Budget Mate: Open Source Budget App

Final Presentation in Mobile Application

Jan Furio / 28.01.2024

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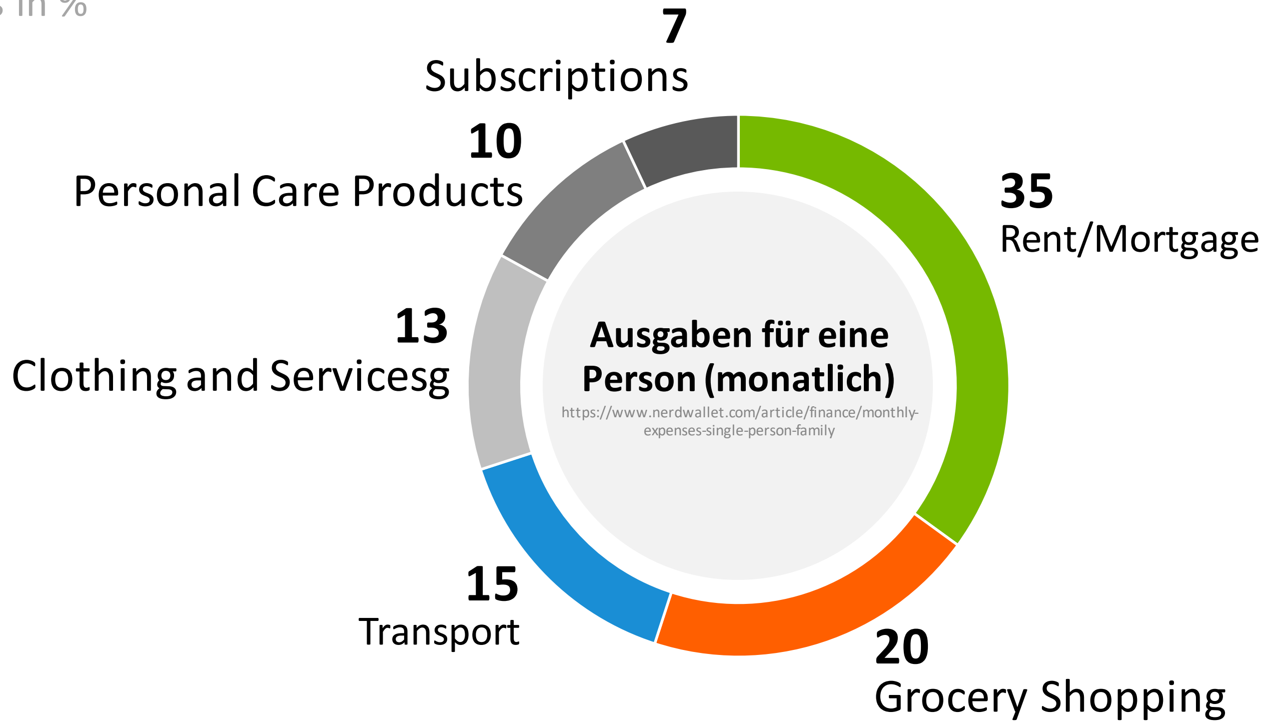
Why *another* Budget App?

Values in %



Why *another* Budget App?

https://www.businessofapps.com/data/google-play-statistics/

2.65Billion
Apps on Google Play Store

about 90%
Not FOSS

Low weight

76%
Google AdMob and others

80/20 Rule

Offline?
Nearly all apps require access to mobile data

Aims of BudgetMate

Minimal UI

BudgetMate uses Google's Material UI 3.0 to ensure a consistent design.

Offline-Functionality

By using the Room Database, all user data remains securely stored on the device.

Simple Navigation

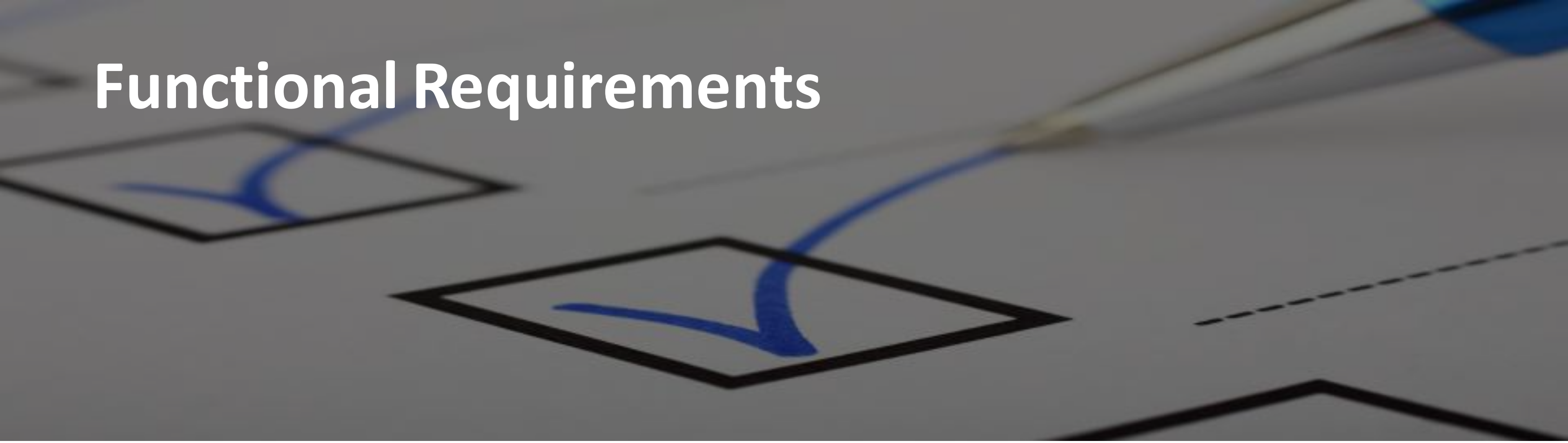
The app features a navigation bar at the bottom of the screen, allowing for intuitive operation.

FOSS

The complete code for BudgIT is published on GitLab to demonstrate a commitment to FOSS (Free and Open Source Software) and give back to the community.

Budgeting

BudgetMate aims to help users manage their finances more effectively.



Functional Requirements

History

Integrated transaction history that can be manually entered, which must include a "label" and an "amount."

Fragments

The app should contain a Home Fragment, an Add Transaction Fragment, a Budget Fragment, and a Transaction Fragment.

Budget

The ability to manually enter the budget within the app. Each new entry should allow the input of an amount and frequency (options being "daily," "weekly," "fortnightly," "monthly," "yearly").

Infrastructure

The app stores the transactions and budget data within the Users device.

Home

The home screen should provide a clear overview of the user's financial status, featuring the last three transactions.

Fragments

Home

Overview of balance, expenses, and budget.

Add Transaction

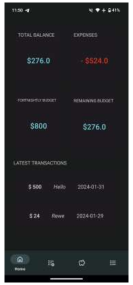
Input form for new transactions.

Budget

Budget setting options.

Transaction

Transaction list of transactions made with delete function.


11:50

TOTAL BALANCE $276.0

EXPENSES - $524.0

FORTNIGHTLY BUDGET $800

REMAINING BUDGET $276.0

LATEST TRANSACTIONS

$ 500 *Hello* 2024-01-31

$ 24 *Rewe* 2024-01-29

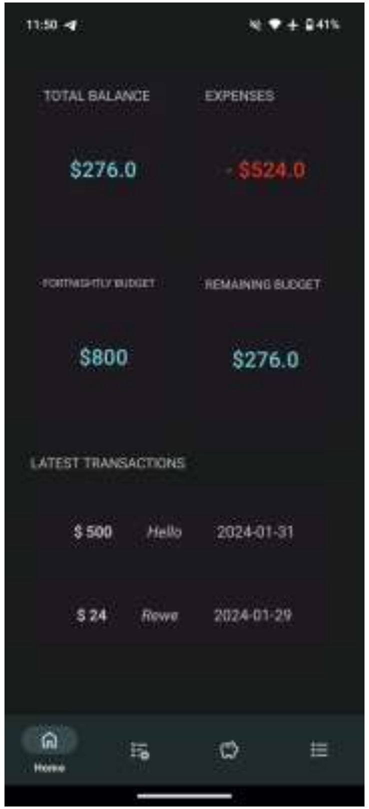
Home

At a Glance

Displays the user's total balance, expenditures, budget, and remaining budget

Recent Transactions

Shows the latest transactions (sorted by date in descending order)


11:50 41%

TOTAL BALANCE $276.0

EXPENSES - $524.0

FORTNIGHTLY BUDGET $800

REMAINING BUDGET $276.0

LATEST TRANSACTIONS

$ 500	*Hello*	2024-01-31
$ 24	*Rewe*	2024-01-29

Add Transaction

Label

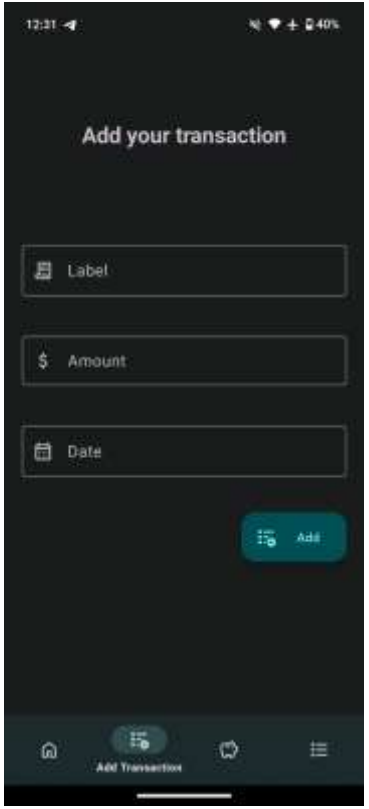
The user enters the transaction name as a string.

Amount

The user enters the amount as a double.

Date

Displays a Material 3.0 date pop-up, which is entered as a DateTime type.



Budget

Select frequency

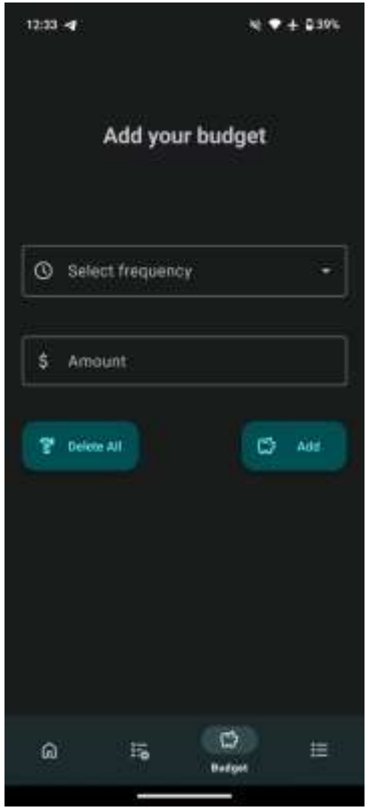
The user selects from the dropdown box between: daily, weekly, fortnightly, monthly, or yearly.

Amount

The user enters the amount of their new budget as a double.

Delete All

The user can delete all their entered and automatically generated budgets.



Transactions

Transaction History

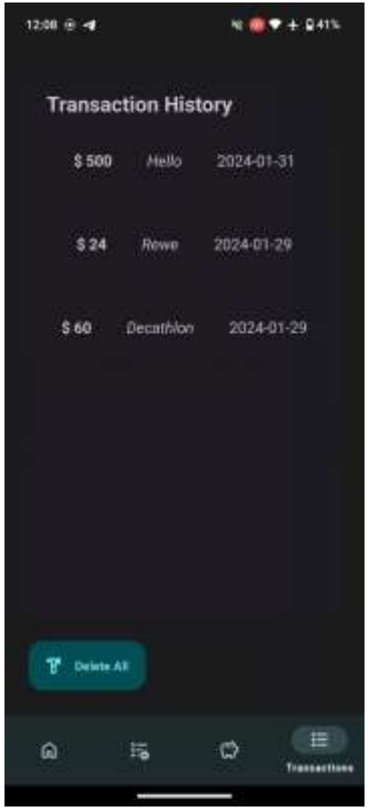
All transactions added by the user are displayed here.

Swipe to Delete

Users can delete individual transactions with a right or left swipe gesture.

Delete All

Users can delete all transactions they have entered.



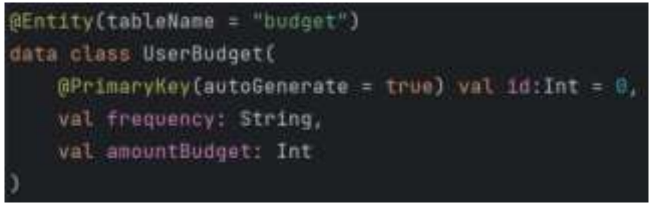
Transaction History

$ 500	Hello	2024-01-31
$ 24	Rewe	2024-01-29
$ 60	Decathlon	2024-01-29

Database Structure

Budget Table

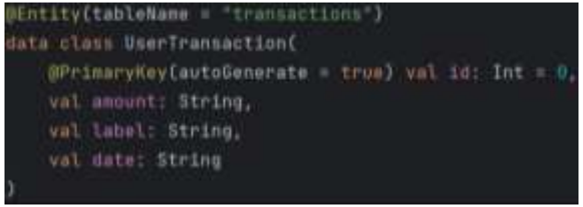
Has a PrimaryKey, stores the frequency as a string, and the budget amount as an Int.



```kotlin
@Entity(tableName = "budget")
data class UserBudget(
    @PrimaryKey(autoGenerate = true) val id:Int = 0,
    val frequency: String,
    val amountBudget: Int
)
```

Transactions Table

Has a PrimaryKey, stores the amount, label, and date as a string.



```kotlin
@Entity(tableName = "transactions")
data class UserTransaction(
    @PrimaryKey(autoGenerate = true) val id: Int = 0,
    val amount: String,
    val label: String,
    val date: String
)
```

Thank You.

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