

Requirements and Analysis Document for LEEFO

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version 1

1 Introduction

The purpose of this project is to create an Android application for finance tracking. The application is a tool created for anyone to get a better understanding and a clear picture of ones income and expenses. The user manually enters their transactions into the app and chooses what category it lies under. The application then keeps track of the users spending every month and displays how much money goes to different categories through diagrams and lists. Users can also create a monthly budget to get maximum control of their money.

1.1 Definitions, acronyms, and abbreviations

Transaction, an instance of income or expense. Example a food purchase or receiving salary. A transaction has associated with it, an amount, a date, a category and an optional description.

2 Requirements

2.1 User Stories

01 Enter transactions

As a user, I want to be able to enter new transactions so that I can keep track of my spending and the application can properly represent my account balance.

Confirmation, functional

- Can I enter a new transaction?
- Can I set an amount?
- Can I set a date?
- Can I chose a category?
- Can I chose income/expense?
- Can I edit a transaction after adding it?
- Can I remove a transaction?

02 Overview

As a user I want a page were I can view general information on the same screen so that I can get an overview of my current financial situation.

Confirmation, functional

- Can I, on a single screen, see my total income, expense and balance for the current month?
- Can I, on the same screen, see some representation of my expenses for that month?

03 View transactions, list

As a user I want to be able to see a list of my previously entered transaction so that I can keep track of what I have entered.

Confirmation, functional

- Can I view my previously entered transactions this month in a list?

04 View transactions, pie chart

As a user, I want to be able to view my transactions in a pie chart, sorted by category to see how my spending is distributed between different areas.

Confirmation, functional

- Can I see my spending for each category in a pie chart?
- Can I clearly understand what "slice" corresponds to what category?
- Can I see the percentage for a "slice"/category?

05 View transactions, single category

As a user, I want to be able to view my transactions from a single category so that I can see more details of where the money goes in that category.

Confirmation, functional

- Can I chose which category I want too view?
- Can I see the transactions of the chosen category?

06 Edit/delete transactions

As a user, I want to be able to edit and delete my previous transactions so that I can correct wrongfully entered data.

Confirmation, functional

- Can I edit a transaction?
- Can I remove a transaction?

07 Monthly time periods

As a user I want to be able to see my transactions monthly, not all history since the start, so that I can think of my economy in monthly intervalls as humans commonly like to do.

Confirmation, functional

- Can I see my transactions from the current month?
- Can I change to see my transactions from previous months?

08 Set budget

As a user I want to be able to set a budget so that I can plan my spending.

Confirmation, functional

- Can I chose a time period for my budget (monthly, weekly)?
- Can I set a budget without categories?
- Can I set a budget with categories?

09 View Budget

As a user I want to be able to check how well I am following my budget so that I can know how much money I can afford to spend.

Confirmation, functional

- Can I see how well I am currently following my budget?

10 Edit Categories

As a user, I want to able to edit the amount of categories available so that I can customize the categories to fit my own life.

Confirmation, functional

- Can I create custom categories?
- Can I edit existing categories?
- Can I remove a category?

Confirmation, nonfunctional

Avalability

- Can I remove a category that has transactions under it without breaking the application?

11 Compare

As a user I want to be able to compare spending between years/months so that I can see how my spending has changed between years/months.

Confirmation, functional

- Can I compare my spending?
- Can I decide what time periods I would like to compare?
- Can I see the comparison displayed in a diagram?

12 Selectable time periods

As a user, I want to be able to see my transaction from different time periods. Not just monthly but be able to chose how long and how far back, so that I can view my transactions from any given time.

Confirmation, functional

- Can I change the time period to year/month/week/since start?

2.2 Definition of Done

For a user story to be considered finished it must meet the following criteria.

- All added features are tested and have passed junit tests. (90+ percent coverage)
- User story confirmations are fulfilled as expected.
- Completed features are added to github.
- The code is well commented. All public methods must have javadoc comments.

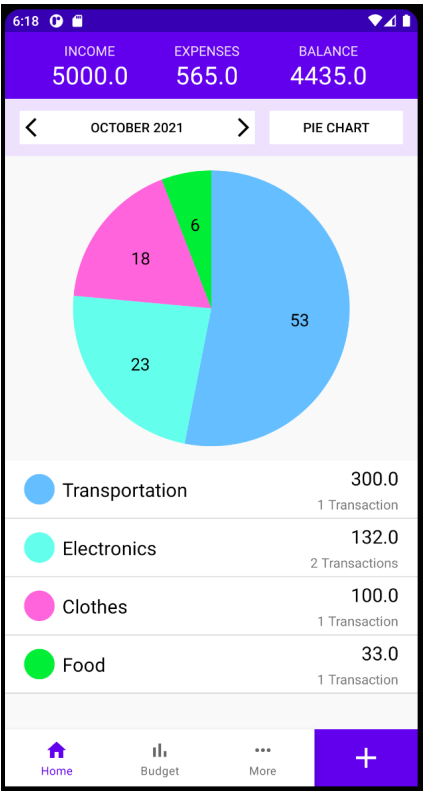
2.3 User interface

The graphical user interface consists of three main pages, home, budget, more, which are navigated with a navigation bar at the bottom of the screen. The navigation bar also contains the plus button which is used to add a new transaction.

The "home" page is the start page and it contains an overview of the users transactions in a chosen time period. Here the user can chose between two different visualizations of the transaction data. Either a list view which displays every transaction in a list sorted by date with the most recent on top. Or a category view which contains a pie chart based on category as well as a more compact list ranking the the categories from most to less amount spent in them. These list items are clickable and takes the user to another page with a list of every transaction in that specific category.

The "budget" page is where the user can create a budget and see how well the budgets spending goals are met.

The "more" page contains additional features which are not as commonly used. Here the user can edit its categories and add new ones.



6:18

INCOME	EXPENSES	BALANCE
5000.0	565.0	4435.0

< OCTOBER 2021 > LIST

Today

Salary	5000.0
Electronics	-32.0

Yesterday

Electronics	-100.0
Transportation	-300.0
Clothes	-100.0

2021-10-02

Food	-33.0
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Home Budget More +

6:19

✕

New Transaction

☒ Expense ☐ Income

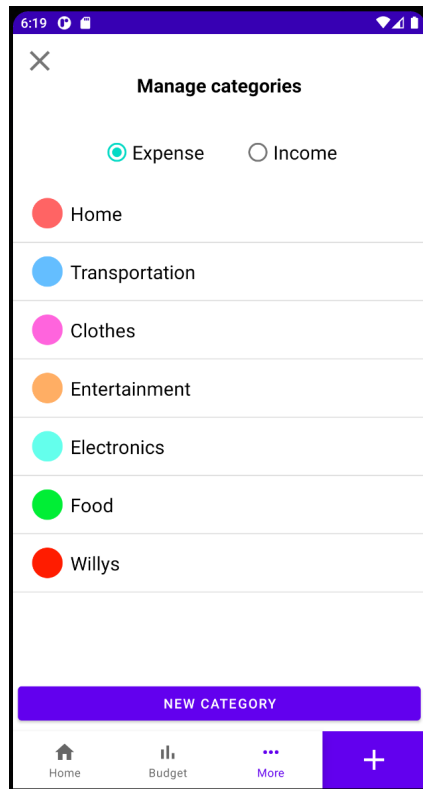
Amount: 100

Category: Entertainment

Date: 2021-10-06

Note: |

SAVE



3 Domain model

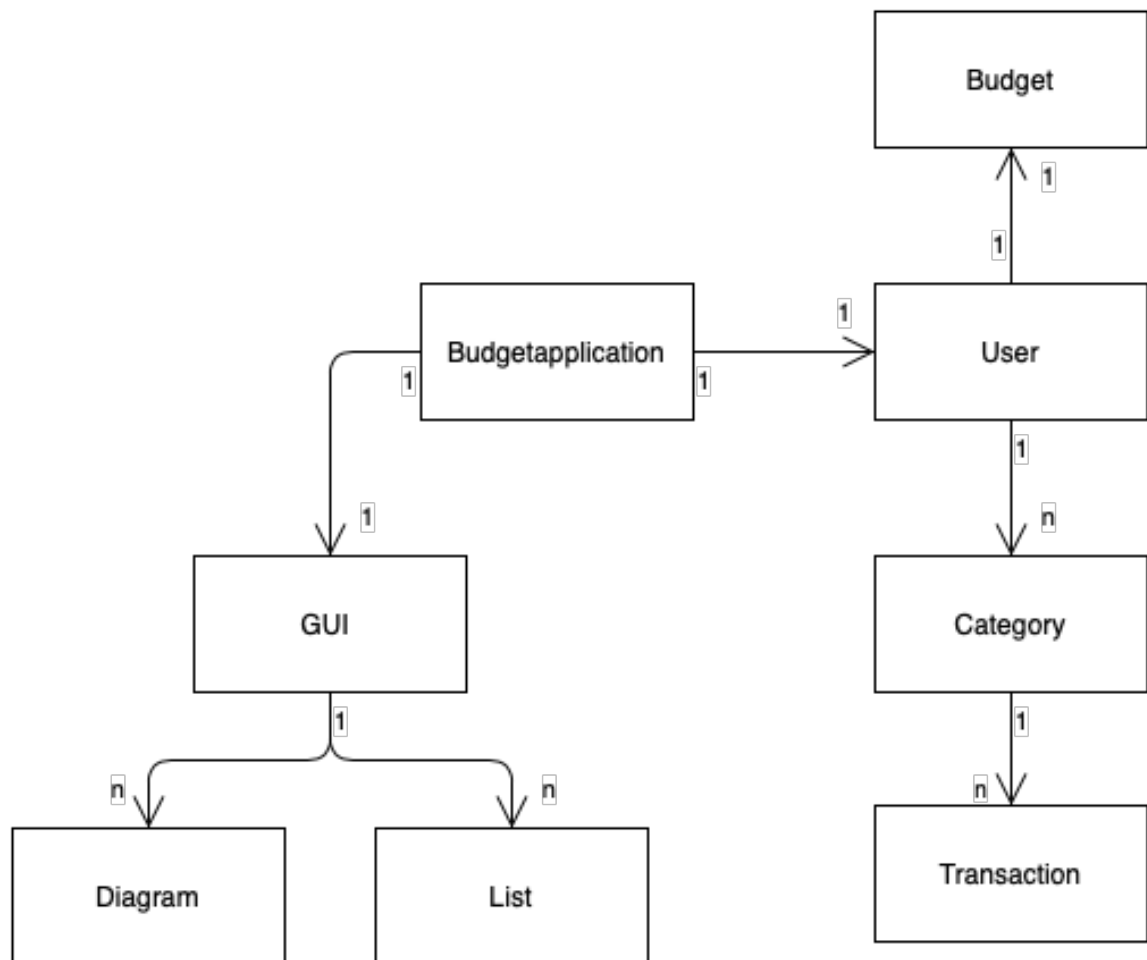


Figure 1: Domain model

3.1 Class responsibilities

Budgetapplication - Represents the application and connects the other classes.

User - The user of the application.

Budget - A spending budget the user can set

Category - Categorisation of incomes and expenses, every single transaction falls under one category chosen by the user. The user can edit the number of transactions and customize their names and colors.

Transaction - A container for the user's transaction data. The user can add a unlimited number of transactions.

GUI - Represents the graphical user interface of the application.

Diagram - Displays the users transaction data through diagrams in the GUI.

List - Displays the user transaction data through lists in the GUI.

4 References

MPAndroidChart - chart library for Android.
<https://github.com/PhilJay/MPAndroidChart>