



**STTPK2143 Application Programming**

**Session 1 2025/2026 (A251)**

**Lab Assignment 1  
Money Sprint – Savings Goal Tracker**

**Prepared For:  
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# README

## App Name: Money Sprint

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### Project GitHub Link

[https://github.com/zenwaifu/flutter\\_projects.git](https://github.com/zenwaifu/flutter_projects.git)

~~— MoneySprint App~~

### YouTube presentation Links

<https://youtu.be/g-LDdkwOMfk>

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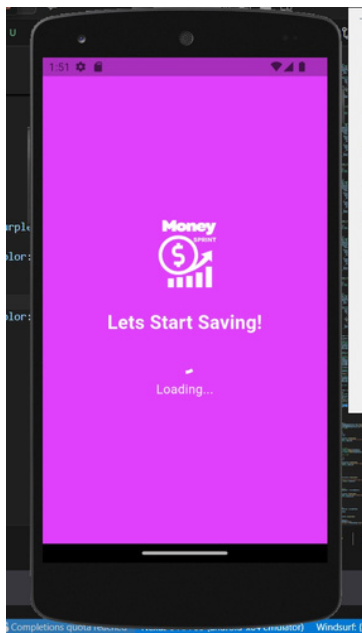
“I confirm that this project represents my own original work in accordance with academic integrity policies. No part of the code was fully generated by AI tools such as ChatGPT or GitHub Copilot. I relied solely on lecture notes, class tutorials, and official Flutter documentation. I understand that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

**Signature:**

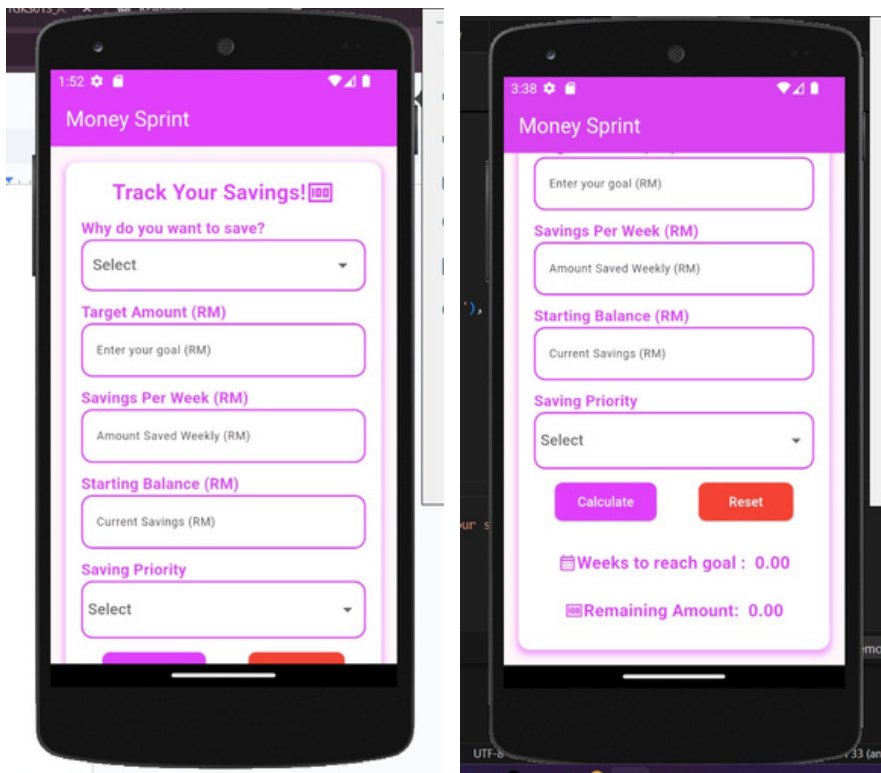
*Hema*

## Screenshots

### 1. Splash Page



### 2. HomePage before Calculation



### 3. HomePage after Calculation

The image displays three sequential screenshots of a mobile application titled "Money Sprint".

**Left Screenshot (Initial State):** The app is in the "Track Your Savings!" section. It features a dropdown menu for "Why do you want to save?" set to "Education". Below are input fields for "Target Amount (RM)" (50000.58), "Savings Per Week (RM)" (2548.50), "Starting Balance (RM)" (15000), and a "Saving Priority" dropdown set to "High". At the bottom are "Calculate" and "Reset" buttons.

**Middle Screenshot (Processing State):** The "Calculate" button has been pressed. The input fields remain visible. A green banner at the bottom displays the results: "Goal: Education", "Priority: High", and "You can reach your goal in 13.73 weeks with currently remaining balance of 35000.58".

**Right Screenshot (Final State):** The app has returned to the input screen. The input fields now show the calculated values: "Target Amount (RM)" is 50000.58, "Savings Per Week (RM)" is 2548.50, and "Starting Balance (RM)" is 15000. Below these, it shows "Weeks to reach goal : 13.73" and "Remaining Amount: 35000.58". The "Calculate" and "Reset" buttons are still present.