

Software Requirement Specification

for

Financial Goal Planner

Version 1

Prepared by Group 2

Syracuse University

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1. Introduction

1.1. Purpose

The purpose of this Software Requirements Specification (SRS) is to outline the software requirements for the Financial Goal Planner application. It serves as a roadmap for developers, directing them on how to implement necessary features. Additionally, it assists the testing team in creating suitable Verification and Validation (V&V) plans and procedures to prove to the customer that the system adheres to this specification.

1.2. Scope

This document specifies the requirements for the following capabilities.

1. Goal Planner, including user interface and data requirements.
2. Analytics capabilities
3. Expense Tracking
4. Financial Risk Monitoring and Alerting Capabilities

1.3. Definitions

Table 1 Acronyms and Definitions

BDD: Block Definition Diagram.

SRS: Software Requirements Specification.

UML: Unified Modeling Language.

V&V: Verification and Validation

1.4. References

1. IEEE Std 830-1998 - IEEE Recommended Practice for Software Requirements Specifications - Revision of IEEE Std 830-1993

1.5. References

This document follows the recommended format specified in IEEE Std 830-1998 IEEE Recommended Practice for Software Specifications. For Section 3, the specific template A.5 for organising information by feature is followed.

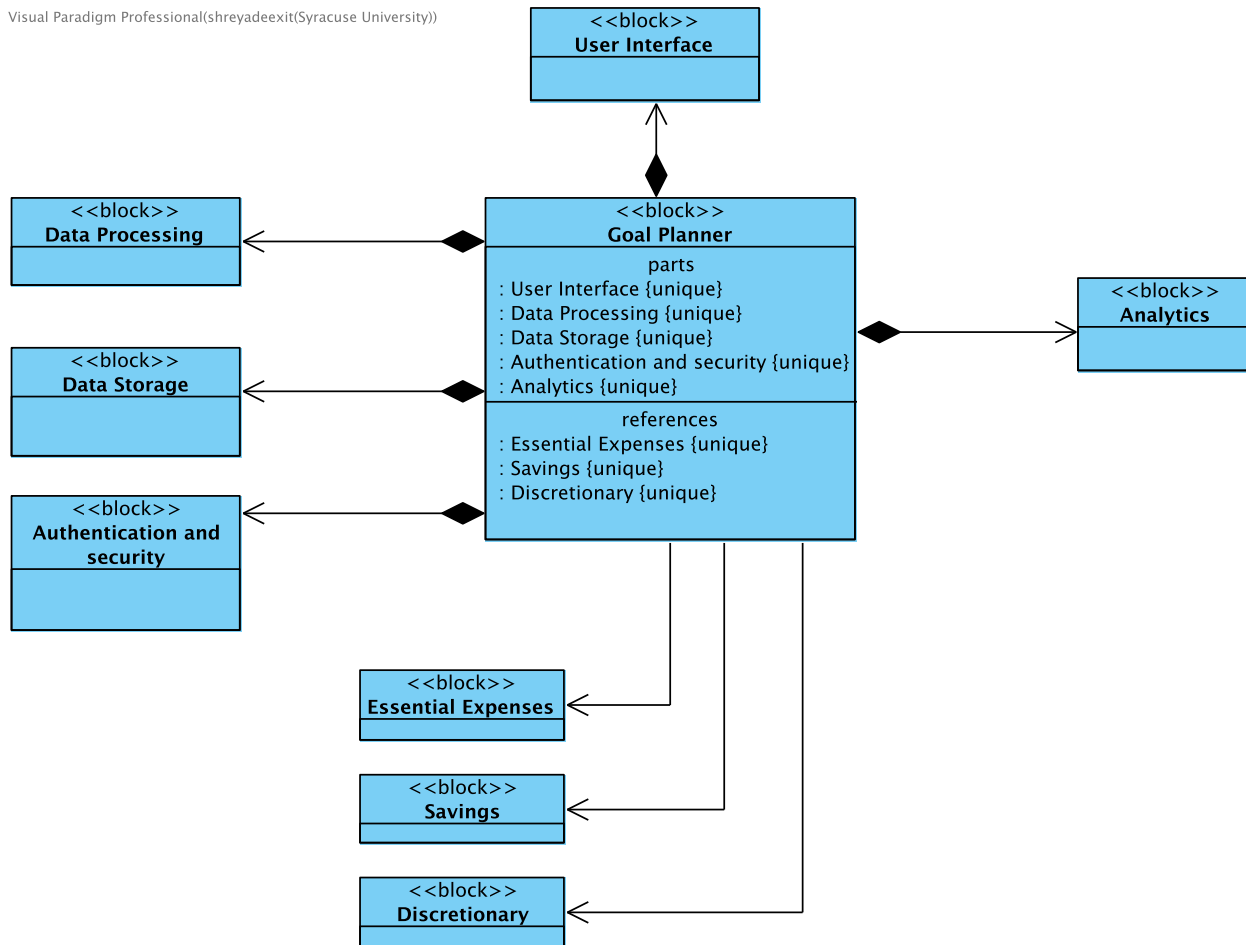
2. Overall Description

2.1. Product Perspective

The financial goal planner application serves as a personal finance assistant, providing a user-centric platform for individuals to set, manage, and track their financial goals. It integrates seamlessly into the user's financial ecosystem, offering features such as expense tracking, budget creation, investment monitoring, and customised financial recommendations. The application's intuitive interface is designed to encourage regular interaction, empowering users with real-time data and analytics to make informed financial decisions. By fostering financial literacy and offering tools for risk assessment and goal adjustment, the product positions itself as an indispensable resource for anyone looking to take control of their financial future.

2.1.1. Finanacial Goal Planner Block Definition Diagram

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Analytics

Analytics involves analyzing data to extract insights and inform decisions.

Authentication and security

Authentication and security are processes that verify the identity of users and protect data from unauthorized access.

Data Processing

The Data Processing block refers to the stage where input data is transformed or manipulated to meet the specifications or conditions defined in the behavior scenarios.

Data Storage

Data storage refers to the methods and technologies used to save and keep digital information for future retrieval and use.

Discretionary

Discretionary spending refers to non-essential expenses, such as entertainment, leisure, and luxury items.

Essential Expenses

Essential expenses are costs necessary for basic living, such as housing, food, healthcare, and transportation.

Goal Planner

Central to managing financial objectives, the Goal Planner facilitates users in setting, tracking, and analyzing monetary targets. It integrates with related features to ensure a comprehensive financial planning experience.

Savings

Savings refers to money set aside for future use or emergencies.

User Interface

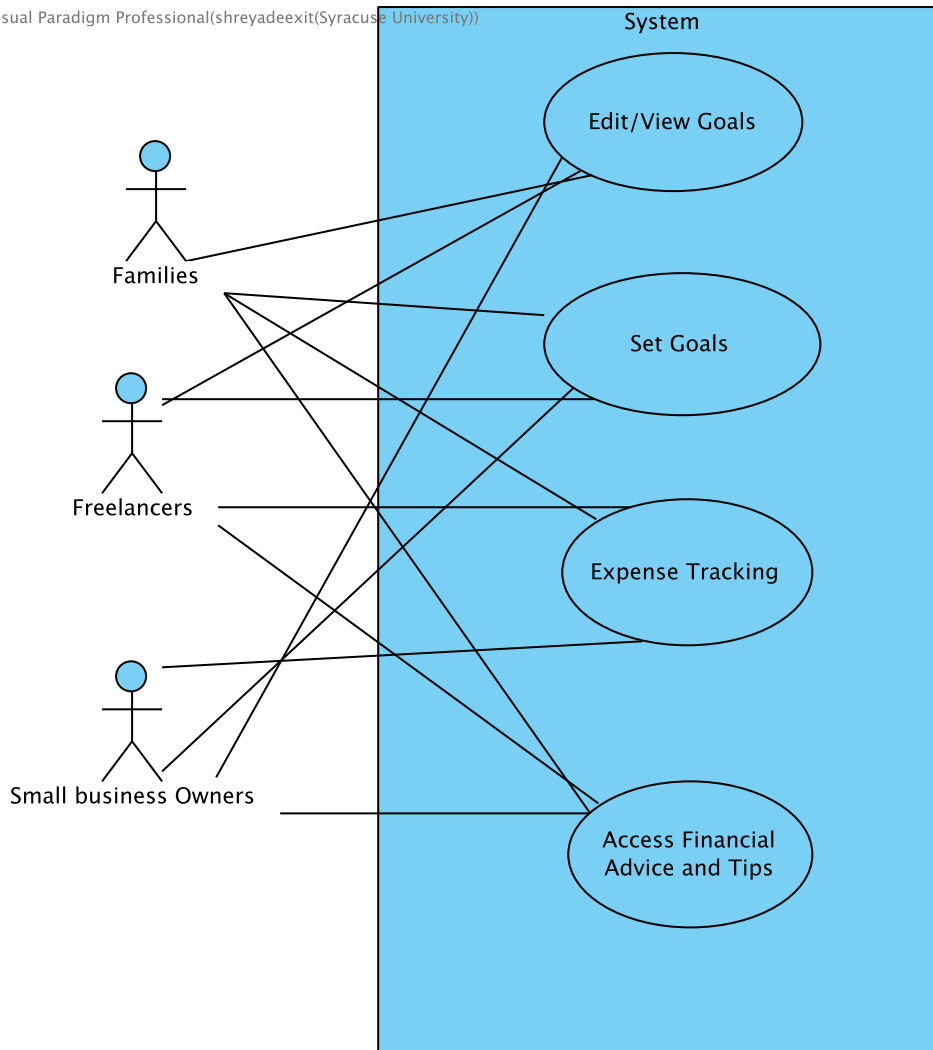
The User Interface (UI) is the part of a software that users interact with, consisting of visual elements like screens, buttons, and icons.

2.2. Product Functions

The below diagram depicts the use case diagram and users of the system, and the way they interact with the system.

2.2.1. Financial Goal Planner Use Cases

Visual Paradigm Professional(shreyadeexit(Syracuse University))



2.3. Use case Descriptions

👤 2.3.1. Families

ID: AC01

The "Families" actor represents a group of users with familial relationships in the financial goal planner app. It facilitates collaborative financial planning, enabling shared goal setting, tracking, and decision-making. This actor ensures a personalized and user-friendly experience tailored to family-oriented financial objectives.

👤 2.3.2. Freelancers

ID: AC03

The "Freelancers" actor represents independent users in the financial goal planner app, facilitating personalized goal setting and tracking for their unique financial objectives.

2.3.3. Small business Owners

ID: AC02

The "Small Business Owners" actor streamlines personalized financial planning in the app, facilitating goal setting and tracking tailored to their unique business objectives.

2.3.4. Access Financial Advice and Tips

ID: UC04

The system provides users with financial advice, tips and access to a comprehensive library of financial education resources, including articles, videos, tutorials.

2.3.5. Edit/View Goals

ID: UC03

Users can add, edit, or delete details related to a specific financial goal, including the target amount, target date, and any additional notes.

2.3.6. Expense Tracking

ID: UC02

Users can input and categorize their expenses, allowing the app to provide insights into spending habits and identify potential areas for saving.

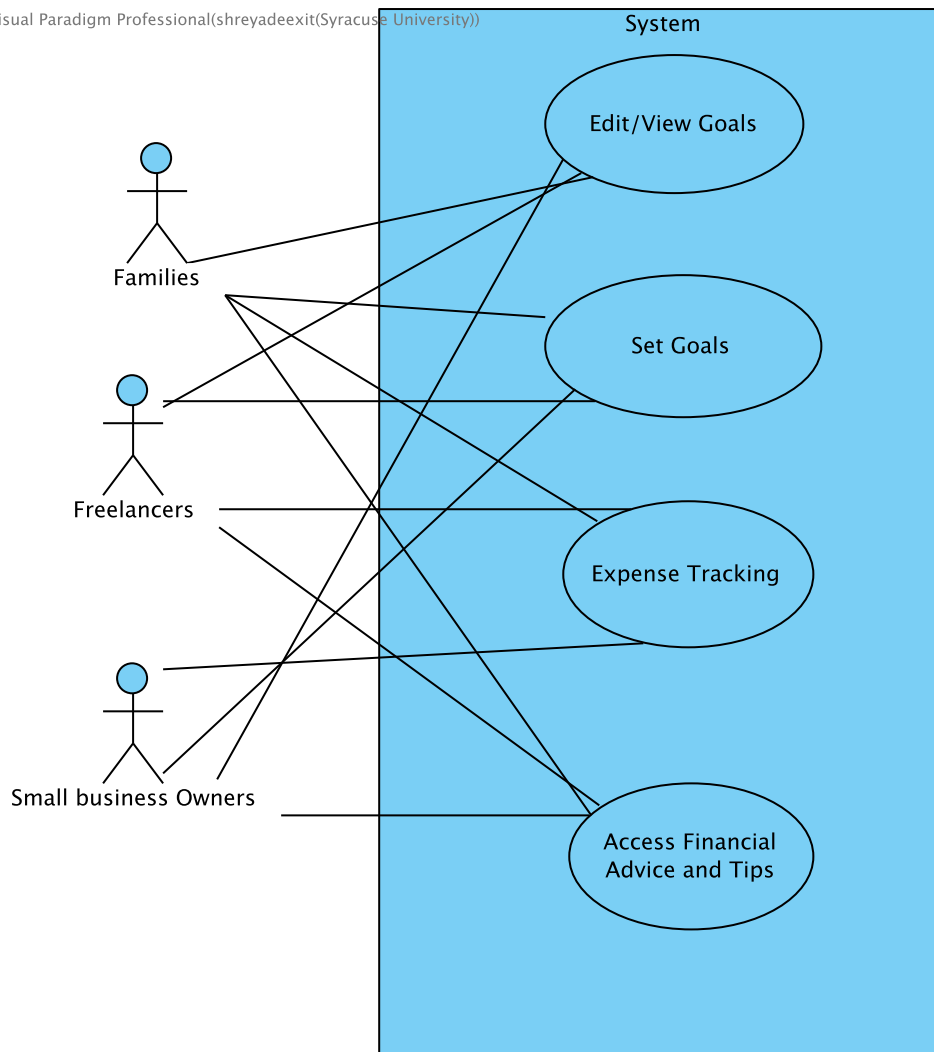
2.3.7. Set Goals

ID: UC01

Users can express their financial aspirations for the year in a way that feels uniquely personal. By inputting their goals, individuals can create a tailored roadmap, whether it's saving for a dream vacation, investing in future plans, or managing debt, bringing a stability to their financial journey.

2.3.8. Financial Goal Planner Use Cases

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● Access Financial Advice and Tips

ID: UC04

The system provides users with financial advice, tips and access to a comprehensive library of financial education resources, including articles, videos, tutorials.

Primary Actors

👤 Families, 👤 Freelancers, 👤 Small business Owners

Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	Users can correctly navigate to the financial education resources.
Post-conditions	Users have enriched their financial knowledge by accessing and engaging with educational content from the resource library.
Author	N/A
Assumptions	N/A

Scenarios

Scenario

1. This is a scenario when a user navigates to the financial advice section within the app.
2. Users explore the comprehensive library containing articles, videos, and tutorials.
3. Users choose a specific financial topic of interest within the resource library.
4. Users access and view articles, videos, or tutorials related to their selected topic.

Requirements

Presentation Of Advice

ID: UC04.REQ010

Progress Tracking

ID: UC04.REQ011

User Authentication

ID: UC04.REQ007

Relationships

Relationship	From	To
 unnamed	 Access Financial Advice and Tips	 User Authentication
 unnamed	 Access Financial Advice and Tips	 Presentation of Advice
 unnamed	 Access Financial Advice and Tips	 Progress Tracking
 unnamed	 Families	 Access Financial Advice and Tips
 unnamed	 Freelancers	 Access Financial Advice and Tips
 unnamed	 Small business Owners	 Access Financial Advice and Tips

Edit/View Goals

ID: UC03

Users can add, edit, or delete details related to a specific financial goal, including the target amount, target date, and any additional notes.

Primary Actors

 [Families](#),  [Freelancers](#),  [Small business Owners](#)

Details

Level	N/A
-------	-----

Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	The user must be successfully logged into the financial goal planner app and should have at least one established financial goal within their account.
Post-conditions	The selected financial goal's details, such as target amount, target date, and notes, are successfully updated based on the user's modifications. The system generates a confirmation message indicating that the goal details have been successfully edited and saved.
Author	N/A
Assumptions	N/A

Scenarios

Scenario

1. Initiate Goal Modification: User selects "Edit Goal" to modify financial goal details.
2. Select Goal: User picks a specific financial goal from their list.
3. Modify and Save: User updates target amount, date, or notes, then saves changes, confirming the updated goal details.

Requirements

Access Historical Data

ID: UC03.REQ004

Comprehensive Viewong

ID: UC03.REQ005

Customizable Views

ID: UC03.REQ006

User Authentication

ID: UC03.REQ007

Relationships

Relationship	From	To
 unnamed	 Edit/View Goals	 Access Historical Data
 unnamed	 Edit/View Goals	 Customizable Views
 unnamed	 Edit/View Goals	 Comprehensive Viewing
 unnamed	 Edit/View Goals	 User Authentication
 unnamed	 Freelancers	 Edit/View Goals
 unnamed	 Small business Owners	 Edit/View Goals
 unnamed	 Families	 Edit/View Goals

Expense Tracking

ID: UC02

Users can input and categorize their expenses, allowing the app to provide insights into spending habits and identify potential areas for saving.

Primary Actors

 [Families](#),  [Freelancers](#),  [Small business Owners](#)

Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	The user should have access to the expense tracking feature within the app
Post-conditions	The recorded expenses are successfully saved and can be viewed in the user's expense history. Budget alerts are triggered as per user-defined limits.
Author	N/A
Assumptions	N/A

Scenarios

Scenario

1. This scenario begins with user accesses the expense input feature.
2. User inputs expense details, assigns a category, and saves the record.
3. User views and analyzes past spending in the expense history.
4. User sets budgets for various expense categories.
5. User generates reports to gain insights into spending habits and identifies potential areas for saving.

Requirements

 *Expense History View*

ID: UC02.REQ009













 *Intuitive Expense Input*

ID: UC02.REQ008

 *User Authentication*

ID: UC02.REQ007

Relationships

Relationship	From	To
 Unnamed	 Expense Tracking	 User Authentication
 Unnamed	 Expense Tracking	 Intuitive Expense Input
 Unnamed	 Expense Tracking	 Expense History View
 unnamed	 Families	 Expense Tracking

Relationship	From	To
—unnamed	 Freelancers	 Expense Tracking
—unnamed	 Small business Owners	 Expense Tracking

Families









ID: AC01

The "Families" actor represents a group of users with familial relationships in the financial goal planner app. It facilitates collaborative financial planning, enabling shared goal setting, tracking, and decision-making. This actor ensures a personalized and user-friendly experience tailored to family-oriented financial objectives.

Properties

Abstract	false
Leaf	false
Root	false

Relationships

Relationship	From	To
—unnamed	 Families	 Set Goals
—unnamed	 Families	 Expense Tracking
—unnamed	 Families	 Edit/View Goals
—unnamed	 Families	 Access Financial Advice and Tips

Freelancers

ID: AC03

The "Freelancers" actor represents independent users in the financial goal planner app, facilitating personalized goal setting and tracking for their unique financial objectives.

Properties

Abstract	false
Leaf	false
Root	false

Relationships

Relationship	From	To
—unnamed	 Freelancers	 Set Goals
—unnamed	 Freelancers	 Edit/View Goals
—unnamed	 Freelancers	 Expense Tracking

Relationship	From	To
— unnamed	 Freelancers	 Access Financial Advice and Tips

Set Goals

ID: UC01

Users can express their financial aspirations for the year in a way that feels uniquely personal. By inputting their goals, individuals can create a tailored roadmap, whether it's saving for a dream vacation, investing in future plans, or managing debt, bringing a stability to their financial journey.

Primary Actors

 [Families](#),  [Freelancers](#),  [Small business Owners](#)

Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	The login system is working correctly and the user is able to navigate to set goals section
Post-conditions	The customer is able to set goals and view it
Author	N/A
Assumptions	N/A

Scenarios

Scenario

1. This scenario begins when a new users register or log in to the Financial Goal Planner app.
2. Upon logging in, users are directed to the dashboard, where they can access various features.
3. Users initiate the goal-setting process by selecting the "Set Financial Goals" option from the dashboard.
4. Users are presented with predefined goal categories (e.g., Savings, Investments, Debt Reduction).
5. For each selected category, users input specific details such as the target amount, description, and due date.
6. Users may access the Financial Education Hub for additional resources and insights related to their set goals.

Requirements

Collaborative Goal Setting

ID: UC01.REQ003

Goal Categories

ID: UC01.REQ002

Goal Creation

ID: UC01.REQ001

User Authentication

ID: UC01.REQ007

Relationships

Relationship	From	To
 Unnamed	 Set Goals	 Goal Creation
 Unnamed	 Set Goals	 Goal Categories
 Unnamed	 Set Goals	 Collaborative Goal Setting
 Unnamed	 Set Goals	 User Authentication
 unnamed	 Families	 Set Goals
 unnamed	 Freelancers	 Set Goals
 unnamed	 Small business Owners	 Set Goals

Small business Owners

ID: AC02

The "Small Business Owners" actor streamlines personalized financial planning in the app, facilitating goal setting and tracking tailored to their unique business objectives.

Properties

Abstract	false
Leaf	false
Root	false

Relationships





Relationship	From	To
 unnamed	 Small business Owners	 Set Goals
 unnamed	 Small business Owners	 Edit/View Goals
 unnamed	 Small business Owners	 Expense Tracking
 unnamed	 Small business Owners	 Access Financial Advice and Tips

System

Properties

Abstract	false
Leaf	false
Root	false

Children Summary

Name	Description
 Access Financial Advice and Tips	The system provides users with financial advice, tips and access to a comprehensive library of financial education resources, including articles, videos, tutorials.
 Edit/View Goals	Users can add, edit, or delete details related to a specific financial goal, including the target amount, target date, and any additional notes.
 Expense Tracking	Users can input and categorize their expenses, allowing the app to provide insights into spending habits and identify potential areas for saving.
 Set Goals	Users can express their financial aspirations for the year in a way that feels uniquely personal. By inputting their goals, individuals can create a tailored roadmap, whether it's saving for a dream vacation, investing in future plans, or managing debt, bringing a stability to their financial journey.

2.4. User Characteristics

Refer to Use Case Diagram above and the descriptions of the Actors.

2.5. Constraints

These are defined specifically in Section 3

3. Specific Requirements

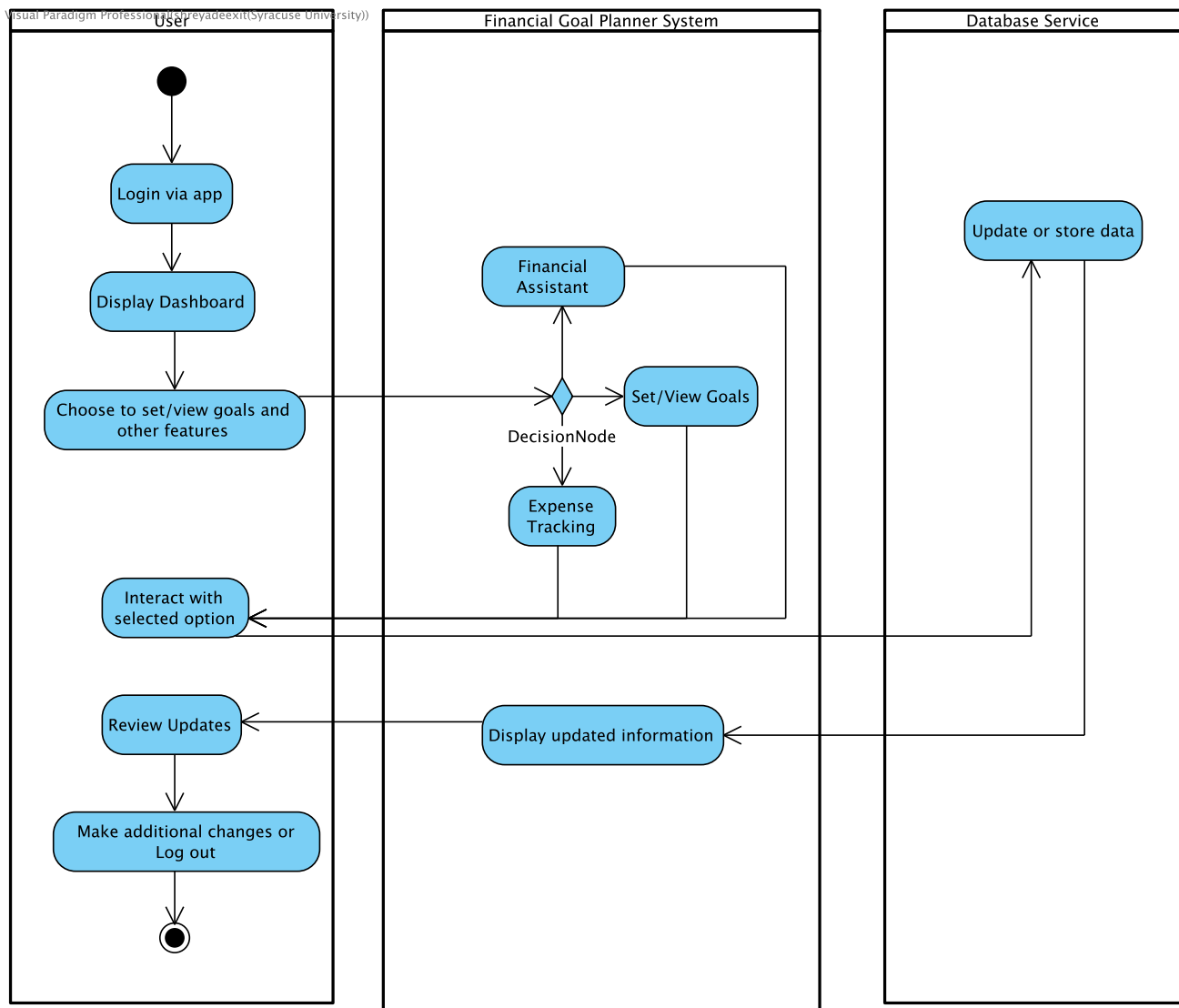
3.1. Overview

This financial goal planner app is designed to assist users in managing their finances effectively, offering modern features that cater to the needs of Families, Freelancers, and Small Business Owners. The app will include functionalities such as the ability to track expenses, set financial goals, analyse spending patterns, and receive alerts on financial risks, all accessible through a user-friendly interface on both iOS and Android platforms.

The app will be equipped with secure cloud connectivity, ensuring that users' financial data is safely stored and accessible from any device. Advanced analytics will provide personalised insights into spending habits, helping users make informed decisions about their finances. For added user convenience, the app will feature notifications for important financial milestones and risks, such as approaching budget limits or irregular spending patterns, directly on the user's mobile device.

Security measures, including encryption and multi-factor authentication, will protect users' information and transactions, ensuring a secure financial management experience. The software behind the app will be responsible for the seamless integration of these features, offering a comprehensive tool for financial planning and monitoring.

3.1.1. Finanacial Goal Planner Activity Diagram



Choose to set/view goals and other features

Login via app

Make additional changes or Log out

Review Updates

Display updated information

Expense Tracking

User uses to track his expenditure and view where all the expenses are being spent

Financial Assistant

The Financial Assistant enhances user engagement by offering informative videos that cover financial education, tips for achieving savings goals, and guides for effective budget management. These multimedia resources are designed to enrich the user's financial knowledge and decision-making skills.

Set/View Goals

User uses this to set or view his financial goals set

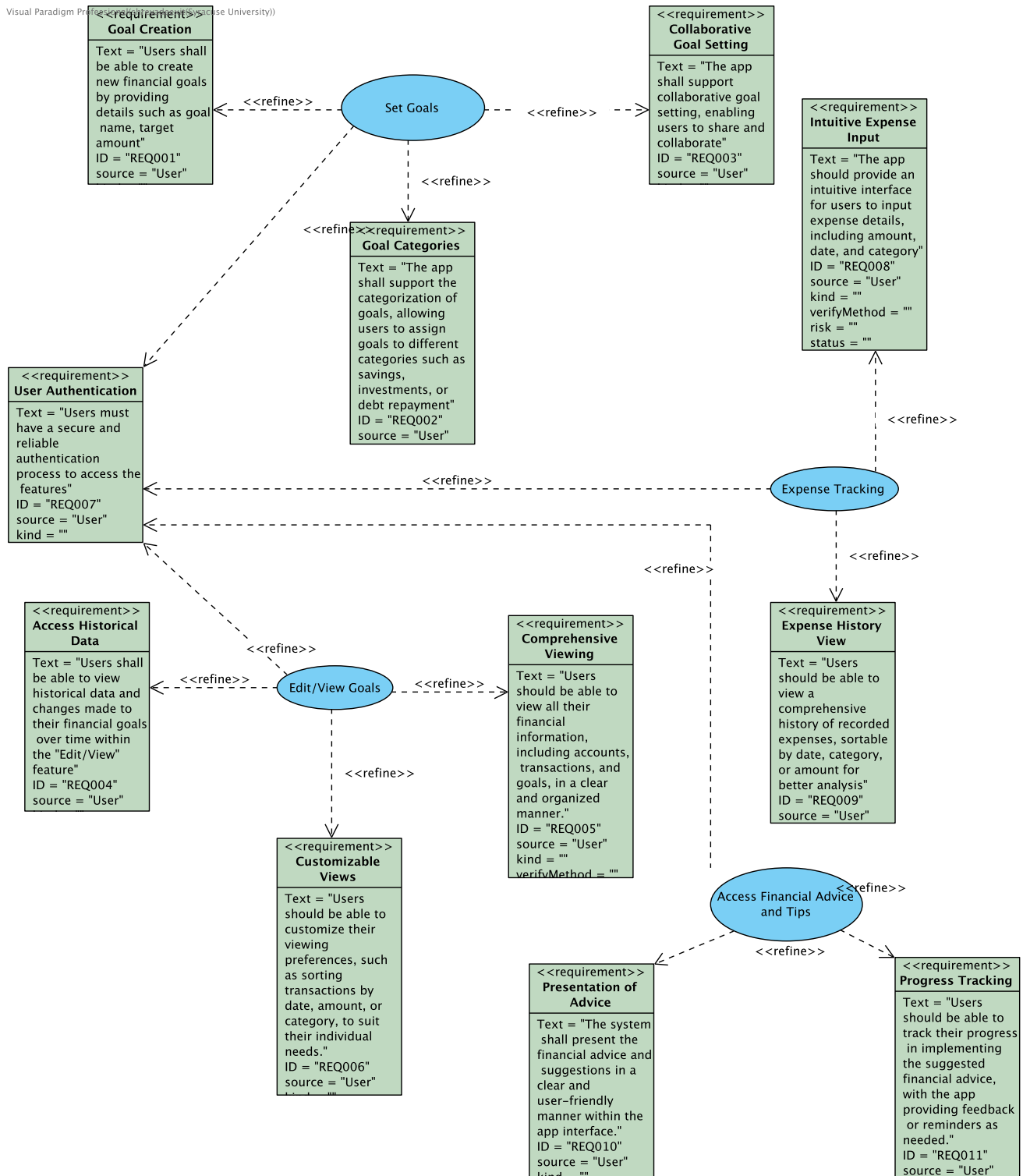
Update or store data

Display Dashboard

Interact with selected option

3.1.2. Financial Goal Planner Requirement Diagram

Visual Paradigm Pro (© 2015 Use University))



Collaborative Goal Setting

ID: REQ003

The app shall support collaborative goal setting, enabling users to share and collaborate

Access Historical Data

ID: REQ004

Users shall be able to view historical data and changes made to their financial goals over time within the "Edit/View" feature

Comprehensive Viewing

ID: REQ005

Users should be able to view all their financial information, including accounts, transactions, and goals, in a clear and organized manner.

Customizable Views

ID: REQ006

Users should be able to customize their viewing preferences, such as sorting transactions by date, amount, or category, to suit their individual needs.

Expense History View

ID: REQ009

Users should be able to view a comprehensive history of recorded expenses, sortable by date, category, or amount for better analysis

Goal Categories

ID: REQ002

The app shall support the categorization of goals, allowing users to assign goals to different categories such as savings, investments, or debt repayment

Goal Creation

ID: REQ001

Users shall be able to create new financial goals by providing details such as goal name, target amount

Intuitive Expense Input

ID: REQ008

The app should provide an intuitive interface for users to input expense details, including amount, date, and category

Presentation of Advice

ID: REQ010

The system shall present the financial advice and suggestions in a clear and user-friendly manner within the app interface.

Progress Tracking

ID: REQ011

Users should be able to track their progress in implementing the suggested financial advice, with the app providing feedback or reminders as needed.

Access Financial Advice and Tips

ID: UC04

The system provides users with financial advice, tips and access to a comprehensive library of financial education resources, including articles, videos, tutorials.

Edit/View Goals

ID: UC03

Users can add, edit, or delete details related to a specific financial goal, including the target amount, target date, and any additional notes.

Expense Tracking

ID: UC02

Users can input and categorize their expenses, allowing the app to provide insights into spending habits and identify potential areas for saving.

Set Goals

ID: UC01

Users can express their financial aspirations for the year in a way that feels uniquely personal. By inputting their goals, individuals can create a tailored roadmap, whether it's saving for a dream vacation, investing in future plans, or managing debt, bringing a stability to their financial journey.

User Authentication

ID: REQ007

Users must have a secure and reliable authentication process to access the features

3.2. Performance requirement

3.2.1. Terminate slow requests

ID: REQ012

In the event that web response exceeds maximum, the user shall be provided a dialog that permits termination of the current request.

3.2.2. Web response

ID: REQ013

In the event that response from a specific web site exceeds 3 seconds, there shall be a warning message to the user indicating server response delays.

3.3. Design Constraints

3.3.1. Accesibility

ID: REQ014

The system shall be able to support multiple languages to cater to all users, including the following:

1. English
2. Mandarin Chinese
3. High German
4. Italian
5. Russian
6. Spanish

3.3.2. Capacity

ID: REQ015

Software processing shall allow a spare capacity of 50% for memory, CPU utilization and long term storage (e.g. disk storage)

3.3.3. Software Quality

ID: REQ018

The software shall be developed and maintained in accordance with industry standard ISO/IEC 5055:2021.

3.3.4. Data encryption

ID: REQ016

The Software shall use data encryption across all interfaces.

3.3.5. Information assurance

ID: REQ017

The software shall conform to commercial standard Information Assurance (IA) controls and Security Technical Implementation Guides (STIGS).

Design Model Class Diagram

Visual Paradigm Professional(shreyasdeekit@shreyasdeekit.com)

