You are selected backend developer for a new product named UniTech. It is fintech solution for bank products. In first version we have 5 functionalities. Every functionality described below. You as a backend developer must implement all functionalities and write unit tests for each case.

1. Register API

Description: As a user I want to register in UniTech app.

Definition of done:
1. I am able to register with my pin
2. I get proper error message when I try to register with already registered pin
3. All unit tests pass

2. Login API

Description: As a user I want to login to my UniTech account

Definition of done:
1. I am able to login to my account with my pin and password
2. I get proper error message when I type wrong credentials
3. All unit tests pass

3. Get accounts API

Description: As a user I want to see my accounts

Definition of done:
1. I can only see my active accounts
2. All unit tests pass

4. Account to account API

Description: As a user I want to make transfers from my accounts to other accounts (also to my other accounts)

Definition of done:
1. I am able to successfully make transfers
2. I get a proper error message when there is no enough money in my account balance
3. I get a proper error message when I try to make transfer to same account
4. I get a proper error message when I try to make transfer to deactive account
5. I get a proper error message when I try to make transfer to non existing account
6. All unit tests pass

5. Currency rates API

Description: As a user I want to see selected currency rate. Currency rate is a currency pair. For example: USD/AZN = 1.7, AZN/TL = 8. Assume that currencies come from third party service and every request has some cost (You can mock this service). Currency rates change every 1 minute in third party side. Apply optimal solution for both performance and cost.

Definition of done:
1. I am able to see selected currency rate. It must be up to date.
2. It should cost to company as low as possible
3. All unit tests pass