







**Jérémy Sorant**Ingénieur logiciel senior - SHODO LYON





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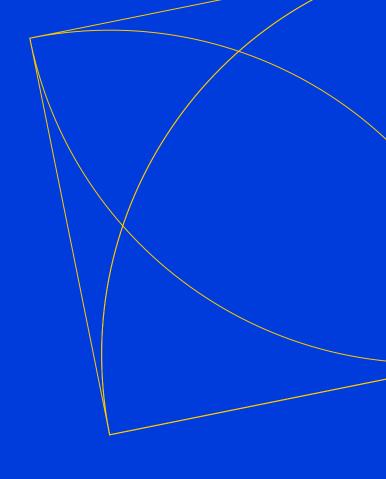


#### SHODO





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### Application backend

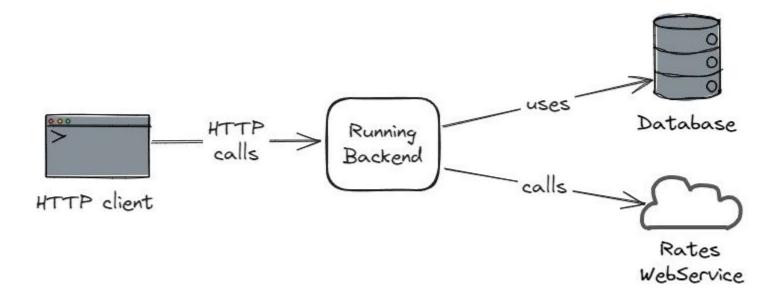
Gère des comptes bancaires (accounts)

#### Features:

- → Créer un compte
- → Déposer de l'argent
- → Retirer de l'argent
- → Consulter le solde (deux devises : EUR et JPY)



## Ça ressemble à ça:



# Les problèmes

# **Code legacy**



# Feedback long



# Opérations manuelles



# Augmentation de la dette



## **Objectifs**

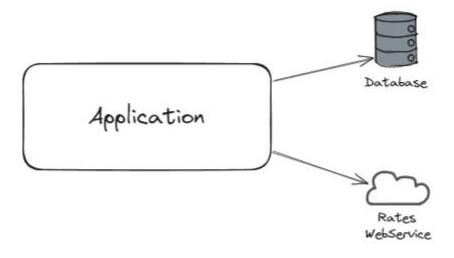
#### Reprendre la main sur le code :

- → Découvrir des outils de tests
- → Utiliser des stratégies de test pour améliorer le code
- → Ajouter une feature en TDD
- → S'amuser & échanger

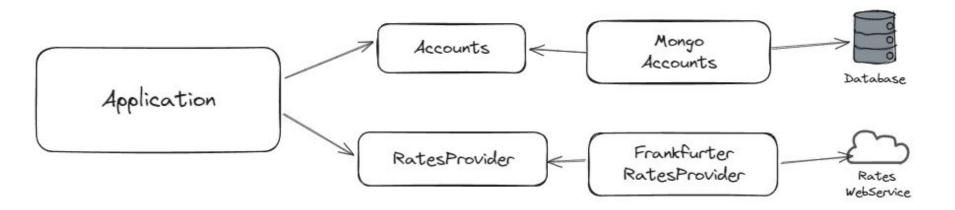
# Live coding!

## Bilan

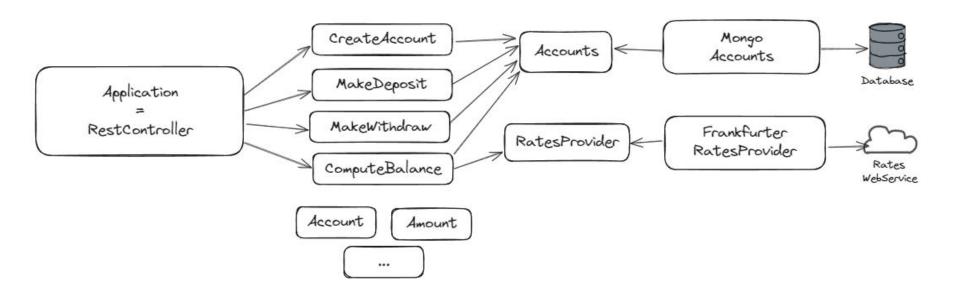
## 1) Filet de sécurité



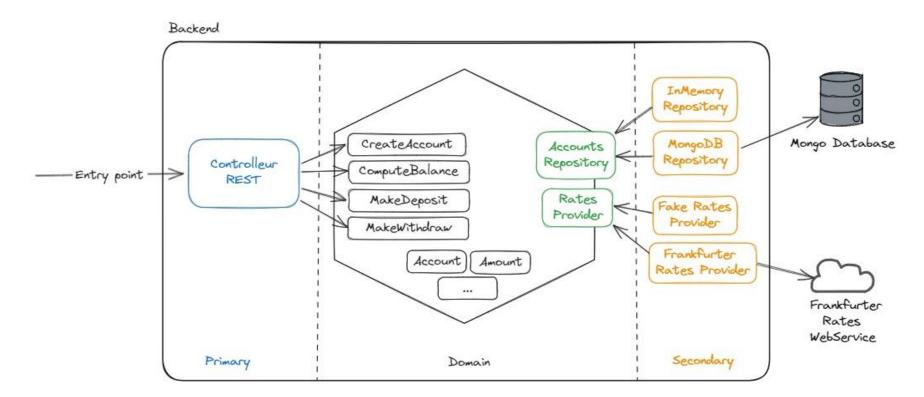
## 2) Isoler les dépendances externes



## 3) Isoler les règles métier



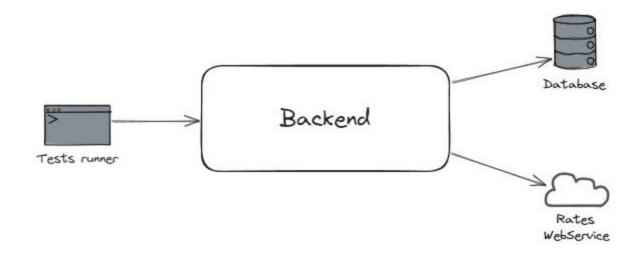
## Architecture hexagonale



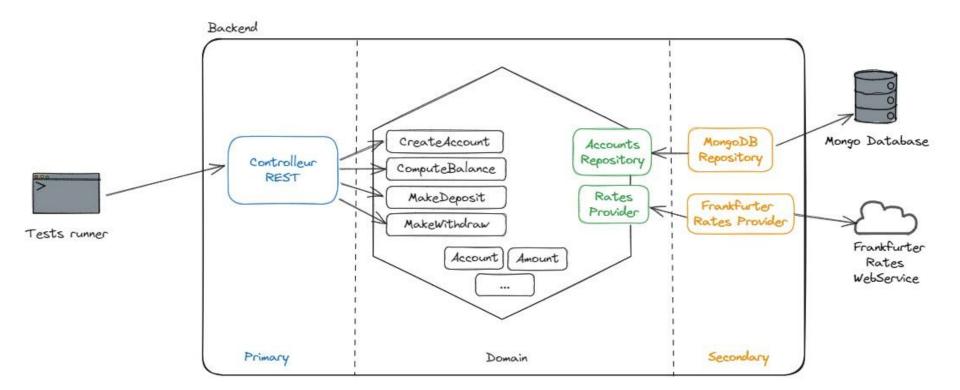


# Types de tests

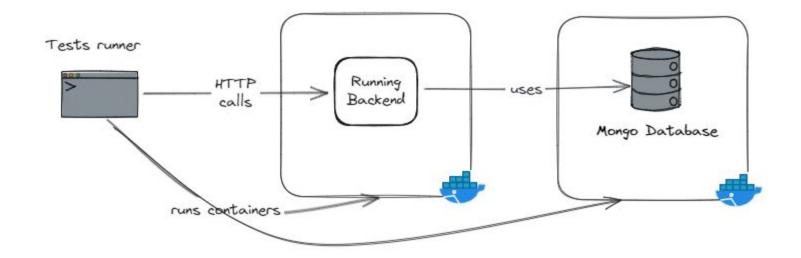
#### Tests end to end



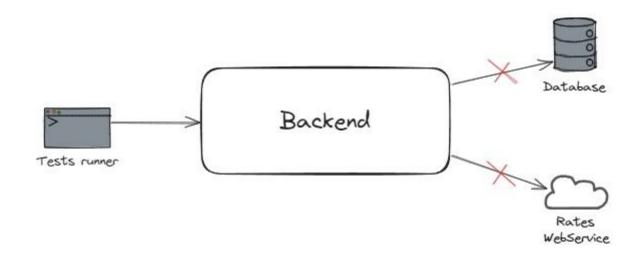
#### Tests end to end



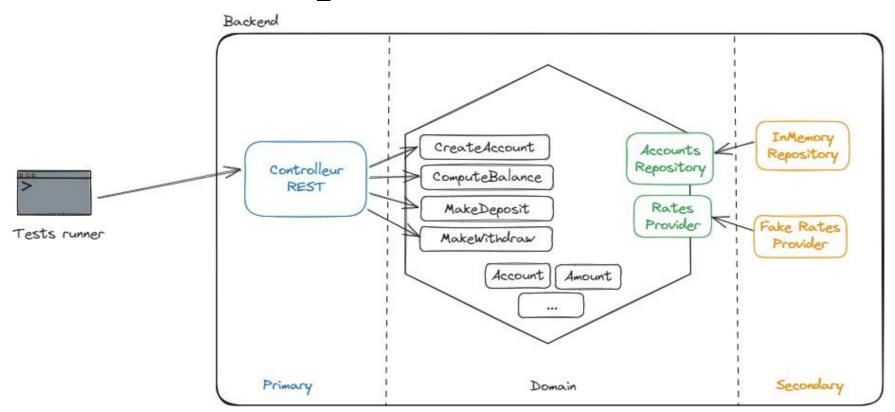
#### Tests end to end



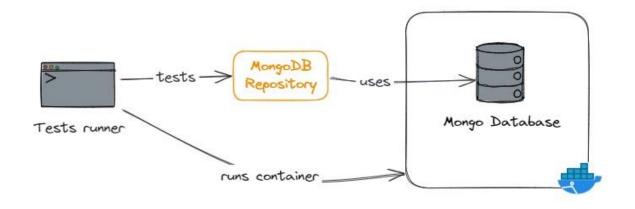
# Tests de composant



## Tests de composant

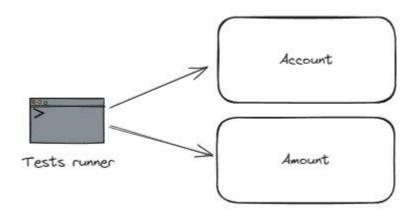


## Tests d'intégration





#### Tests unitaires



#### **Outils**

- → Tests runner : Vitest, mode UI, code coverage, watcher mode
- → Supertest
- → TestContainers

#### Doublures de test

- → Stub
- → Fake

#### Existe aussi:

- → Dummy
- $\rightarrow$  Spy
- → Mock



### Concepts

- → Injection de dépendance
- → SRP (SOLID)
- → DIP (SOLID)
- → Screaming architecture
- → Double loop TDD



#### **Ouvertures**

- → Stratégies de tests : pyramid, diamond, honeycomb...
- → Mieux gérer les dates et le générateur de UUID
- → Primitive obsession
- → Immutability
- → Aggregate / Entity / Value Object
- → Event sourcing / CQRS

...











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