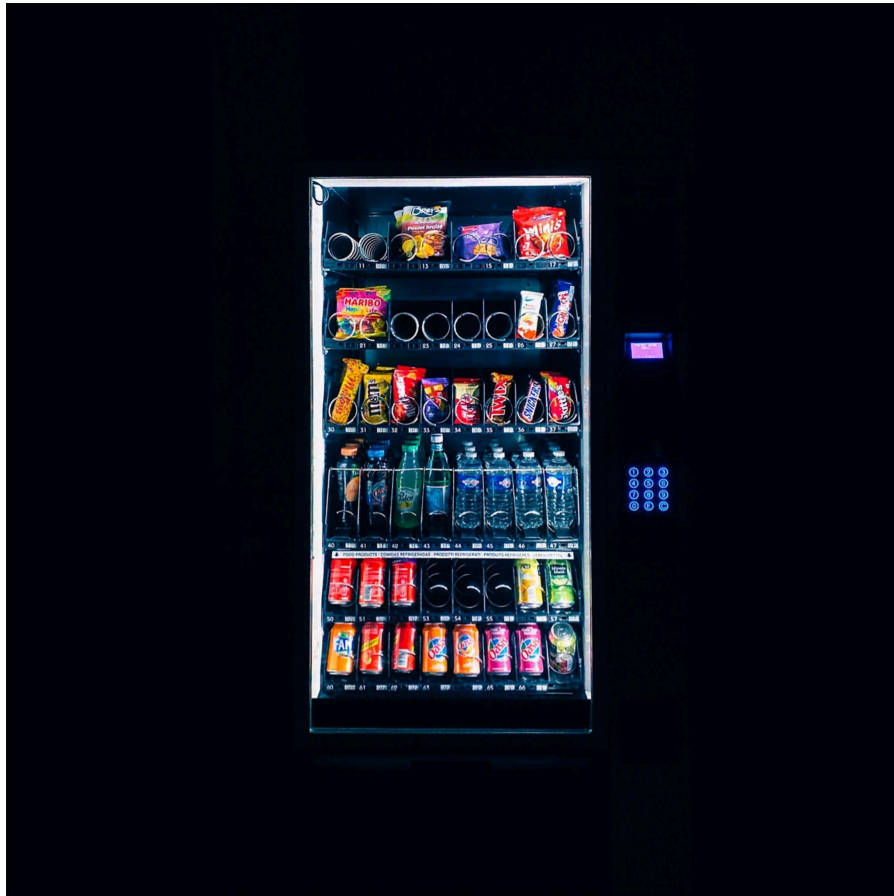


Welcome to FlapKap's Backend challenge!



In this exercise we want you to design an API for a vending machine, allowing users with a “seller” role to add, update or remove products, while users with a “buyer” role can deposit coins into the machine and make purchases. Your vending machine should only accept 5, 10, 20, 50 and 100 cent coins

Tasks

- REST API should be implemented consuming and producing “application/json”
- Implement product model with amountAvailable, cost, productName and sellerId fields
- Implement user model with username, password, deposit and role fields
- Implement CRUD for users (POST shouldn't require authentication)
- Implement CRUD for a product model (GET can be called by anyone, while POST, PUT and DELETE can be called only by the seller user who created the product)

- Implement /deposit endpoint so users with a “buyer” role can deposit 5, 10, 20, 50 and 100 cent coins into their vending machine account
- Implement /buy endpoint (accepts productId, amount of products) so users with a “buyer” role can buy products with the money they’ve deposited. API should return total they’ve spent, products they’ve purchased and their change if there’s any (in 5, 10, 20, 50 and 100 cent coins)
- Implement /reset endpoint so users with a “buyer” role can reset their deposit
- Take time to think about possible edge cases and access issues that should be solved

Evaluation criteria:

- Choose your favorite Language/Framework (Java/Kotlin, C#, Node, etc.)
- Code Structure & Quality
- Production readiness
 - Logging
 - Exception handling

Bonus:

- Write API tests for all implemented endpoints
- Security (Authentication/Authorization)

Please upload the code to your github account in a **private repository** along with a README describing how to run it and invite [knassef](#) to it.

Good Luck!