

CapStoneProject

# **Penny**

Version 2.0

Submitted by,  
CapStone 4

<b>Student Name</b>	<b>Student Number</b>
Alan Sebastain Mathew	8812687
Amal Sethunath	8833290
Anjana Varadan	8804201
Anu Benoy	8812025
Jiya Joy	8821824
Thejas Kunnemkerikalam Thomas	8813231

**Professor**

Bassel Annab

**Date**

August 14, 2022

**Course**

Mobile Solutions Development

(Optional Co-Op)

Conestoga College

# Table of Contents

1. Project overview	
1.1 Purpose of Application	1
1.2 Development Environments	1
1.3 Technologies/Tools	1
1.4 Third party libraries	1
2. Block Diagram	2
3. Functional Requirement	3
4. Use case Diagram	6
5. Wireframe	7
6. Screens Explanation	
3.1 Splash screen	15
3.2 Record screen	16
3.3 Add/Edit Transaction screen	17
3.4 Category Screen	19
3.5 Statistics Screen	21
3.6 Map Screen	23
3.7 More Screen	24
7. Work Assignment	29

# **1. PROJECT OVERVIEW**

## **1.1 Purpose of application**

Penny is a free and Opensource Expense tracking Application for iPhone, where users can easily keep track of all their expenses without any annoying ads and it's completely offline with no access permissions necessary or worrying about privacy issues.

There are already several banking apps which have transactions recorded and shows about incomes and expenses. Penny comes in handy if the user is using multiple banks or wanted to record every penny that they spend.

## **1.2 Development Environment**

- XCode 13.1
- Swift 5
- iOS 12

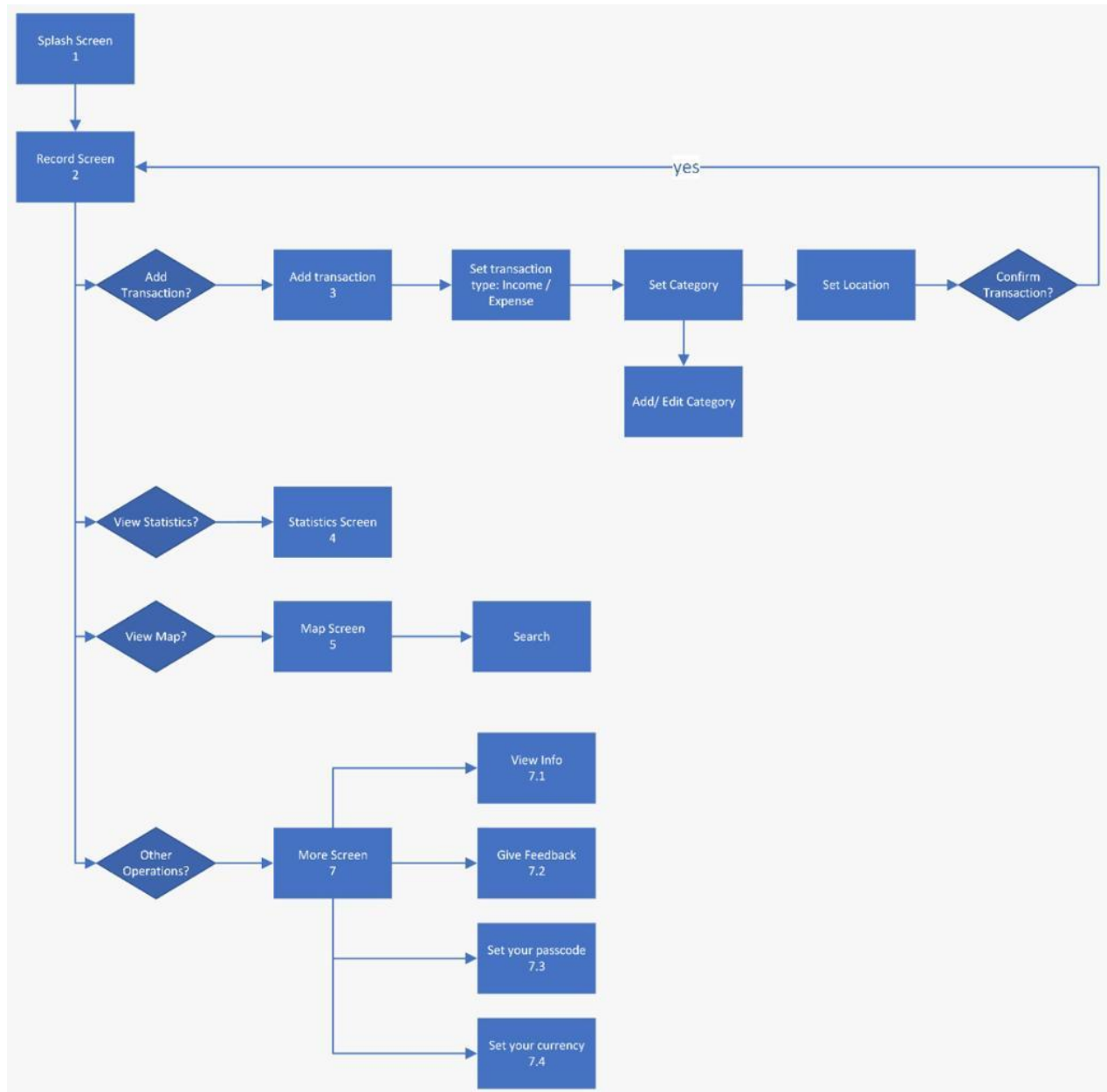
## **1.3 Technologies/ Tools**

- iOS stimulator
- Adobe XD
- Visio
- GitHub

## **1.4 Third party libraries**

- Charts

## 2. BLOCK DIAGRAM



### 3. FUNCTIONAL REQUIREMENT

#### 3.1 Splash screen

**Purpose:** The first screen that is shown to the user while opening penny app

3.1.1 App name

3.1.2 App icon

3.1.3 Caption

#### 3.2 Record Screen

**Purpose:** A screen listing all the income and expense records.

3.2.1 Transaction

3.2.1.1 Transaction date

3.2.1.2 Transaction time

3.2.1.3 Type

3.2.1.4 Category

3.2.1.5 Amount

3.2.1.6 Note

3.2.2 Daily/Monthly / Weekly transaction view

3.2.3 Income

3.2.4 Expense

3.2.5 Balance

#### 3.3 Add/Edit Transaction

**Purpose:** Income and Expense tabs for user to add/edit transaction

3.3.1 Income

3.3.1.1 Current date and time - Required

3.3.1.2 Account - Required

3.3.1.3 Category of transaction-Required

3.3.1.4 Amount of transaction - Required

3.3.1.5 Note about transaction - Required

3.3.2 Expense

- 3.3.2.1 Current date and time- Required
- 3.3.2.2 Account – Required
- 3.3.2.3 Category of transaction-Required
- 3.3.2.4 Amount of transaction- Required
- 3.3.2.5 Note about transaction - Required
- 3.3.3 Add/edit transaction
- 3.3.4 Delete transaction

### 3.4 Category Screen

**Purpose:** The Categories are listed for the user to add the income or expense

- 3.4.1 Add button – To add new categories
- 3.4.2 List of all available categories

### 3.5 Add/Edit Category Screen

**Purpose:** New categories are added or existing categories are updated for recording the income or income of the user.

- 3.5.1 New Category – Text box for entering the name of the category – mandatory.
- 3.5.2 Add button – To add the entered category to the list.
- 3.5.3 List of all existing categories for updating.

### 3.6 Statistics Screen

**Purpose:** Graphical representation of records. Options to see weekly and monthly representations of transactions with respect to user accounts

- 3.6.1 Graph
  - 3.6.1.1 Monthly/weekly

### 3.7 Map Screen

**Purpose:** List the income/expense of the use in Map

- 3.7.1 Map
  - 3.7.1.1 Search for a location

### 3.6 More Screen

**Purpose:** Additional settings for the application.

#### 3.6.1 View Info

**Purpose:** Information about the application

3.6.1.1 Icon of the app

3.6.1.2 App name and version

3.6.1.3 Text box containing the app information

3.6.1.4 List of developers

#### 3.6.2 Feedback

**Purpose:** Send feedback about the app.

3.6.2.1 To address – default mail ids

3.6.2.2 Mail subject – Text box

3.6.2.3 Mail content – Text box for feedback

3.6.2.4 Send button

#### 3.6.3 Optional passcode

**Purpose:** Set your passcode to secure app access.

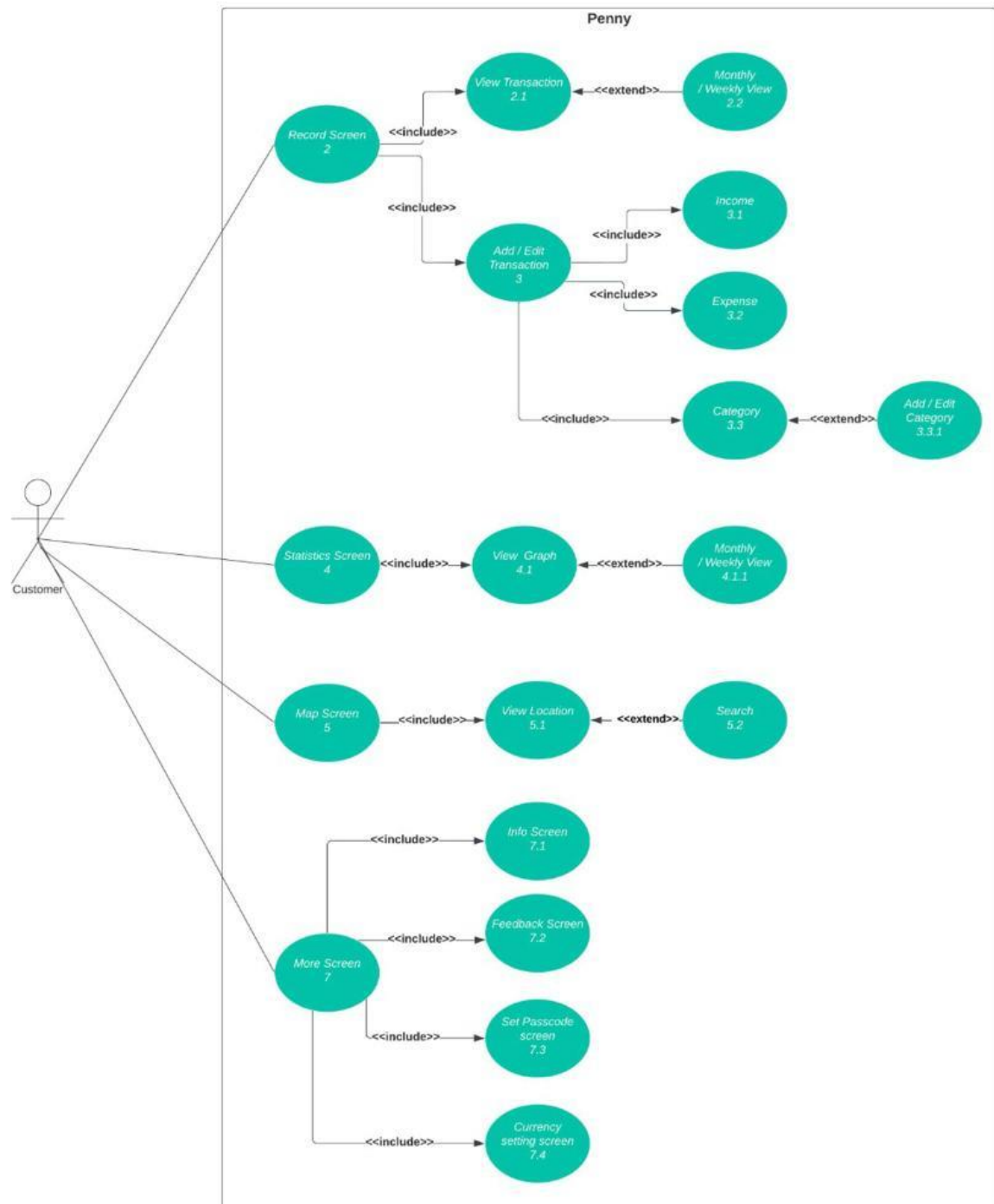
3.6.3.1 Face Id

#### 3.6.4 Main currency setting

**Purpose:** Set your currency

3.6.4.1 List of currencies

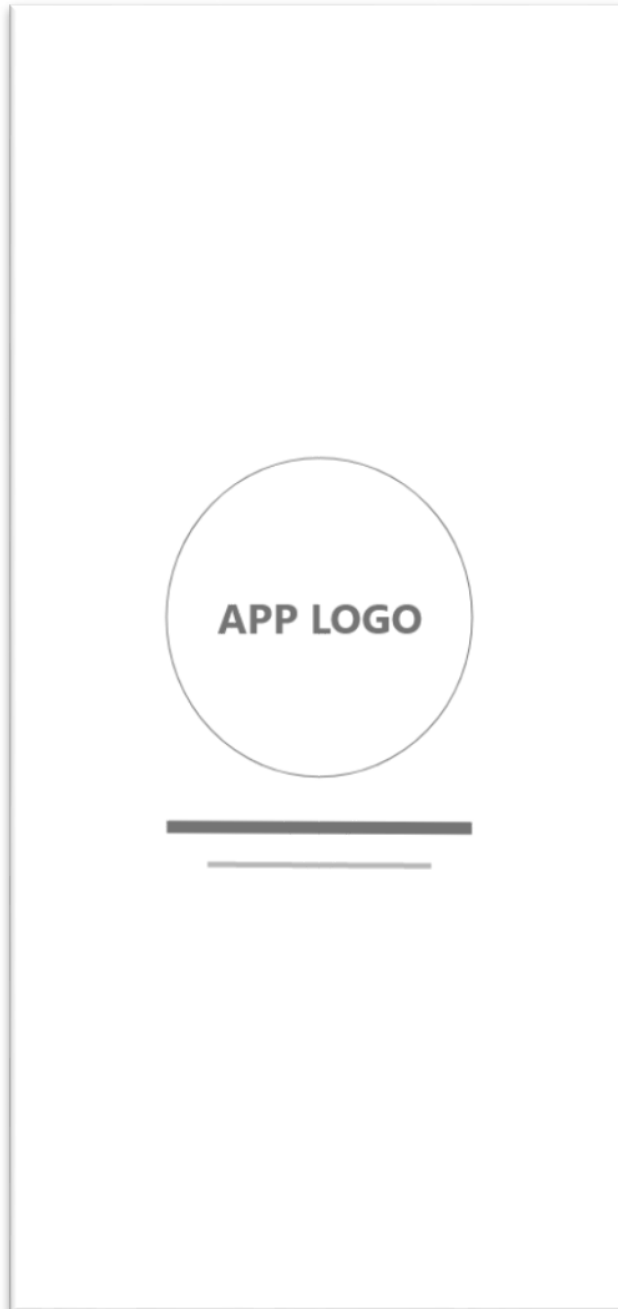
## 4 USE CASE DIAGRAM





## 5 WIREFRAMES

### 5.1 Splash Screen



5.2 Record Screen

TRANSACTION

Daily

Weekly

Monthly

Income

Expenses

Total

\$100

\$50

\$50

26

13:20

26

12:00

26

11:00

26

10:00

26

09:00

+

Records

Statists

Accounts

More

### 5.3 Add/ Edit Transaction Screen

<

EXPENSE

Income

Expense

Date

Title

Category

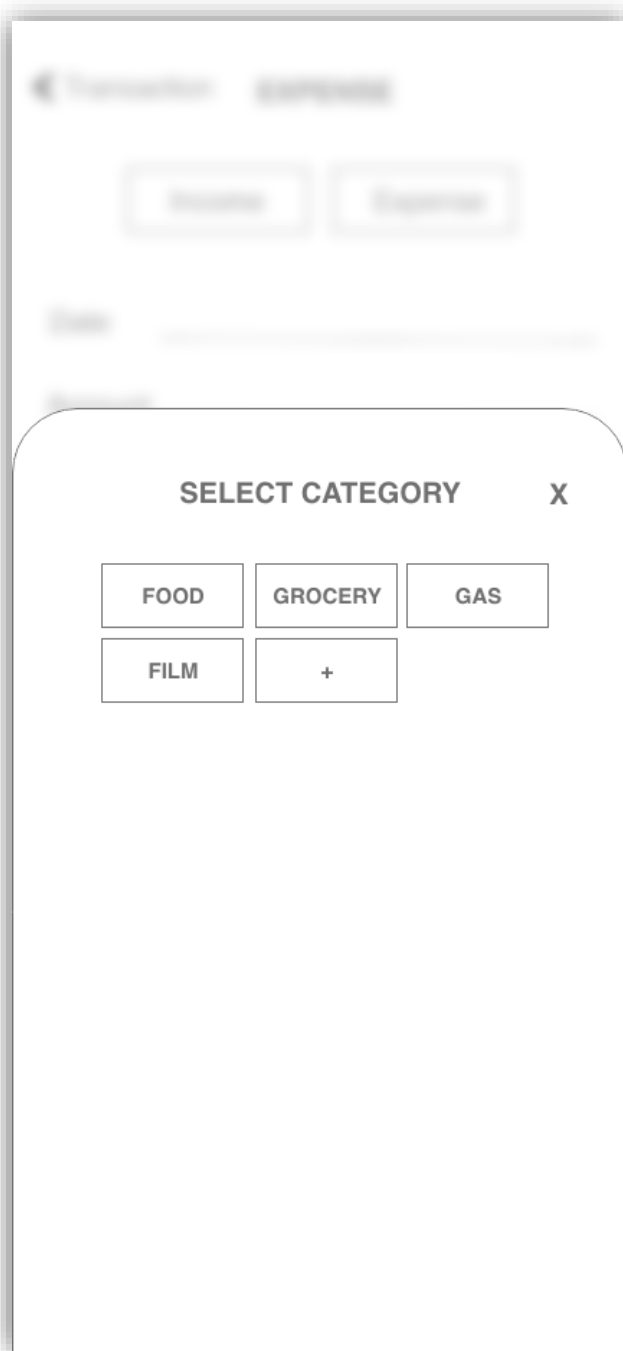
Amount

Note

Location

Add

## 5.4 Add/ Edit Category



## ADD / EDIT CATEGORY

New Category

Add

Edit

Edit

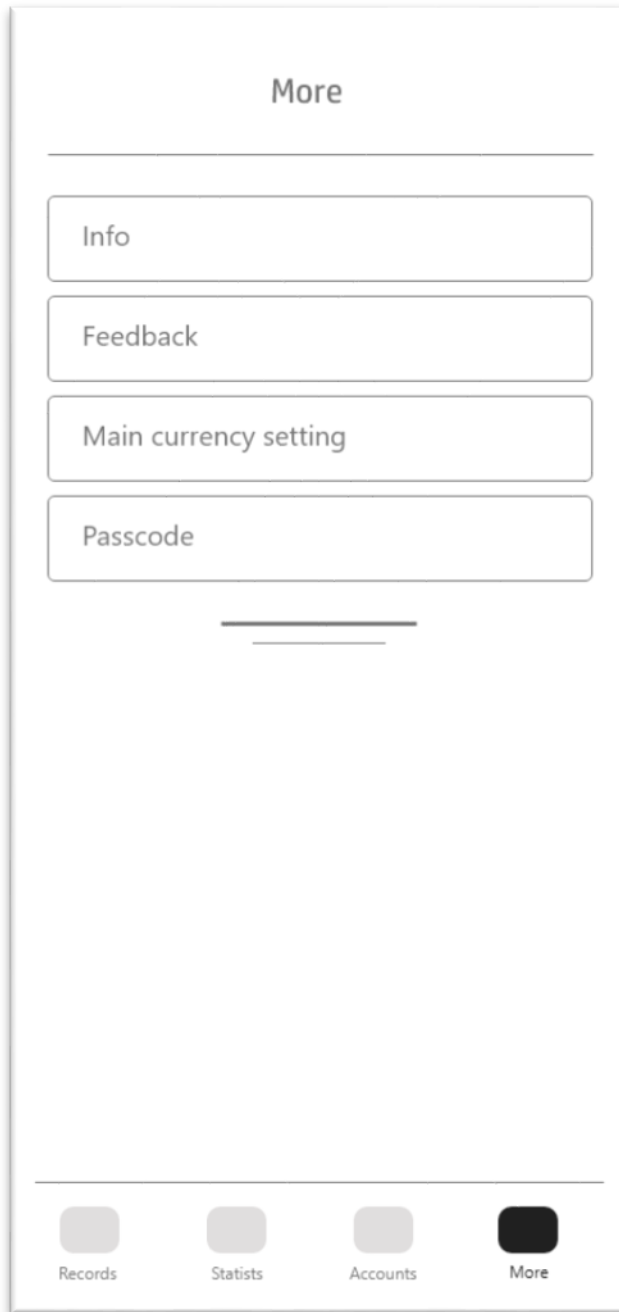
## 5.5 Statistics Screen



## 5.6 Map Screen



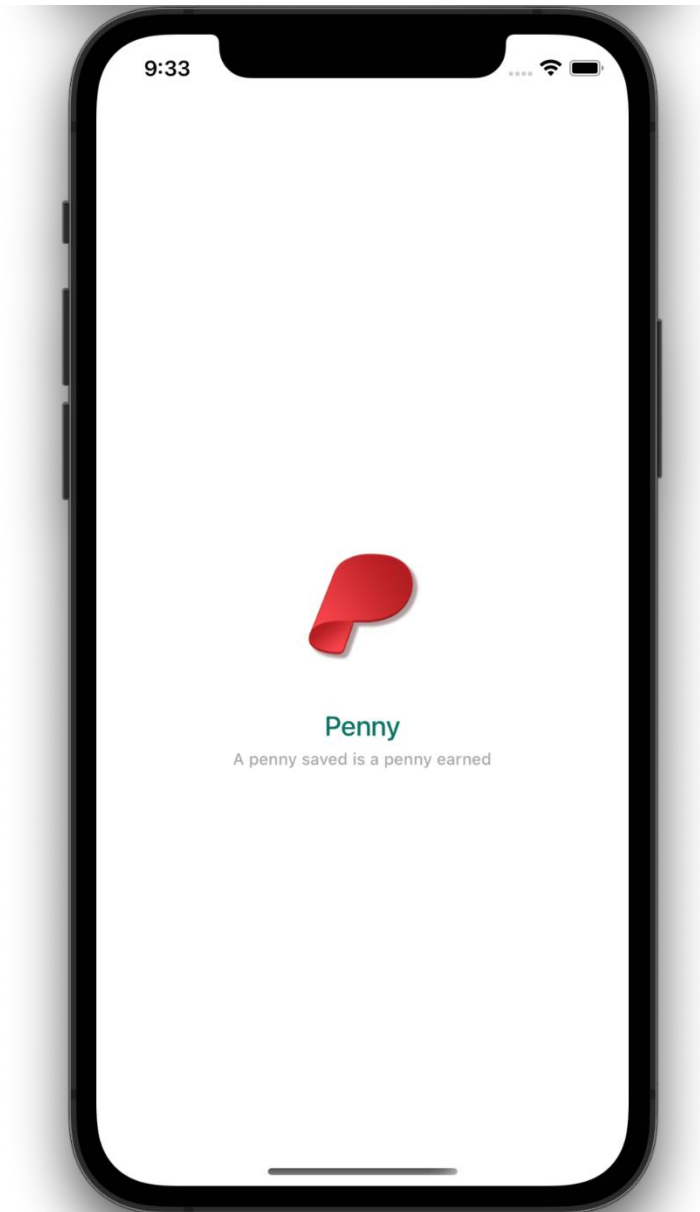
## 5.7 More Screen





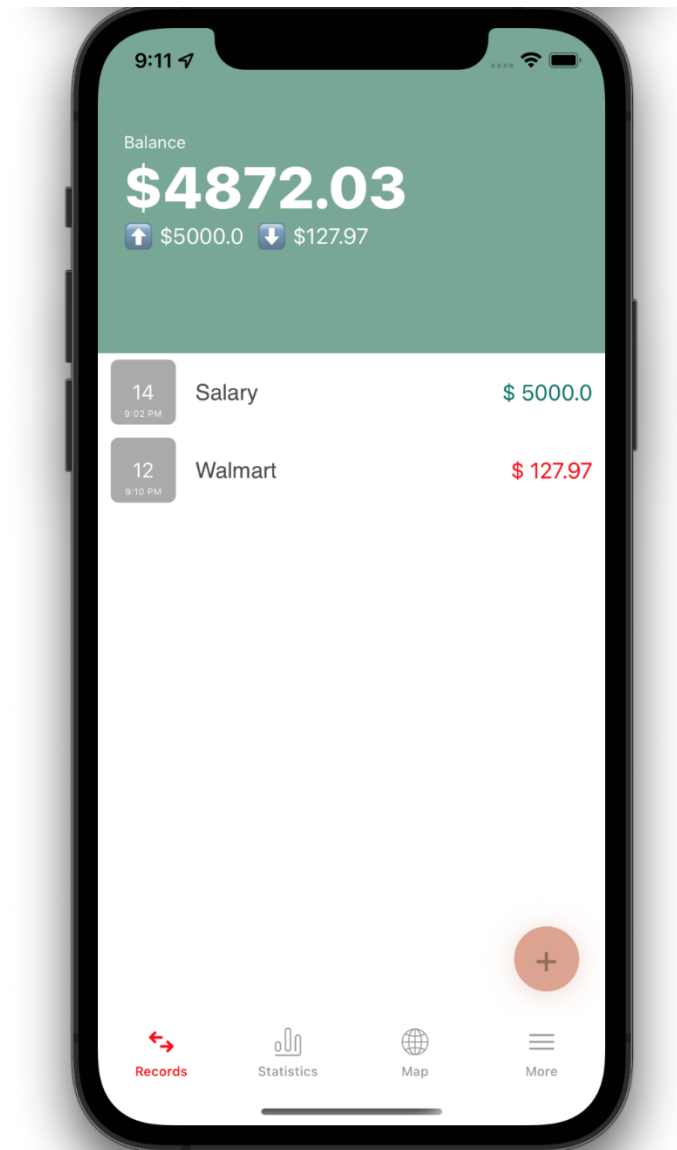
## 6 SCREENS EXPLANATION

### 6.1 Splash Screen



- Screen displayed while launching the application.
- It contains logo, name and the caption about the company.

## 6.2 Record Screen



- This screen shows all the transaction records to the user, both income(green) and expense (red).
- The transaction record contains date, time, name of transaction and amount.
- On top of the screen, it will display total balance, income, and expense.
- There is an add button which will allow user to add a transaction.

### 6.3 Add/ Edit Transaction Screen

This page allows users to add transactions (Expense/Income). This page contains input fields:

- **Date and Time:** User can choose date and time of each transaction. It is a required field. If the user misses to select date and time, an alert will be displayed on the screen.
- **Title:** User can add title for the transaction. It is a required field. If the user misses to add title, an alert will be displayed on the screen.
- **Category:** User can select a category from a list of categories. It is a required field. If the user misses to add this, an alert will be displayed on the screen.
- **Amount:** User can enter the amount of transaction. It is an Optional field.
- **Note:** User can add any notes related to the transaction. It is an Optional field.
- **Get location:** A button is provided for the user to get address of the current location, where they did the transaction. It is an Optional field.

9:04

< Back

### Add Expense

Income Expense

Date Aug 14, 2022 9:02 PM

Title Salary

Amount 5000.0

Category Salary

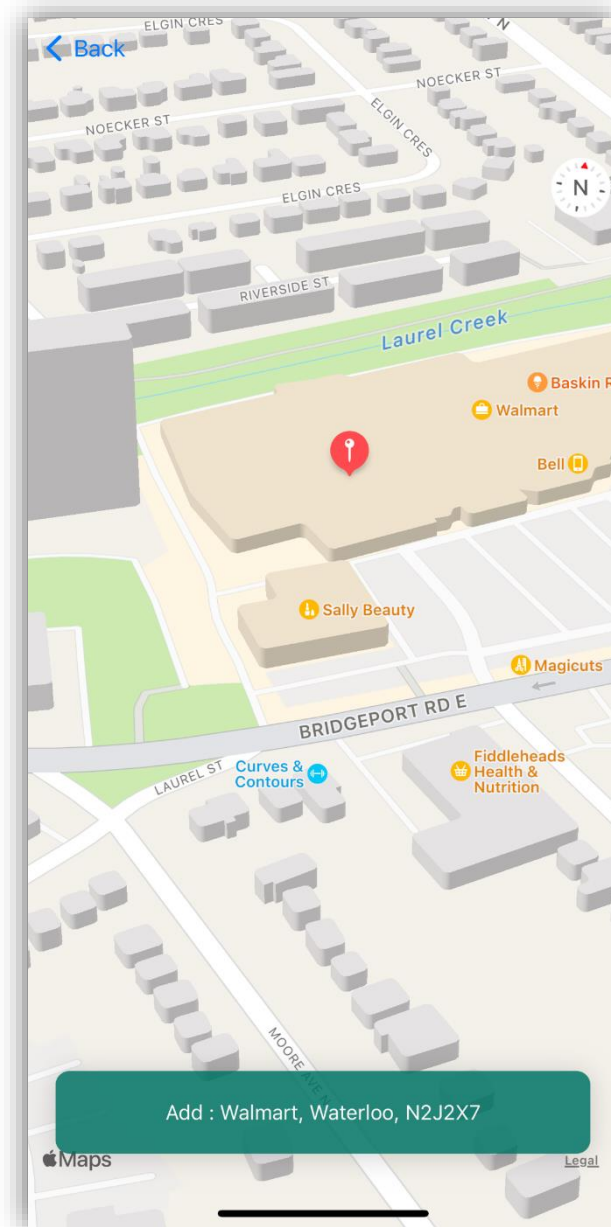
Note Company

Location [Get Location](#) [Set Location](#)

Current location: 3465 Lavender Hill Road, Dunedin,

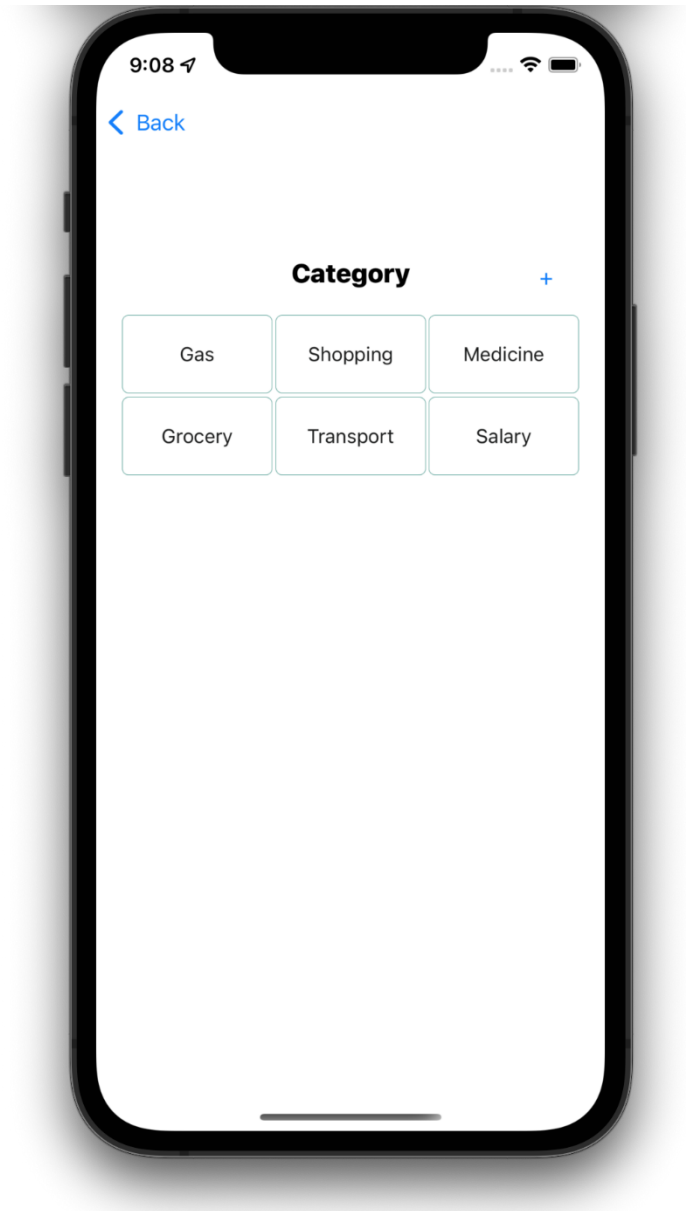
Add Record

- **Set location:** A button is provided for the users to set the location from the map, where they did the transaction. It is an Optional field.

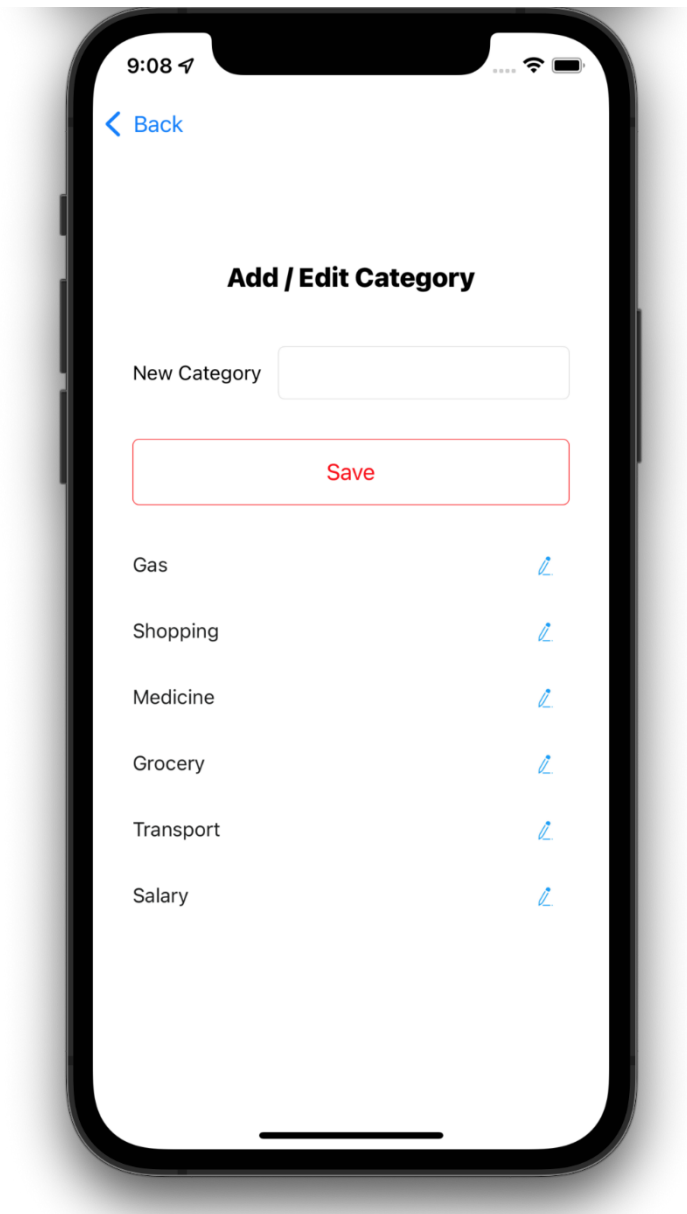


After entering the above inputs user can click Add transaction button for storing these data to the database.

## 6.4 Add/ Edit Category Screen



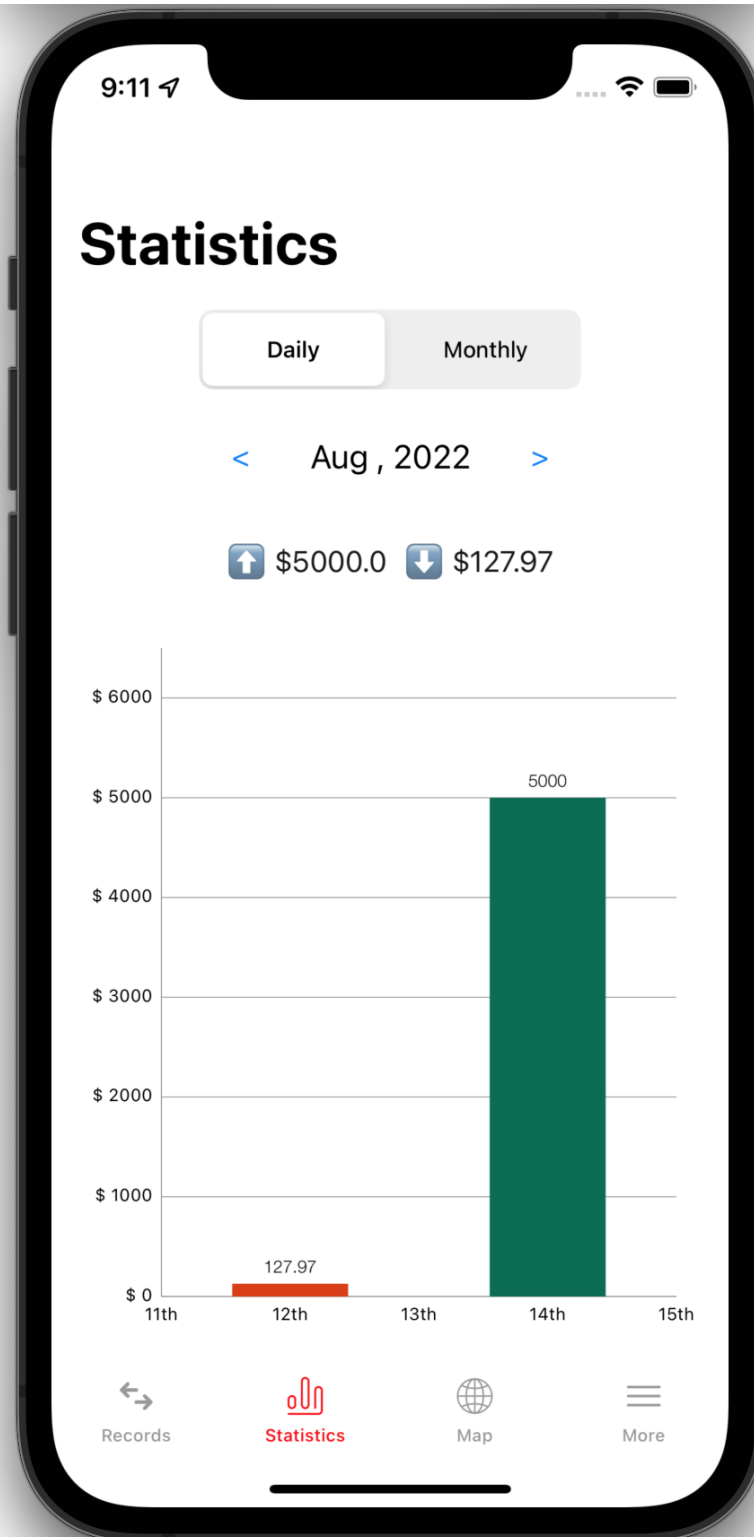
- We can choose category from the category page
- There is an option to add category. User can click the plus icon to add category



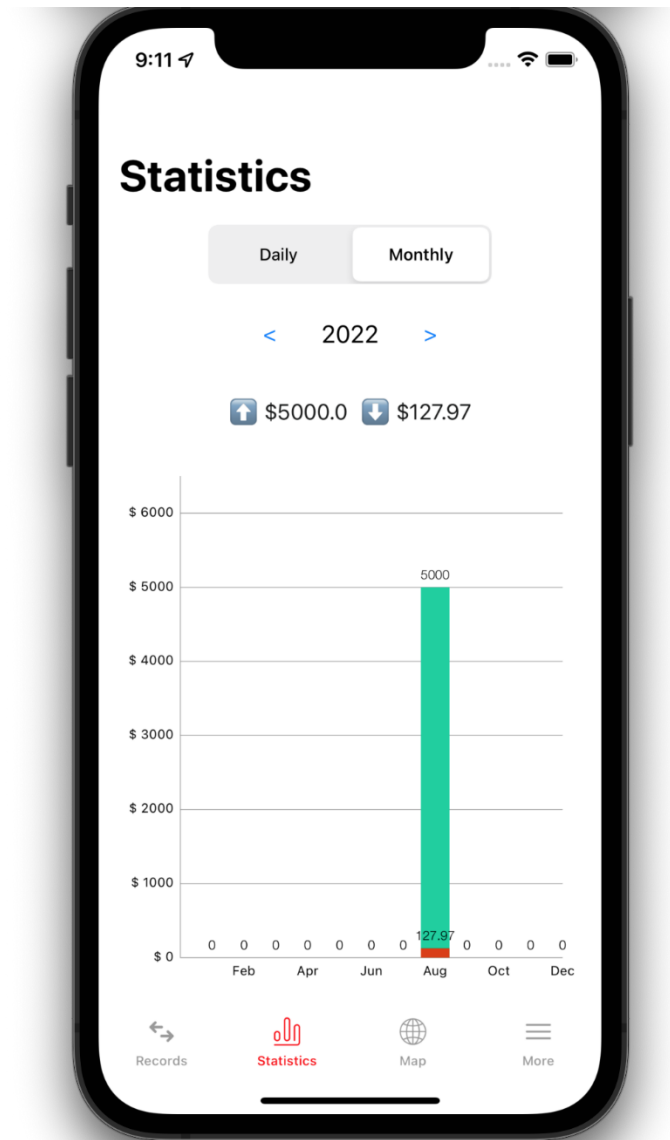
- User can enter a new category and click save button to add a category.
- User can click the edit button to edit an existing category and click the save button to save the edited category.

## 6.5 Statistics Screen

### a. Daily Statistics



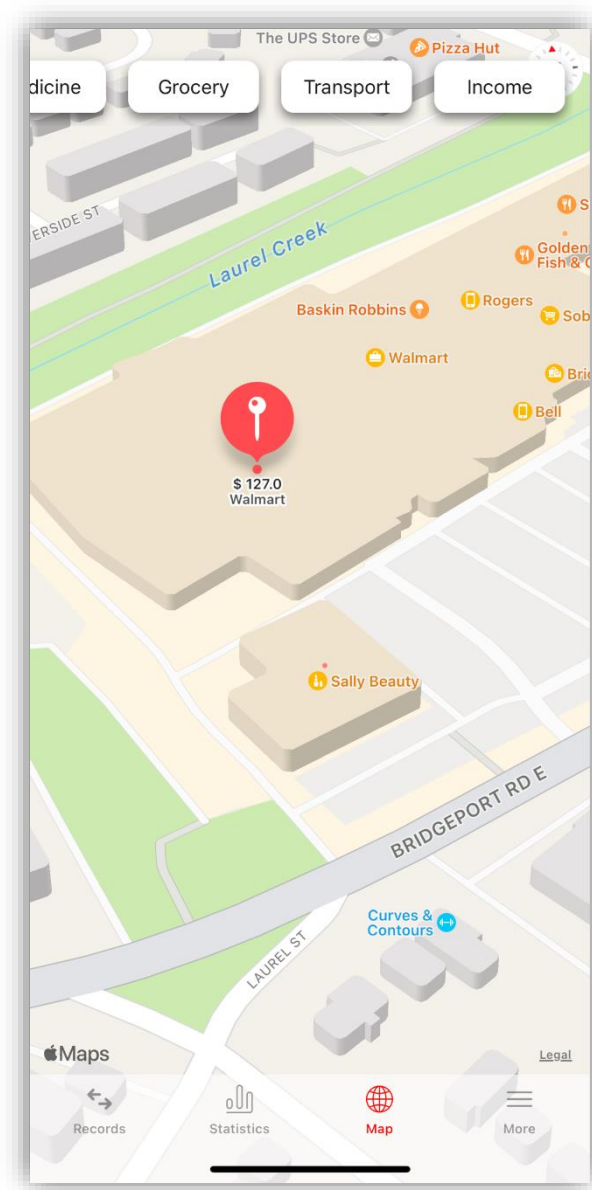
## b. Monthly Statistics



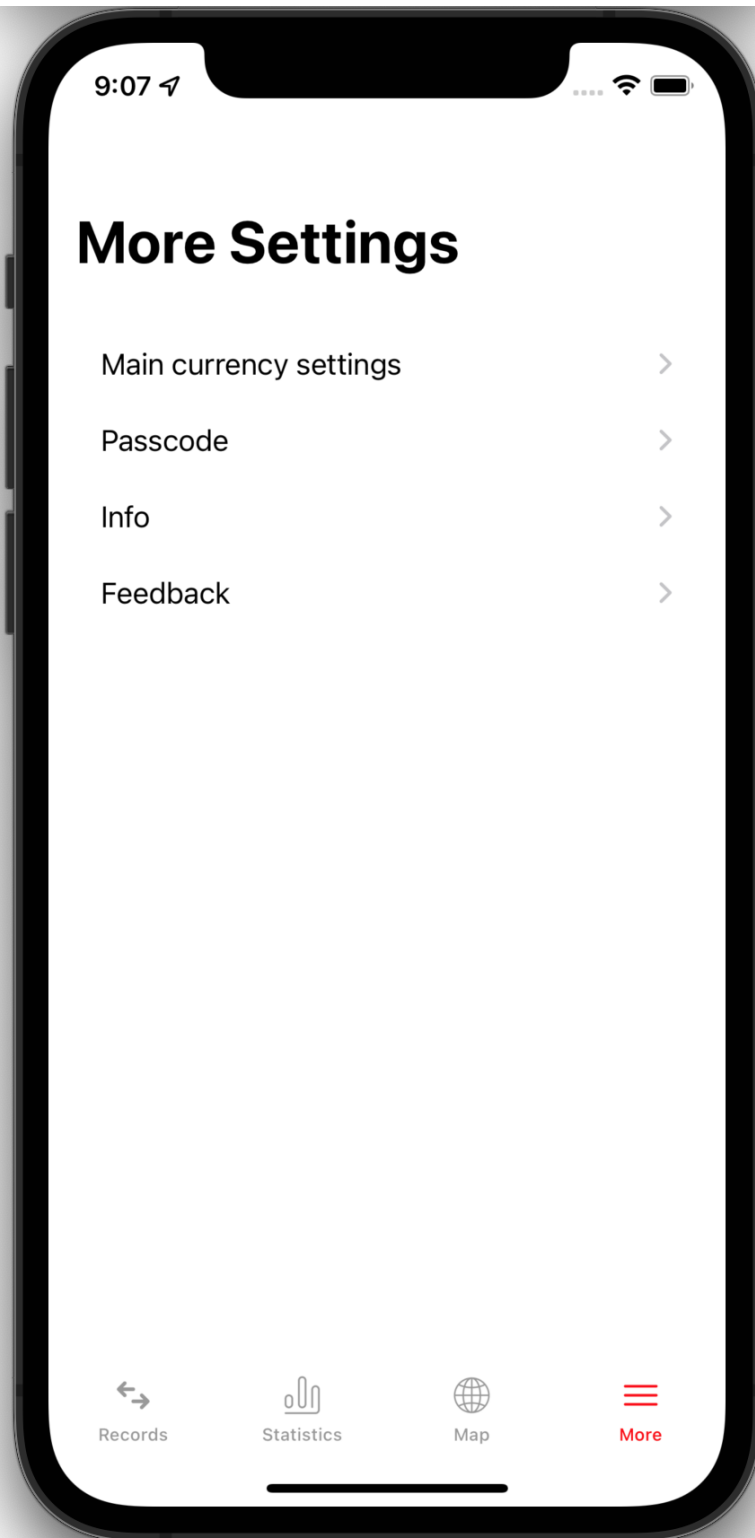
- This page provides the graphical representation of the transactions.
- The green color in the bar graph indicates the income and the red color indicates the expenses.
- The user can view the graph in two ways - monthly and daily.
- The system restricts the selection of future dates while viewing the data.



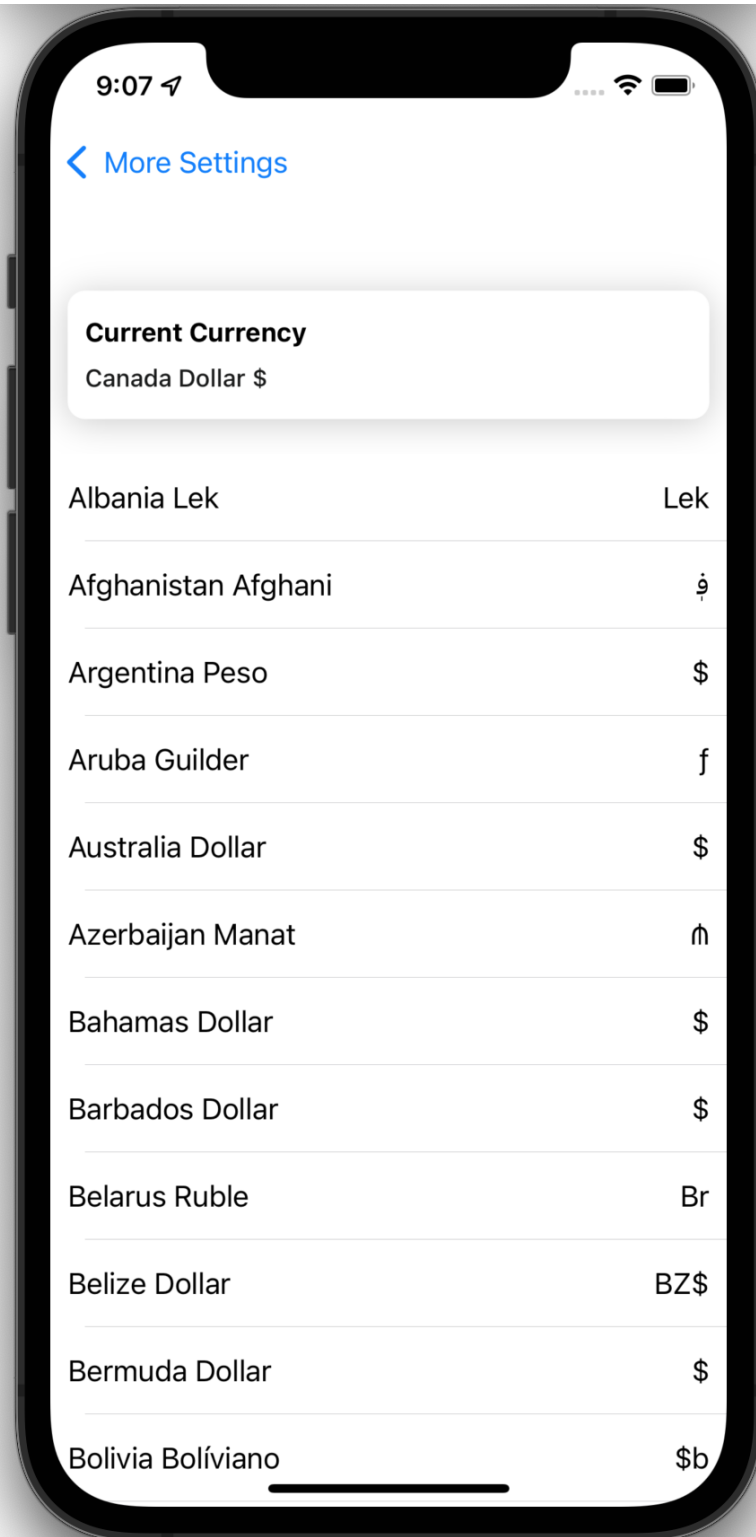
## 6.6 Map Screen



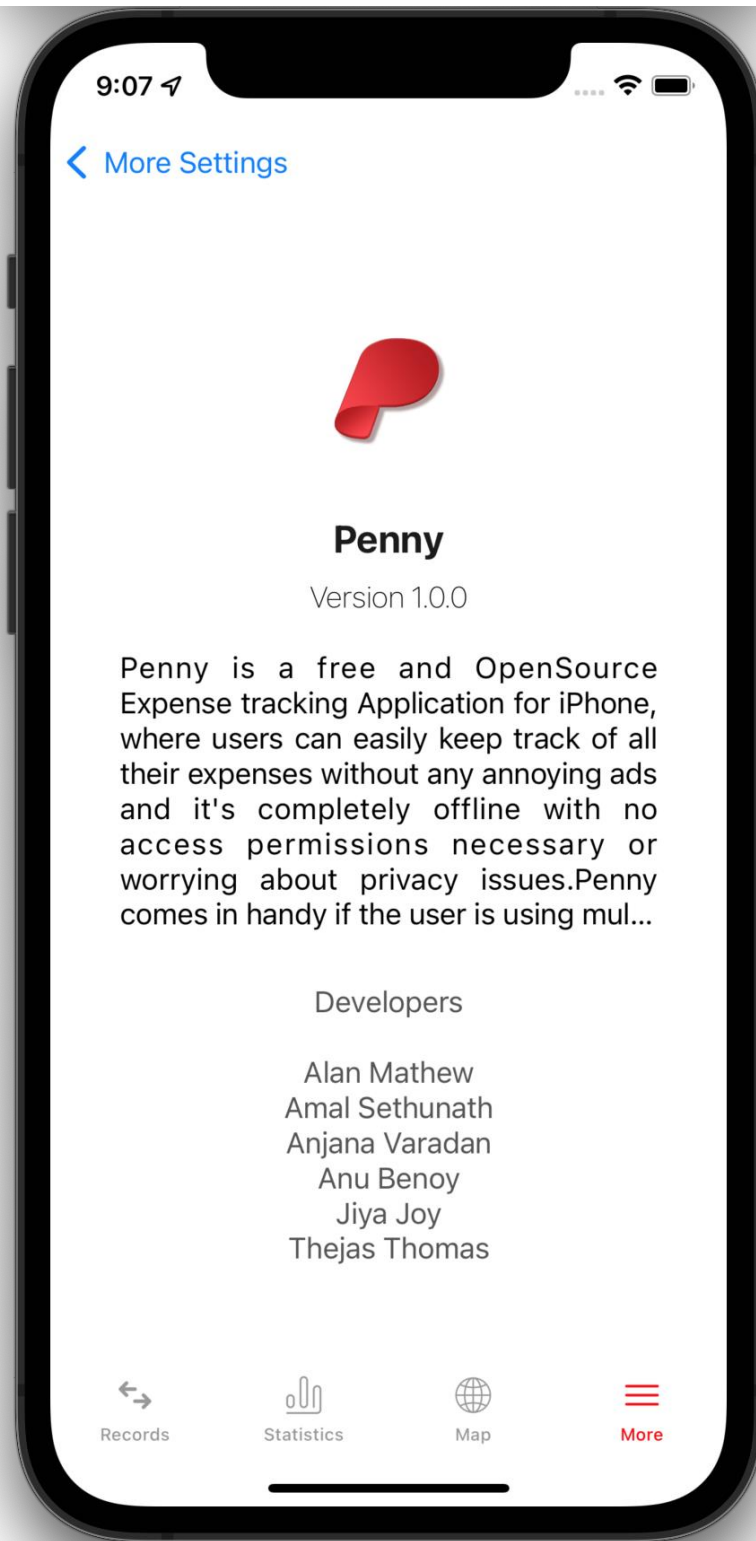
- The map page shows location of income and expense recorded.
- All the transaction whose location is set will be shown in the map.
- For each location there will be a title(amount) and subtitle (name of the transaction)
- We can filter based on the category selected shown on the top of the screen.



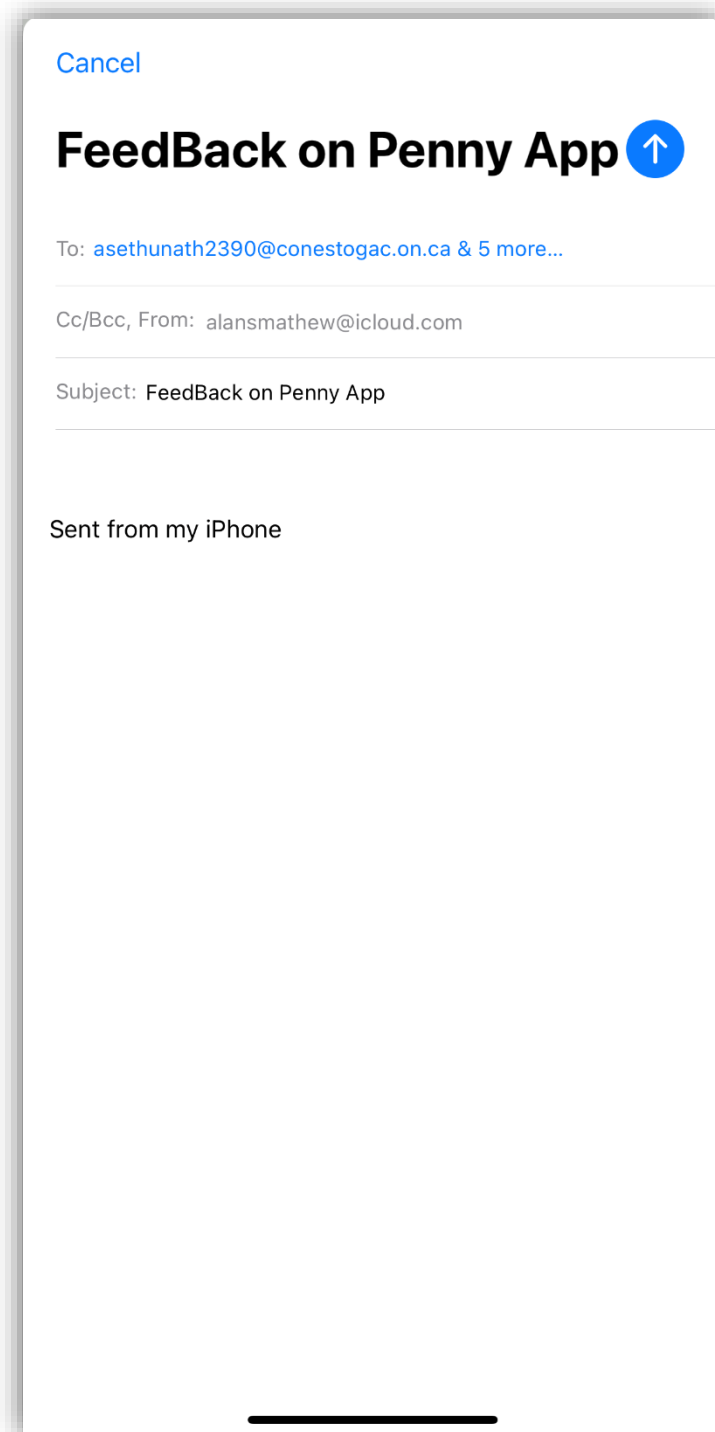
- **Main Currency Screen:** Allows the user to select different currency across the world.



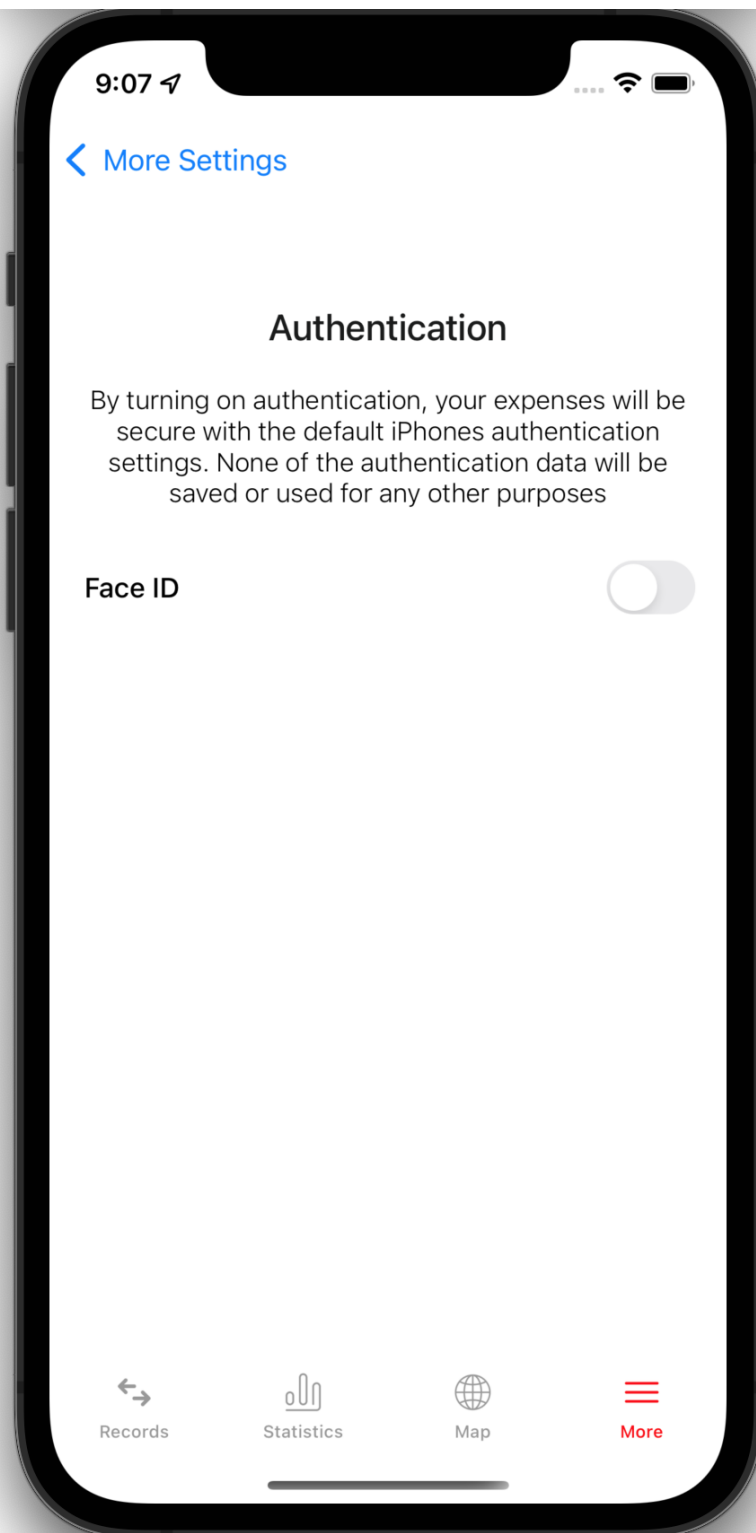
- **Info Screen:** Display information regarding the app and the name of all developers.



- **Feedback Screen:** Redirects the user to an email, where the user can send the mail to all developers.



- **Passcode:** There is a provision to enable Face ID for better security and privacy.



## 7 WORK ASSIGNMENT

- **Anjana Varadan** – Map View, UI/ UX.
- **Thejas Kunhemkerikalam Thomas** - Statistics page and Documentation.
- **Anu Benoy** - Category page and Add / Edit category, UI/ UX.
- **Amal Sethunath** - More page and Documentation.
- **Jiya Joy** - Add / Edit transactions and Documentation.
- **Alan Sebastian Mathew** - Records screen, UI/ UX, Code Structuring.