## horizontal line



Currency Manager

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# Overview

The app would allow the users to manage their currency wallets, access foreign currency exchange prices (with historical data), log currency exchange transactions, and set notification requests for specific events connected to the foreign exchange currency prices.

Utilities will include an admin panel, support centre for logging tickets and logging service.

# Features

## User:

1. Currency Wallet
   * Display currently held amounts of foreign currency and their worth in base currency
     1. Cards (HeldCurrencyAmount, HeldCurrencyWorth)
   * Display cumulative worth of all currencies in base currency over time
     1. Area Graph with all held currencies (date range)
2. Transaction Log
   * Log foreign currency exchange transactions (buy / sell)
     1. Form (Date, Type, AmountExchanged, AmountReceived, ExchangeLocation)
   * Display transaction log
     1. List (SelectedCurrency / AllOwnedCurrencies, date range)
     2. Line Graph(SelectedCurrency / AllOwnedCurrencies, date range)
3. Currency Exchange
   * Current Exchange Rate
     1. Card (against base currency / chosen currency)
   * Historical Exchange Rate Data
     1. Line Graph (against base currency / chosen currency)
   * View 10 calmest / most volatile currencies
     1. List (date range)
   * View all currencies according to the change in their prices
     1. List (date)
4. Notification Centre **(NICE TO HAVE)**
   * Set notification events
     1. Alert on foreign currency price drop / increase
        1. Email (percentage, level)
     2. Alert on held assets worth drop / increase
        1. Email (percentage)
   * Reports
     1. Daily / Weekly / Monthly reports on held assets, chosen currency changes
        1. Email (assets / chosen currency)
   * Notifications / updates
     1. Communication from admin
        1. Email / in-app
5. Support Service **(NICE TO HAVE)**
   * Log support tickets / bug reports / feature requests

## Admin:

1. User Management
   1. Manage user accounts (CRUD)
      1. Admin panel
2. Logger
   1. View log-in logs of users
      1. List
   2. View error logs of users
      1. List
   3. View action logs of users
      1. List
3. Notification Centre **(NICE TO HAVE)**
   1. Send messages to users
      1. Email, in-app

# Technology Used

## Front-End:

1. **Views**: Thymeleaf, Bootstrap, HTML, CSS, JavaScript
2. **Graphs**: Google Charts

## Back-End:

1. **Database**: MySQL
2. **Logic**: Java :)

# Views:

## Public:

1. Register
2. Login
3. Support Centre (cannot log-in request)
4. Error

## User:

1. Logout
2. Currency Wallet
3. Transaction Log
4. Currency Exchange
5. Notification Centre
6. Support Centre (all other requests)

## Admin:

1. Admin Panel
   1. User Management
   2. Logger
   3. Notification Centre

# Timeline:

## Week 0

* **16.06 (8h)**
  + Features graph ✅
  + Documentation ✅
  + Relationships map ✅
  + Model repository ✅

## Week 1

* **17.06 (5h)**
  + Eureka ✅
  + Config Server ✅
  + Config Repository ✅
  + Transaction Service RESTful API✅
    - Currency Wallet logic✅
* **18.06 (5h)**
  + Transaction Service RESTful API✅
    - Currency Wallet logic✅
* **19.06 (5h)**
  + Transaction Service RESTful API✅
    - Transaction Log logic✅
* **22.06 (8h)**
  + Currency Exchange RESTful API
    - Current Exchange Rate
    - Historical Exchange Rate Data
* **23.06 (8h)**
  + Currency Exchange RESTful API
    - View 10 calmest / most volatile currencies
    - View all currencies according to the change in their prices

**REASSESS PROJECT**

## Week 2

* **24.06 (5h)**
  + User Panel
* **25.06 (5h)**
  + User Panel Front-End
* **26.06 (5h)**
  + AdminPanel
* **27.06 (5h)**
  + AdminPanel Front-End
* **28.06 (5h)**
  + Backup Time
* **29.06 (8h)**
  + Nice to Have
* **30.06 (5h)**
  + Nice to Have