STTPK2143 Application Programming

Session 1 2025/2026 (A251)

Lab Assignment 1
Money Sprint – Savings Goal Tracker

Prepared For:
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PREPARED BY:

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README
App Name: Money Sprint

Project GitHub Link
https://github.com/zenwaifu/flutter_projects.git
– MoneySprint App

YouTube presentation Links
https://youtu.be/g-LDdkwOMfk

App Description
Money Sprint is a simple financial utility app built with Flutter that helps users calculate how many weeks are needed to reach their savings goals. By entering their target amount, weekly savings, starting balance, and preferences, users can quickly track and plan their personal savings journey.

Input → Process → Output

Inputs

Text Field
- Target amount (RM)
- Weekly savings amount (RM)
- Current savings balance (RM)

DropDown
- Reason for saving (Menu: Personal, Education, Household, Vacation, Other
- Saving priority (Menu: Low, Medium, High)

ElevatedButton
- Calculate
- Reset

Process

- Validate that all fields are filled and numeric inputs are valid.
- Calculate remaining balance = Target Amount – Starting Balance.
- Compute weeks needed = Remaining Balance ÷ Savings Per Week.
- Display a success or error message using a SnackBar.

Output

- Displays the calculated number of weeks needed to achieve the goal.

- Shows a confirmation message with reason, priority, and weeks required.
- Error messages for invalid or missing input.

Widgets Used

- Text – For titles, labels, and output.
- TextField – For entering numeric input (target, savings, balance).
- DropdownButton & DropdownMenuItem – For selecting saving reason and priority.
- ElevatedButton – For “Calculate” and “Reset” actions.
- Row / Column – For layout and alignment
- Container – For UI grouping and background decoration.
- Scaffold – For overall page structure.
- SnackBar – For validation feedback messages.
- AppBar – For page title and theme consistency
- Image.asset – For splash screen logo.
- CircularProgressIndicator – For splash loading animation.
- SingleChildScrollView – To ensure scrollability on smaller screens.

Basic Validation

- Empty Field Check - Ensures all text fields and dropdowns are filled before calculation.
- Numeric Input Validation - Uses double.tryParse() to safely handle numeric conversion and reject invalid inputs.
- Logical Validation - Ensures all numeric values are greater than zero. If starting balance ≥ target amount, displays message: “You have already met your savings goal.”
- Feedback Mechanism - Displays real-time feedback using SnackBar with red (error) or green (success) color indicators.

Authorship Note

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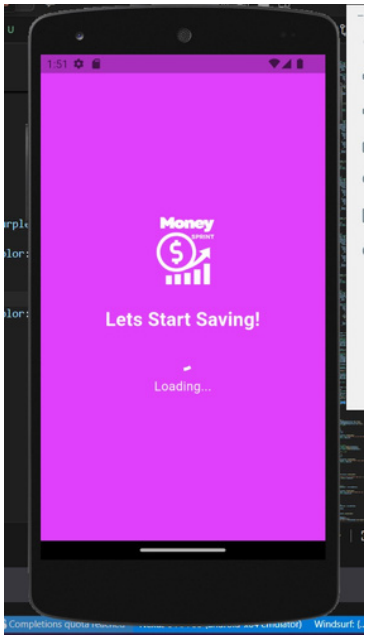
“I confirm thatthisproject represents my own original work in accordance with academic integrity policies.No part of the code was fully generated by AI tools such as ChatGPT or GitHub Copilot.Irelied solely on lecture notes, class tutorials, and official Flutter documentation.Iunderstand that my work may be scrutinized, and if it is found that I did not personallydevelop the code, marks may be deducted, or the submission may be disqualified.”

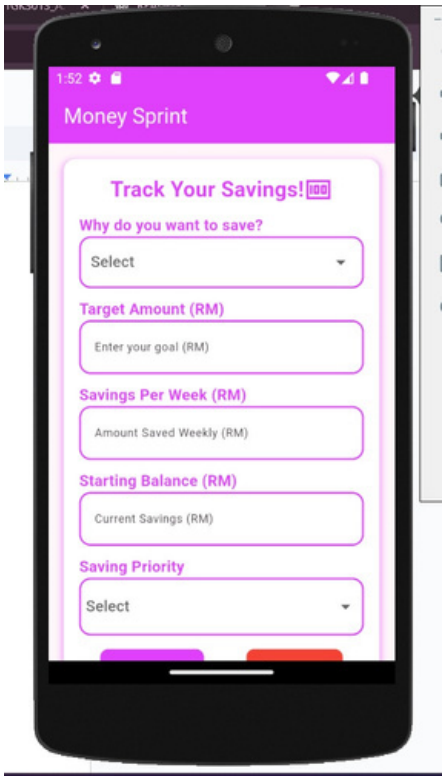
Signature:

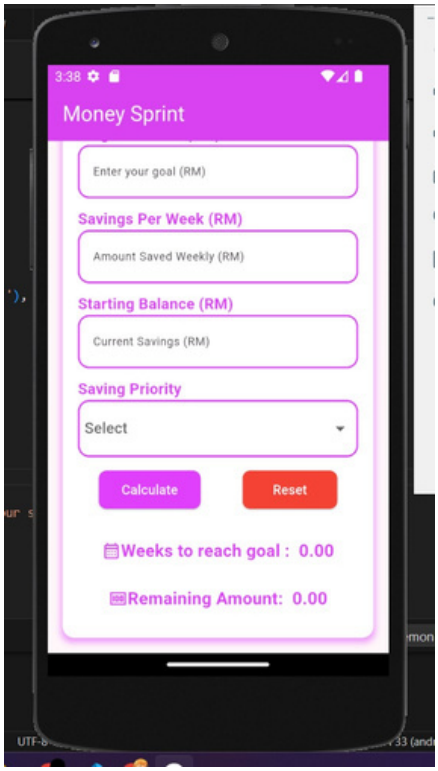
Screenshots

1. Splash Page



2. HomePage before Calculation





3. HomePage after Calculation