Dummy

Money Transfer API

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Overview

Affects Version		**Product Manager**	
Target Version		**Dev Lead**	
JIRA Link		**QA Lead**	
Doc Status	DRAFT DONE	**UX Designer**	

Summary

Problem Statement:N/A

Solution Statement: API to transfer money between 2 accounts

Solution Benefit(s):User will be able to add users at runtime and transfer money between their accounts

Target Customer(s):Systems, endusers, other API

User Manual to run the API from Command line:

1. got to jar folder and type:
   java -jar MoneyTransfer-0.0.1-SNAPSHOT-jar-with-dependencies.jar
2. Embedded server will be up on specific URI and port like "Jersey Application Server started on http://192.168.1.15:8080"
3. Send Requests using below samples

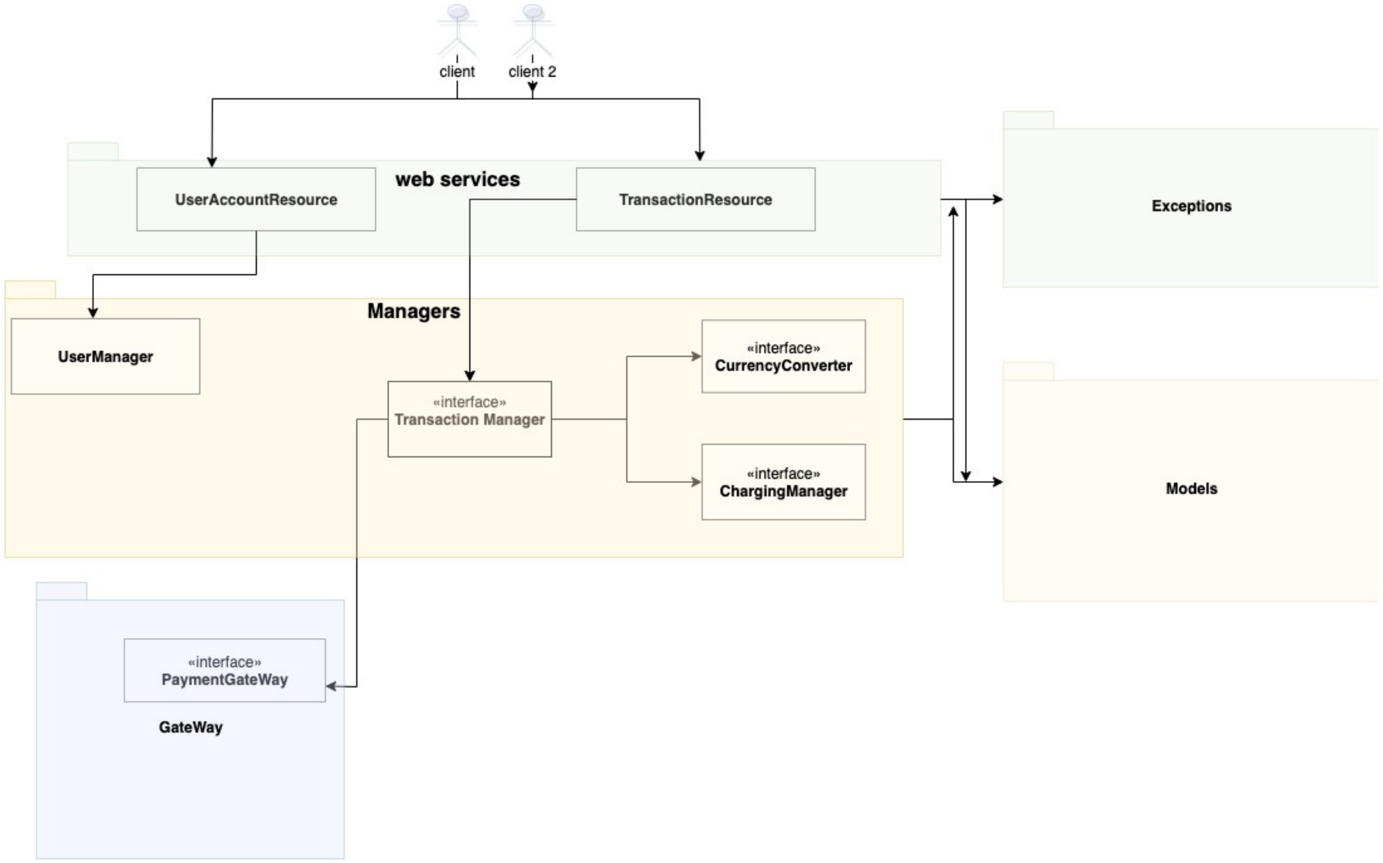
   Sample URL:http://localhost:8080/transactions

Use Cases samples

XML Samples	Scenario (when)	Expected Behavior (then)
Happy Path(s)		

Post <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <userAccount> <id>11</id> <name>mohamed</name> <email>mmmm</email> <accountNumber>11111</accountNumber> <accountValue>100</accountValue> <currency>USD</currency> </userAccount> Post -><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <transactionParam> <senderID>11</senderID> <receiverID>10</receiverID> <amount>1</amount> </transactionParam>	Add user to runtime storage Process transfer between sender to receiver by specific amount based on the currency exist in their accounts	User added successfully receiver account increased by amount and sender account will be deducted by amount plus charging fees
Edge Case(s)		
	Different Currencies accounts while process transfer transaction Decimal account values in user account while any mathematical operation	receiver account increased by amount and sender account will be deducted by amount plus charging fees Account values will be deducted or added in an accurate manner
Error Case(s)		
	Pass currency not supported by system Process Transaction on user not exist No enough credit in sender account	500 (error while converting currency) 500 (Invalid/Missing Parameters) 500 (Sender Credit not enough)

Technical Low Level Design



Feature List Done

1. User sign up
2. Transfer money between 2 accounts
3. Embedded server
4. Apply charging fees to be deducted from sender
5. Transaction Atomicity & failure handling
6. -Currency converter
7. Return detailed invoice
8. Scalable
9. Durable
10. Consistency
11. unit testing

Assumptions

1. The API will transfer money between two accounts not necessary a bank accounts that's why there is no bank object.
2. no container needed to serve request
3. No database created and using in memory storage instead.
4. embedded server exist and must be started to be able to start sending requests
5. must add at least two user accounts with different id to be able to transfer money between accounts.
6. Payment gateway will be inside the API and not external one.
7. Apply charging fees to be deducted from sender
8. if sender has no credit, the transaction will be rejected
9. if unexpected errors happened while transaction ,system will rollback to the old account value

Technical Dependencies

Java(JDK 8) eclipse

com.tunyk.currencyconverter for currency conversion

jersey Rest Implementation

maven API packaging and build

junit . unit testing

Future Work

Schedule Transfer
Notification system
Rate throttler
Database Saving(Sql DB)
Use Real Payment Gateway

End points	Functionality
/users	post/delete/get{id}/getAllUsers
/transactions	post Transaction processing

Checklist	Notes (if any)

Questions and Answers

Question	Answer	Asked To	Asked By