Senior Backend Developer Homework Assignment

Objective

The goal of this assignment is to evaluate your ability to design and implement a **RESTful API** using a **microservices-based architecture** while incorporating key features such as:

- PostgreSQL
- Docker Compose.
- Caching
- Queue
- Concurrency
- Security.

You may use any programming language of your choice, but **Kotlin or Java** is preferred.

Task Description

You will build a simple **Fund Transfer System**

- As a user, I want my own **wallet** to store and manage my money safely.
- I want to **add money to my wallet using a gift code** easily.
- I want to **send money to other users**, even if they use a different currency, with **exchange rates** set by the system.
- I want the system to **process transactions quickly and accurately** and keep my balance updated without delays.

- I want the system to **keep a record of all my transactions** so I can check my history anytime.
- I want to **download my transaction history as a CSV or Excel file** if needed.
- I want the system to **handle payments in the background** without slowing things down.
- I want my wallet and transactions to be **secure**, so only I can access them.

Submission Guidelines

1. Push your code to a **GitHub repository** and send the solution via email **sochestor@soramitsukhmer.com.**
2. Make sure we can run the services seamlessly with just a simple shell script.
3. Include a Postman Collection or alternative API Docs.