

Software engineering

Technical test

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Company Profile

Thunes provides a cross-border network that delivers smarter payment solutions for emerging economies.

We help to make financial services accessible for everyone by interconnecting diverse payment systems that allow unbanked people to access the global economy. Our network makes it possible for Mobile Wallet Operators, Corporations, Merchants, Money Transfer Operators, and Banks to facilitate the real-time movement of funds to and from emerging countries.

With our three key payment solutions - P2P remittance processing, corporate mass payouts, and digital payment services - our global network spans across over 80 countries with over 9000 payout partners.

Our team is headquartered in Singapore with regional offices in London and Miami.

For more information visit www.thunes.com

Introduction

In a parallel universe early nineteen nineties, software and the internet are booming. Many programming languages and technologies that we know of in our world today exist and production ready. You are a Software Engineer at MobileWallet2020 - a mobile wallet company based in Singapore - that provides a mobile wallet as a service. Every user of MobileWallet2020, can hold funds in their wallets in SGD.

Originally specialized in payment, MobileWallet 2020 wants now to provide a fund transfer solution across its user base. User A can send 20 SGD to user B, with a transfer message.

First version of that new service is API based, as development lead, you have been assigned the job of developing an online API for the new funds transfer service.

Requirements

Here are the requirements for the money transfer service:

- ☐ User accesses the service through an authenticated HTTP-based API.

(user registration, login not required, provisioned user/credentials through SQL script are fine)

- ☐ User should be able to send money to other users
- ☐ User should be able to retrieve their balance, and transactions
- ☐ Usually MobileWallet2020 stores their data on relational Database, but other means of storage are fine
- ☐ Give some thought as to how the application would be monitored, instrumentation etc, considering that it would be expected to provide logging downstream to an external platform such as Prometheus (To be discussed during the interview)
- ☐ Please state any assumptions that you make

You have the luxury of proposing (not implementing) one killer feature in your app, to impress the management of the company.

Important - if distributing your project via GitHub or similar public repository, please ensure that all references to Thunes and Mobile Wallet 2020 are removed from the project, or else use GitHub private repository.

Deliverables

- Fully functioning code, hosted on a version control system (e.g. GitHub private repository)
- Unit tests (partial coverage is perfectly fine, no need to unit test everything)
- Web API with a simple documentation
- Steps required to run the application
- Extra: Dockerize the application (plain docker, docker compose, K8s, ...)