

Project Edward: Final Project Documentation for UTM CSCI 352

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Abstract

This project is an application for those who are planning for their retirement at any point in their career. The goal of the project is to allow the user's to set retirement saving's goals and track their progress along the way. It can also be used to forecast what your savings will be if you adhere to a certain investment strategy.

1. Introduction

This project will allow a user to enter in financial information such as income, filing status, year, as well as whether they are contributing to a pretax retirement savings account to accurately calculate taxes and tax deductions for each tax year. This will allow the app to accurately reflect its user's financial history as well as help them to plan for their retirement while early in their career, which is most beneficial due to compounding interest.

1.1. Background

This application may include large amounts of financial jargon such as marginal tax rates, adjusted gross income, etc. We aim to make definitions and explanations of these terms available in app, so we can make this information more accessible.

1.2. Impacts

This application should impact the financial literacy of its users, since financial education is sorely lacking in most education programs.

1.3. Challenges

We expect some headaches when we start to implement the tax laws and regulations since it will be time consuming to get everything correct and easily changeable.

Current challenges are how we should document all of the tax brackets and we are debating on using a database with each table storing one year's tax bracket data.

2. Scope

At the completion of this project the end user will be able to enter information that will affect their tax status such as salary, filing status, and location and then the app will project how this will impact their retirement savings accounts and provide the user a resource to show how much they need to save and invest per year to meet their goals.

2.1. Requirements

The following requirements were generated based on the information needed to make financial advice.

2.1.1. Functional.

- Each user will have a profile that contains a list of the user's yearly tax history.

2.1.2. Non-Functional.

- The user will have an account number, password, and other private information.

Use Case ID	Use Case Name	Primary Actor	Complexity	Priority
1	View Profile	User	Low	1
2	Salary	User	Low	1

TABLE 1. USE CASE TABLE

2.2. Use Cases

Use Case Number: 1

Use Case Name: View Profile

Description: The user on our application wishes to view their account and the information contained in there. They will click on the "View Profile" button. Which will then refer them to their profile screen with their information contained in it.

- 1) User wishes to see their account profile, first they would need to log into their account.
- 2) The user then clicks on the View Profile button.
- 3) The user is then directed to the profile page where they can view their information

Termination Outcome: The user now is able to view their profile and view their information.

Use Case Number: 2

Use Case Name: Salary

Description: The user in the application's home screen can tap on this button to view their current salary and how much they are earning, along with their paychecks and incoming and outgoing payments.

- 1) User wishes to see their salary.
- 2) User clicks on the View Salary button.
- 3) The user is directed to the Salary page where they can view their information

Termination Outcome: The user now can view their salary information.

Use Case Number: 3

Use Case Name: Home

Description: The user will be able to go to the home screen to see updates about their information, including salary and transactions.

- 1) The user wishes to view the home page.
- 2) When the user loads up the application, this page is default, but if they are in another tab, they will click on the Home button.
- 3) The user is directed to the Home page of the application.

Termination Outcome: The user can now view the home screen and see their information.

2.3. Interface Mockups



Figure 1. Login Page



Figure 2. Home Page

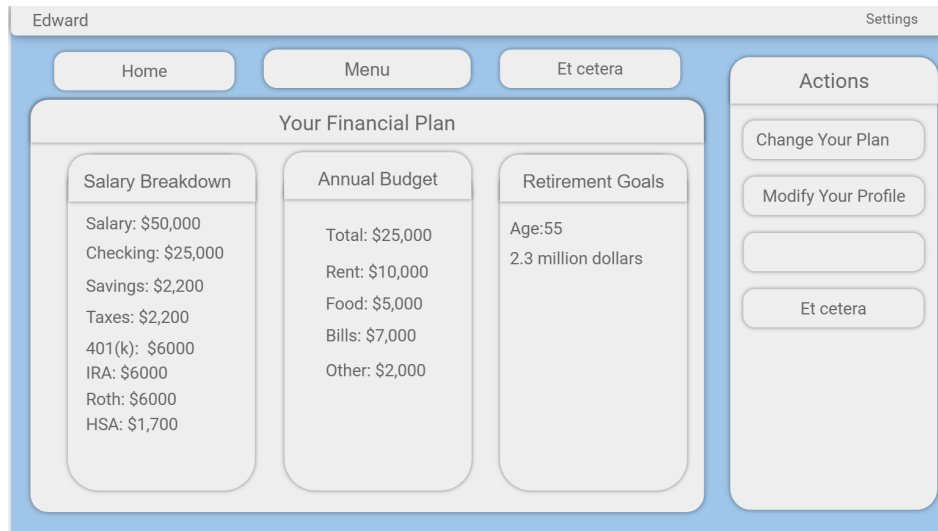


Figure 3. Financial Plan Page

3. Project Timeline

We will add project timeline in the next update.

4. Project Structure

We will add the project structure in the next update.

4.1. UML Outline

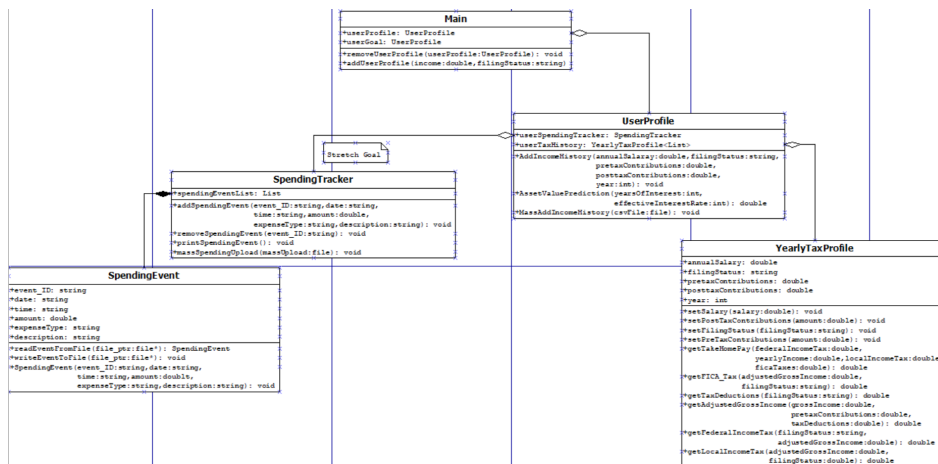


Figure 4. Backend UML

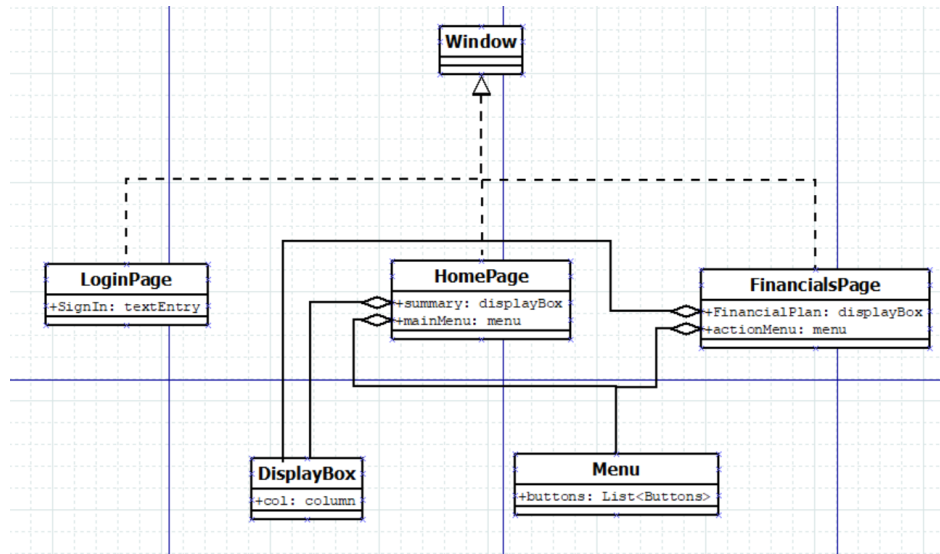


Figure 5. UI UML

4.2. Design Patterns Used

To do next submission.

5. Results

We have a general idea of where we want our project to head towards. We will be brainstorming more ideas and will document them as we complete each goal that we have set for the next upcoming deliverables.

5.1. Future Work

The next steps are to create a UML diagram of the project and get a minimum viable product working that allows the user to submit a salary amount and returns their predicted after-tax income.