of actual frameworks like React (ideally), Angular or Vue. If you feel comfortable, you can use CSS libraries for a base design.
- Ideally implemented with some storage layer (could be memory or disk). (Valuable NoSQL / MongoDB usage)
- Final task code must compile and be ready to use.
- Time limit is 1 week, but if you deliver it sooner, it will be taken into account when evaluating it.
- We would like to see unit tested code for backend and frontend.
- The assessment has points marked as **Bonus**. They are not mandatory to do but we will take them into consideration positively.
- **Bonus:** If you feel comfortable using Docker for the tasks, go ahead!
- **Bonus:** You can go as far as you want. Be creative! If you want to hide an Easter Egg, that would be great, if you want to add new features go ahead! We like to see fancy things.

Business requirements

- We need a REST API + admin panel.
- The system will be used by an admin user (to simplify, no credentials for login will be required)
- Each user can have 1 or multiple virtual wallets.



- Each wallet has a unique identifier.
- Admin user should be able to open a user, access one of the wallets, see the wallet balance and make a transfer using the hash of a destination wallet.
- The system must validate that there is enough balance before a valid transaction can be made.
- The system can be used by several administrators at the same time (consider that although there are no credentials for admin users, you should take into account the requirement that potentially it still can be used by different admin users at the same time).

Tasks

1) Design and implement a backend service based on REST API capable of managing the specifications described above. You can model the system as you wish, there are no restrictions on this.

At least the following endpoints are requested:

- Obtain system registered users.
- Get wallets per user with the balance.
- Send money from one wallet to another wallet.

2) Design and implement a UI integrated with the previous REST API and having the following features:

- List registered users.
- View the available wallets of a user with their balance.
- Operations panel to transfer ClearpayCoins from one wallet to another wallet.

The test must be delivered back in a compressed file attached or in a repository like GitHub, GitLab, BitBucket, etc.

Thank you!

Clearpay Team