

Project Proposal

# WalletWatch

A Student Expense and Income Tracking Application

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**Course: Object Oriented Software Development Lab (CSE-3170)**



GitHub Profile

## Abstract

**WalletWatch** is a desktop application designed to help bachelor's students manage their daily financial activities easily and effectively. Developed using JavaFX and MySQL, WalletWatch allows students to record, categorize, and track their expenses (such as food, transportation, rent, education costs) and income sources (part-time jobs, scholarships, allowances). With features like multi-dashboard navigation, real-time charts, and report generation, students can visualize their financial status monthly or yearly. The application is aimed to promote better money management habits among students, helping them stay financially responsible during their academic journey.

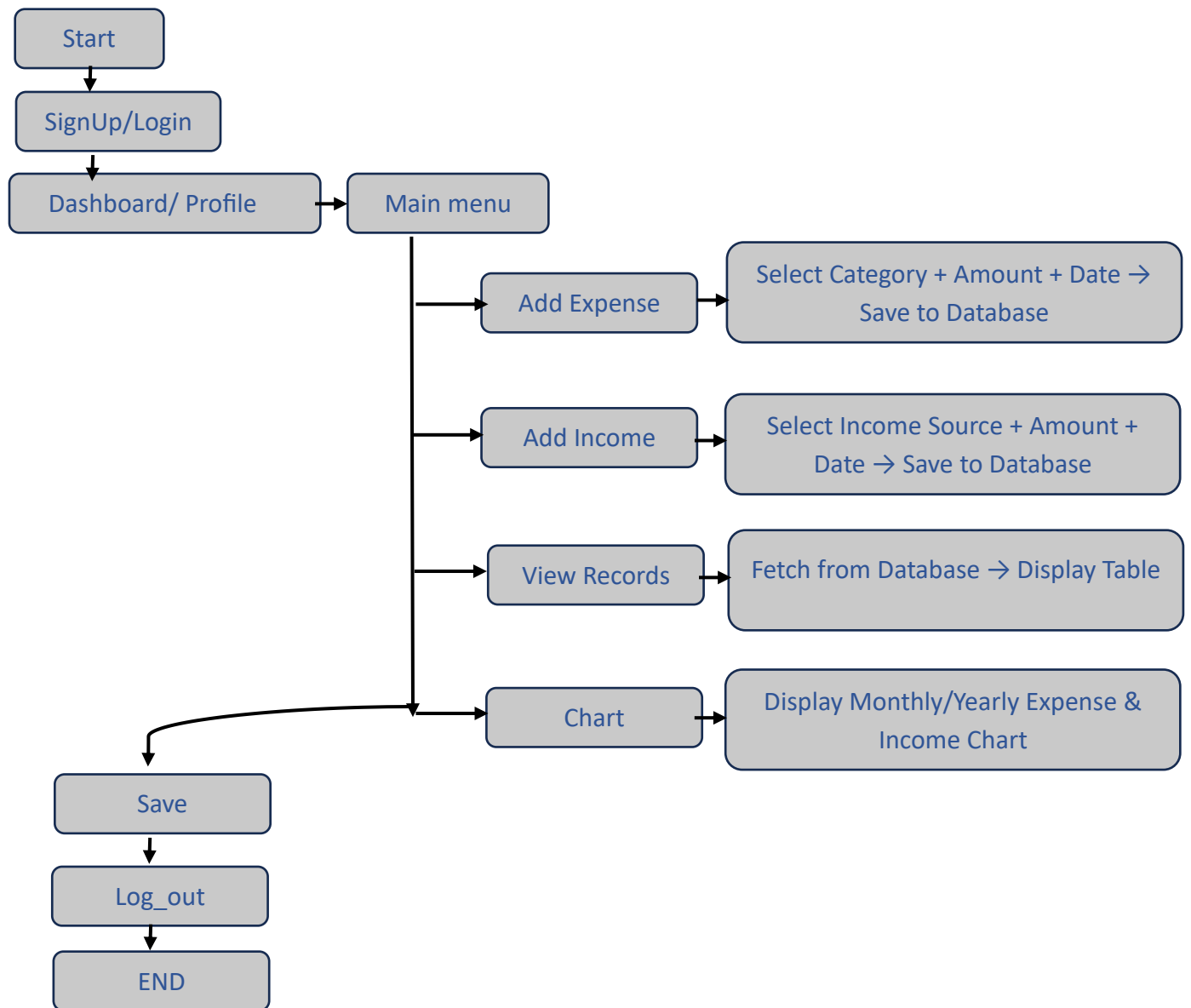
## Problem Statement

Many students struggle with managing limited budgets during their university life. Without a proper tracking system, it becomes difficult to monitor spending habits, save money, or plan expenses. There is a strong need for a simple yet effective tool that can assist students in tracking daily expenses and income, giving them a clear picture of their financial health and encouraging smarter financial decisions.

## Key Features

- **Authentication:**
  - Secure sign-up and login systems.
- **Student-Focused Categories:**
  - **Expenses:**
    - Food, Transport, Education (tuition fees, books), Phone bills, Rent, Beauty, Clothing, Electronics, Entertainment, Health, Social activities, Sports, Vegetables, Fruits, Snacks, Housing, Repairs, Gifts, Donations, Travel, Kids, Pets, Lottery, Alcohol, Cigarettes, Others.
  - **Income:**
    - Part-time job salary, Internship payments, Scholarships, Bonuses, Others.
- **Financial Record Management:**
  - Students can add, edit, and delete records easily.
- **Visualization:**

- Pie charts or bar charts to show monthly/yearly income vs expenses.
- **Reporting:**
  - Generate a detailed monthly or yearly financial report showing overall balance.
- **Future Scope:**
  - Setting financial goals.



## Methodology

- **Frontend:**
  - JavaFX for user interface development.
  - SceneBuilder for designing FXML-based dashboards.
  - CSS for optional visual styling.
- **Backend:**
  - MySQL database for storing user accounts, income, and expense data.
  - Java Database Connectivity for database interaction.
- **System Design:**
  - **Sign Up Dashboard:** New students create accounts.
  - **Login Dashboard:** Existing students securely log in.
  - **Profile Dashboard:** Students manage personal information.
  - **Main Dashboard:** Students can add, view, update, or delete expenses and income records.

## Expected Results

- A fully working student financial tracker with real-time chart visualization.
- Clear and user-friendly dashboards built with SceneBuilder.
- Secure database storage and smooth CRUD operations.
- Monthly and yearly reports to help students understand and manage their budget better.

## Conclusion

WalletWatch will act as a personal finance assistant for bachelor's students, helping them to track their spending habits, organize their incomes, and manage their financial life independently. By offering a simple yet comprehensive financial management tool, WalletWatch encourages responsible budgeting habits among students.

## References

- [Class Assignments](#)
- [JavaFX Documentation](#)
- [MySQL and JDBC Tutorials](#)
- [SceneBuilder Guide](#)
- [Java Tutorials](#)
- [JavaFX Charts and Graphs Examples](#)

## Source Code

- The source code will be maintained with regular weekly commits on GitHub.