

Banking Mobile

Development Document

CS - 4850 - 02

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Professor Perry

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SP-26 Blue Budget

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Summary

Blue Budget App is a financial mobile application tool that will help users take control of their finances regardless of whether or not they have any financial literacy. The app will present the users with intelligent tools such as expense tracking, customizable budgets, and actionable financial insights. The application thoroughly addresses the common challenge of financial management that may benefit any user over the age of 18.

1. Development Implementation

Main App – “Blue Budget”

Built with Flutter (Dart) for state management with five main screens: **Dashboard**, **Budget**, **Transactions**, **Goals**, and **Profile**.

Dashboard

Displays account balance, total monthly spending, and recent transactions. Uses ‘monthlytotals’ to calculate net income. Transactions update when Plaid Sandbox data is linked.

Budget Screen

Shows budgeted, spent, and remaining totals with progress bars for each category: Groceries, Dining, Rent, and Transfer. Indicates overspending in red and remaining funds in green. Updates in real time through appState.

Transactions Screen

Lists each transaction with merchant, date, category, and amount. Replaces seeded data with Plaid Sandbox transactions after linking.

Backend / Plaid Integration

Node/Express backend connects to Plaid Sandbox API using demo credentials Returns sample checking-account data to the Flutter app. Tested on macOS and Windows.

Website

A simple project website will display app details, screenshots, and team information. Planned host: **GitHub Pages**, with Google Sites as backup.

Ongoing Work

Add category charts and goal visuals, allow user-created categories, refine the UI to make it more visually engaging, and finish the website before the prototype presentation. Each of the transactions will need a description, amount, and date. The categories will be customizable with rent, income, groceries etc as default. The add button will be prominent and will have recurring expenses like rent and subscriptions. You can filter the app by dates and categories.

2. Database Connection

Plaid API / AppState

No database currently in use. Data flows from Plaid → Node/Express → Flutter

3. How to Set Up the Project

Overview

Mobile budgeting app for iOS, Android, and web. Uses Flutter for UI and Node/Express backend for Plaid data.

Requirements

Flutter SDK, Node.js (LTS), Xcode/iOS Simulator for macOS, or Android Studio for Android. Optional: VS Code with Flutter and Dart extensions.

Install and Run

```
git clone https://github.com/1e1ouch/Budget-App.git
```

```
cd Budget-App
```

```
flutter pub get
```

```
open -a Simulator
```

```
flutter devices
```

```
flutter run
```

Plaid Test Login

1. Open “Connect Accounts.”
2. Log in with credentials.
3. Select Checking and complete MFA.
4. Dashboard and Transactions update with Plaid data.

4. Monetization Plan

- **Revenue Options**

Free version with banner ads and optional ad-free premium version. Possible paid upgrades for advanced analytics or custom categories. Possible “Support Us” donation button option. Sponsored financial tips or affiliate links as future additions.