

# **Project Plan: Expense Tracker**

## **1. Project Overview**

**Goal:** Build an application that lets users input their Income(s) and Expense(s), categorize them and return the Surplus/Deficit

## **2. Timeline**

**Estimated Project Duration:** 8 Weeks

## **3. Milestones and Tasks**

**Milestone 1:** Project Set Up and Initial Planning

**Task 1.1:** Choose project and determine requirements

**Time:** 1 Day

**Deliverable:** Project Plan, Requirements Document, Gantt Chart

**Task 1.2:** Choose programming language and create Repository

**Time:** 1 Day

**Deliverable:** Working GitHub Repository with README file

Functional IDE chosen and installed for Java coding

**Task 1.3:** Design the basic UI layout

**Time:** 2 Days

**Deliverable:** Description of what the application will look like

## **Milestone 2: Backend Development and Functionality**

**Task 2.1:** Design an algorithm that receives user inputs

**Time:** 1 Week

**Deliverable:** Modular algorithm that stores user inputs locally

**Task 2.2:** Implement data categorization and error handling

**Time:** 1 Week

**Deliverable:** Assigns data (User Inputs) to a specific category such as Income or Expense and their type (E.g. Rent Expense)

**Task 2.3:** Calculate the net income and net expense (Surplus/Deficit)

**Time:** 1 Week

**Deliverable:** Algorithm that returns a Positive (Surplus) or Negative (Deficit) number

## **Milestone 3: Frontend Development**

**Task 3.1:** Build basic User Interface

**Time:** 3 Days

**Deliverable:** UI that prompts user to input data (Income or Expense)

**Task 3.2:** Connect UI to API and Backend functions

**Time:** 1 Week

**Deliverable:** Functional connection to API

Result and Category displayed in UI

### **Task 3.3:** Implement add/edit/delete functionality to UI

**Time:** 4 Days

**Deliverable:** User can input additional Incomes/Expenses

Result is modified and displayed again

### **Milestone 4:** Testing and Bug Fixing

#### **Task 4.1:** Write unit tests for Backend functionality

**Time:** 2 Days

**Deliverable:** Backend unit tests E.g. Positives, Negatives, Decimals, Integers

#### **Task 4.2:** Write tests for Frontend UI (Different User Inputs)

**Time:** 2 Days

**Deliverable:** Comprehensive Frontend tests

#### **Task 4.3:** Fix identified bugs and improve error handling

**Time:** 5 Days

**Deliverable:** Bug-free system with error handling messages

### **Milestone 5:** Deployment, Consultation, Final Review

#### **Task 5.1:** Upload final program to GitHub (With documentation)

**Time:** 1 Days

**Deliverable:** Final application/documentation able for review on GitHub

### **Task 5.2:** Consultation and feedback from lecturer

**Time:** 1 Week

**Deliverable:** Documented feedback with possible improvements

### **Task 5.3:** Final modification, review, and documentation

**Time:** 1 Week

**Deliverable:** Error-free/Modified application with finalized documents

## **4. Deliverables**

### **1. Project Requirements Document:**

Details of the application such as the features, design and possible challenges

### **2. Source Code:**

Functional, Error-free code that performs intended tasks

### **3. UI Design:**

Visual features of the application

### **4. Working application:**

Overall working application that combines Frontend and Backend functionality

### **5. Unit Tests:**

Test cases for the Frontend and Backend (Base cases and Extreme cases)

### **6. GitHub Uploads:**

README, Project Plan, Gantt Chart, Features, Test Cases, Presentation

### **7. Project Report:**

Summary of the project, challenges faced and resources utilized

## **5. Risks and Mitigation Plans**

## **1. Lack of Experience:**

**Mitigation:** Continuous consultation/feedback from lecturer

## **2. Time Management:**

**Mitigation:** Maintain and follow a rigid schedule

## **3. Potential Errors and Bugs:**

**Mitigation:** Continuous testing and error handling

Construct and implement secure test cases

## **6. Project Schedule Overview**

### **1. MS1: Project Set Up and Planning**

**Duration:** 1 Week

### **2. MS2: Backend Development**

**Duration:** 2 Weeks

### **3. MS3: Frontend Development**

**Duration:** 2 Weeks

### **4. MS4: Testing and Bug Fixes**

**Duration:** 2 Weeks

### **5. MS5: Project Deployment**

**Duration:** 1 Week

