

# Project Report

**Dear Dairy**

**CCSW 223- Principles of Software Engineering**

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# Problem Definition

**Modern communication suffers from several problems. Nowadays, communications programs have become repetitive. Moreover,**

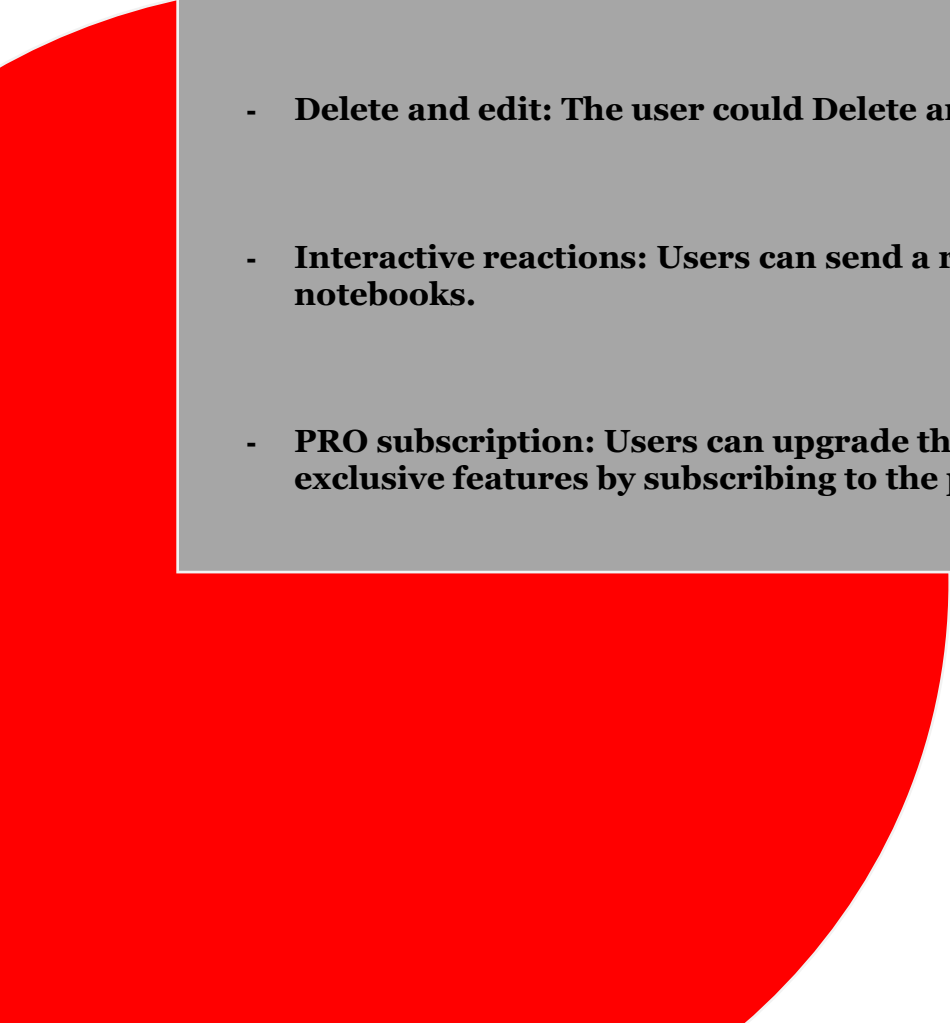
**the expansion of communication programs keeps its users busy with influencers' lives and other people's lives, which makes it toxic and time wasteful.**

**Dear Dairy program aims to enable users to write their dairy, share it, and communicate in an easy and fun way without the distraction of influencers' and other people's lives. Communication should be honest and with a small group of users.**





# Essential Functionalities

- **Custom notebook:** The user can create a custom notebook.
  - **Add friends:** The user can Add the fixed number of friends.
  - **Add pictures and voice notes:** The user may take pictures and record short voice notes in his notebook.
  - **DM:** Users can communicate through direct messages.
  - **View other's notebooks:** The user can view other friends' notebooks.
  - **Delete and edit:** The user could Delete and edit his notebook.
  - **Interactive reactions:** Users can send a reaction to other friends' notebooks.
  - **PRO subscription:** Users can upgrade their profiles and other exclusive features by subscribing to the paid category.
- 

# Interview Description

**These interviews questions aim to collect data about our application's users, to help us learn more about user preferences and implement them.**

**1) What is your opinion about using application for writing and/or sharing diaries and plans?**

**2) What is the first thing that comes to your mind when you imagine a diary application?**

**3) Do you normally share your daily diary and plans with others? If yes, how?**

**4) What social communication applications do you use? And are there any features that are missing from the current communication programs?**

**5) Do you suddenly lost interest in social media? Why?**

**6) Do you think using social media to connect with your friends or family is an effective way to communicate? Why? If no, what other ways you prefer?**

**7) What colors would you prefer the user interface for a diary application to be?**

# Interview Analysis

Raghad Lafa	Hadeel al jaed law student at Taif university 25 Dec	Hadeel also got excited about the idea of the application because she always got motivation from writing her dairies. Sometimes, she shared her dairy with the public on Instagram, locket, and Snapchat. She never gets tired of using social media because for her it's an effective way to communicate and share. Hadeel prefers a colorful interface that has yellow and pink or even orange colors. also, she thinks it will be attractive to many users.
Atheer Saed	Renad Albreky, Student in Kingabdulaziz university, 23 Des	She thinks the app is nice and fun to express herself. She liked the idea of the application, but She does not like to share it and prefers to be private. Telegram is the most app she preferred, and she thinks that it does not need any development. She is dissatisfied with social media because she believes that people are draining and annoying on there, therefor her use becomes less. She believes that social media are important to stay in constant communication, especially with friends and family living in different countries. Colors preferred are Tiffany blue, white, and gold.
Atheer Saed	Reem Hakeem, Student in Jeddah university, 23 Des	she thinks it is a creative idea that we <u>don't</u> see much. She thinks it will be helpful. She loves to share the details of her day with close friends daily. she uses WhatsApp, Snapchat, and Tik Tok to communicate with friends. And she thinks Tik Tok needs <u>some</u> development, such as include an audio recording. She thinks that social media can be annoying sometimes when spending a long time using it. She prefers to meet people instead of talking to them electronically, but she thinks that it is a suitable option because of her busyness and the difficulty of meeting everyone always. preferred dark violet color.
Sirin Alkham	Difaf Alharbi, Accountant in Abdul Latif Jameel, 25 Des	Difaf thinks it is a great idea to have a diary/planner application. She has already been looking for one. Difaf would like to have a checklist of daily tasks with a reminder notification to encourage her to be more productive. She would also like to share them to encourage others. She usually uses social media like What'sApp and Snapchat to communicate with her friends and family, and she finds that there is enough for her. But nowadays, Difaf has lost interest in social media due to the repetitive and time-consuming content. For the user interface, Difaf prefers the colors green-beige or yellow, as green and yellow represent productivity.
Sirin Alkhamisi	Ghida Alkhamisi, Student in the middle school of thirty- six, 25 Des	Ghaida thinks that the application would be helpful to write down her daily notes. However, she prefers not to publish her plans and diary because she believes that some details of her life should remain private. Social media has become uninteresting to her because the content is repetitive and time-consuming. Although Ghaida believes that she needs <u>some</u> social media like Snapchat to communicate with her friends and family. Ghaida prefers a yellow-orange or green-blue user interface.

# Interview Analysis

Interviewer	Interviewee	Analyst Comment
Joury Alshalwi	Lujain Alghamdi, Student in UmmAl-Qura university, 22 Dec	She thinks it is a new idea and would like to use it because she like writing. Shewould like to save everything she write by date and time and can share it with others, social media is something important because it is related to work and other important aspects of life. About the interface she like dark color like dark sea blue.
Joury Alshalwi	Turki Alharbi, Engineer in Aramco, 21 Dec	Dairy is something personal to him. He would like something general in the appwith family and friends. He would like to use it at night to write a summary of the day. Sometimes he loses interest in social media because he is trying to focus on his career, but it's necessary to communicate with friends and family who's far away. About the interface he would like to have some option to choose which color he prefers.
Renad Hawsawi	Taiba Al_Hamed, Product Designer in Effat university, 26 Dec	She likes the idea of the diary application and mentions that it will attract writersand journalists. She is a mysterious person who prefer to keep herself hidden. Locket and Bereal are her favorite apps. She is upset with today's social mediabecause of the lack of privacy and collecting data policy. Dark colors are her favorite colors.
Renad Hawsawi	Thraa Ali, Financial coordinator in Bunyan, 26 Dec	Writing has been Thraa's hobby since she was born. She has enjoyed writing her diaries every day since elementary school. She gives and advice to add Stickers as features. She only uses Twitter. She thinks words are the best way tocommunicate with others rather than pictures or videos. She like warm colors like cyan, light green and Beige.
Raghad Lafe	Marah Ali, Medical Studentat Jazzan university 26 Dec	Marah thinks that it would be a great idea and a more appropriate way to write her diaries rather than write them down on the note app on the phone. She said that an application that contains convenient tools, and templets for writing plans/diaries would be more than enough for any user. Although she doesn't write daily diaries, she loves to use Twitter to write some of her dairies, but she also got bored sometimes because of the repetition and there is a lot of negativeenergy on it, but the communication there is easy and doesn't require any effort.Marrah prefers a light interface like purple.

**We concluded from what we gathered It seems that many people like to share the details of their day with family and friends, and a few do not prefer it, but they believe that communicating with each other is important, especially with people who are far away. users prefer to choose the color of the interface, convenient tools, templates for writing plans/diaries, and a checklist of daily tasks with a reminder notification.**





# The purpose of the project

## Content

**program aims to enable users to write their dairy, share it, and communicate in an easy and fun way so the user can create custom notebook and take pictures and record short voice notes into their notebook and add fixed number of friends and view their notebook and send a reaction to their notebook.**

## Motivation

**make more fun and easy way to communicate without the distraction of influencers' and other people's lives.**

## Considerations

**The problem is the expansion of communication programs keeps its users busy with influencers' lives and other people's lives, but our program makes it more easier without the distraction of influencers' and other people's lives.**

## Goals of the Project

**Modern communication suffers from several problems. Nowadays, communications programs have become repetitive. Moreover, the expansion of communication programs keeps its users busy with influencers' lives and other people's lives, which makes it toxic and time wasteful.**





# Preliminary report

## The problem:

communications programs have become repetitive. Moreover, the expansion of communication programs keeps its users busy with influencers' lives and other people's lives.

## Findings:

Users prefer different kind of interface.


## Recommendation or proposed solution:

make options of the interface to choose from

Project Estimated Costs

## Project Estimated Costs:

Resources	Estimated cost
Development	200\$
Design	150\$
Marketing	60\$
Implementing	300\$



# Preliminary Report

Tasks	Estimated duration	Start date	End date
	<b>4 days:</b>	<b>Sun1/1/23:</b>	<b>Wed1/4/23:</b>
<b>Scope</b> -define project scope -secure project sponsorship -Define Preliminary -Secure Core Resources	-5hrs -1day -5hrs -1day	- Sun1/1/23 - Mon1/2/23 -Tue 1/3/23 - Tue 1/3/23	- Sun1/1/23 - Mon1/2/23 -Tue 1/3/23 - Tue 1/3/23
<b>Analysis/Software Requirements:</b>	<b>8 days:</b>	<b>Thu 1/5/23:</b>	<b>Mon 1/16/21:</b>
-Conduct need analysis	-4 days	-Thu 1/5/23	-Tue 1/10/23
-Develop preliminary budget	-2day	-Wed1/11/23	-Thu 1/12/23
-Review Software specification	-4hrs	-Fri 1/13/23	-Fri 1/13/23
-Secure Required resources	-1day	-Mon 1/16/23	-Mon 1/16/23
<b>Design:</b>	<b>14 days:</b>	<b>Tue 1/24/23:</b>	<b>Fri 2/10/23:</b>
-develop functional specification	-7 days	-Tue 1/24/23	-Wed 2/1/23
-review functional specification	-3 days	-Thu 2/2/23	-Mon 2/6/23
-incorporate feedback into functional specifications)	-4 days	-Tue 2/7/23	-Fri 2/10/23
<b>Development:</b>	<b>20 days:</b>	<b>Sat 2/11/23:</b>	<b>Thu 3/9/23:</b>
-review functional	-10 days	-Sat 2/11/23	-Thu 2/23/23

# Feasibility study

## Problem Definition:

Modern communication suffers from several problems. Nowadays, communications programs have become repetitive. Moreover, the expansion of communication programs keeps its users busy with influencers' lives and other people's lives, which makes it toxic and time wasteful.

## Scope Objectives of “new system”:

The system name is Dear Diary. It is an application that enable users to shear/save their diaries and plans with only a small group of friends and family. It converts the communication through social media from boring and repetitive to a healthy and entertaining way. Through enable users to choose if their diaries and planes private or public and if it is public it will be with only a small group of people.

## Alternative Solutions:

- It is possible to take an application and develop it and adapt virtual note on it.
- Start printing, decorate, and customize paper notebook.

## Cost And Benefits of Alternatives:

Alternatives	Cost	Benefits	Drawbacks
<i>Develop an application (Locket)</i>	<i>45,000 up to 100,000</i>	Since the application will already be in the market, it will not require marketing efforts or funds.	The high cost of development, and there may also be a negative reaction from some users who may be annoyed by the changes of the application.
<i>Paper notebook</i>	<i>10,000 per month</i>	The percentage of written content loss is much lower than on mobile devices also a notebook will never run out of battery.	It lacks privacy, as soon as the note becomes in the hands of anyone, they can read it without any permission.
<i>Do nothing (develop from scratch)</i>	<i>30,000 up to 40,000</i>	It will meet real needs of users, and we will have the control over evolution.	It will cost developing and it will be slow.



# Feasibility study

## **Software Impacts:**

The application we're designing will be built from scratch, but it won't fundamentally alter the way people communicate on social media. Even though it will make it far more enjoyable and creative than with current social media applications.

## **Potential Changes in the Organization:**

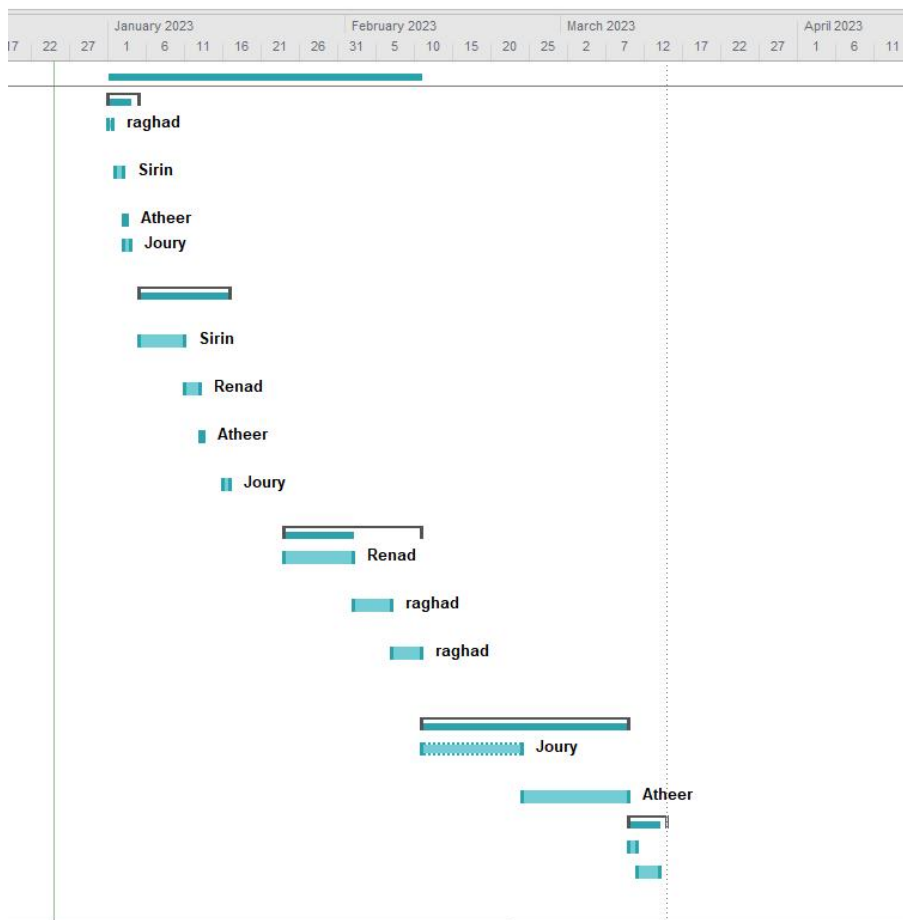
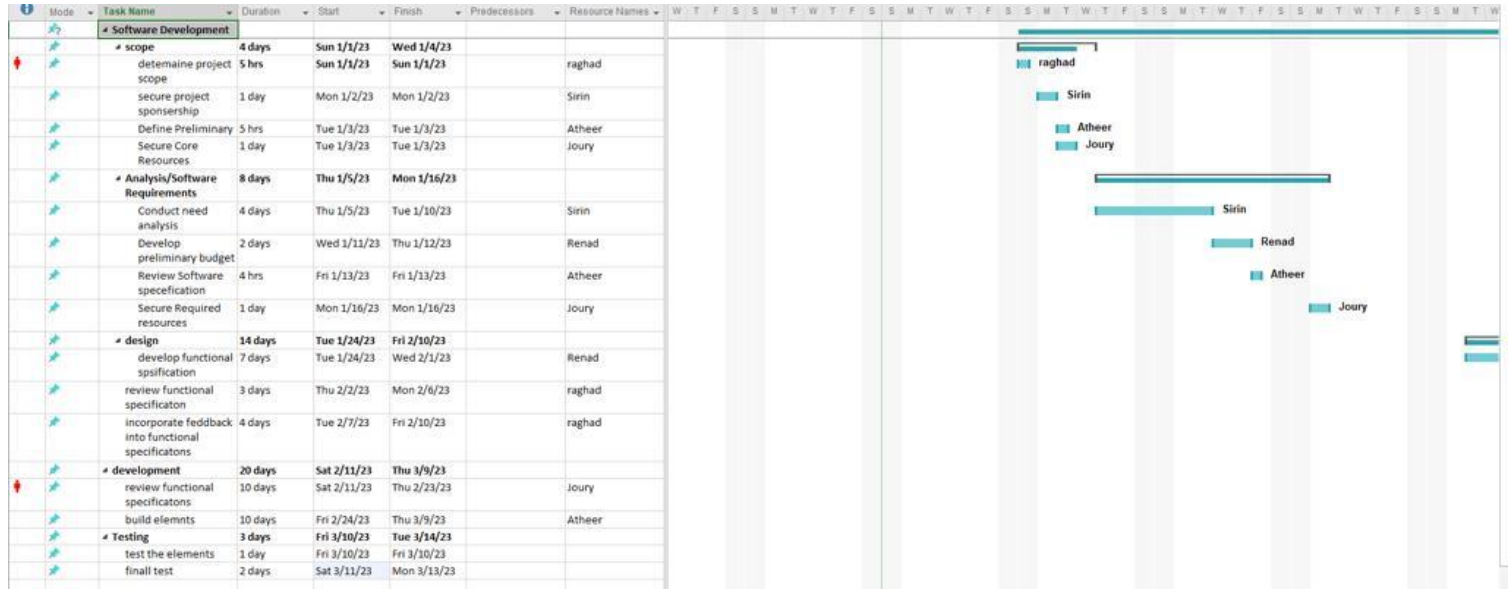
Users will be encouraged to start writing their diaries and plan their day. Whether they prefer to share it or not.

## **Recommended Alternative of the Course of Action:**

Design an application from scratch will meet real needs of users, and we will have the control over evolution.



# Project Plan (By using Microsoft Project)





# Stockholder Definition

## **The Client**

**There is no client .**

## **The Customer**

**The person intended to use the system .**

## **Other Stakeholder**

**Developers Mangers IT staff.**

# The scope of the work

## **The Current Situation**

**aims to enable users to write their dairy, share it, and  
communicate in an easy and fun way without the  
distraction of influencers' and other people's lives**

## **The Context of the Work Context Diagram**

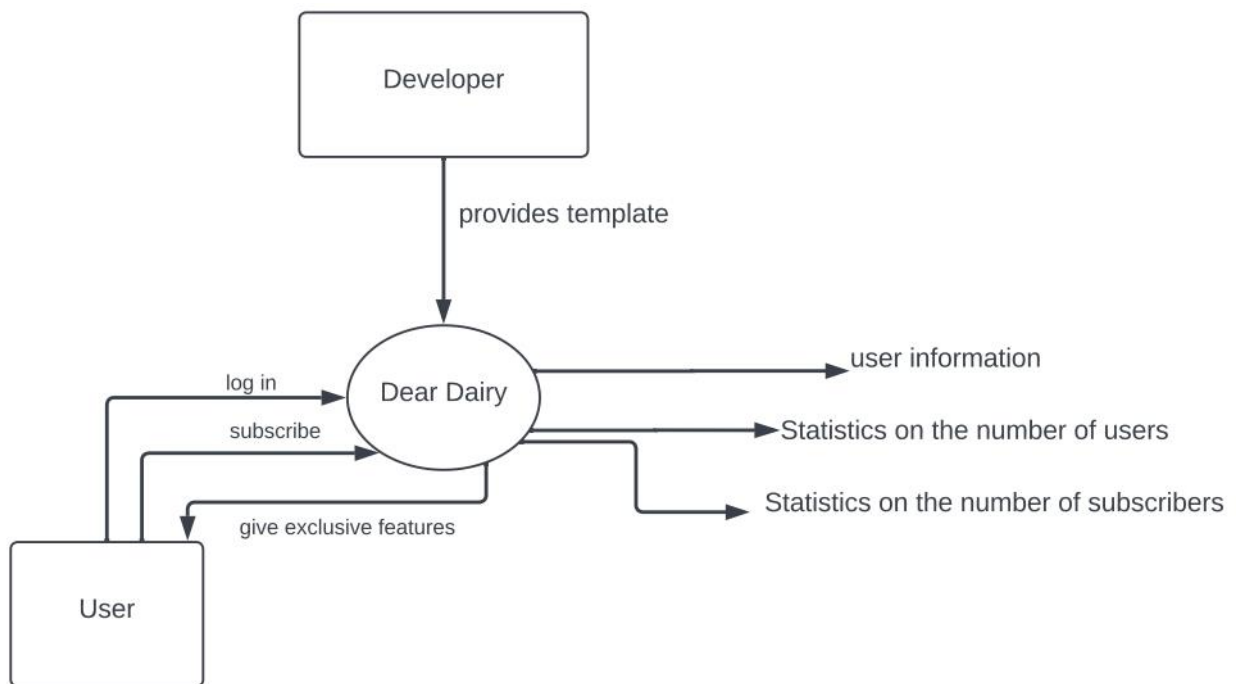


# The scope of the work

## The Current Situation

aims to enable users to write their dairy, share it, and communicate in an easy and fun way without the distraction of influencers' and other people's lives

## The Context of the Work Context Diagram



Event Name	Input and Output	Summary
1.provide templates	Input	Developer creates template for notes
2.log in	Input	Users log in to the system
3. subscribe	Input	Users subscribe to gain more features
4.give exclusive features	Output	System gives features to users with subscription
5.create note	Input	User creates note
6.user information	Output	System saves user information in database
7.statistics on the number of users	Output	System displays the number of people who use the system
8. statistics on the number of subscribers	Output	System displays the number of people who have subscribed



# Requirements and Use case model

## List of scenarios:

<b>Name</b>	<b>Search Friend</b>
<b>Id</b>	UC2
<b>Actors</b>	User
<b>Precondition</b>	Display List of Friends
<b>Path</b>	<ol style="list-style-type: none"><li>1. Step 1: User tries to search for friends.</li><li>2. Step 2: system will display a list of all the friends.</li><li>3. Step 3: User can select and add a friend from the list.</li><li>4. Step 4: User can select and delete a friend from the list.</li></ol>

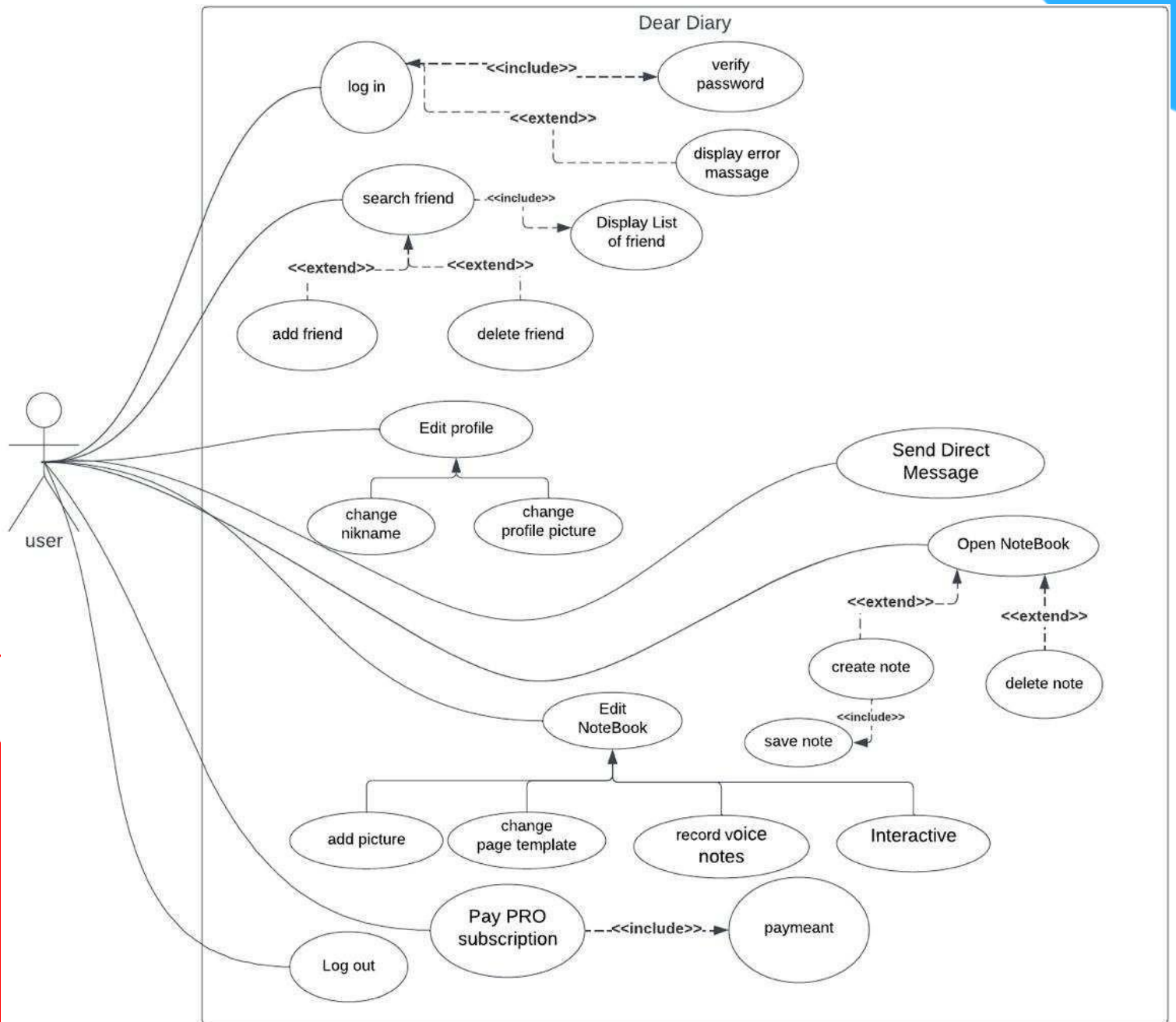
<b>Name</b>	<b>Edit profile</b>
<b>Id</b>	UC3
<b>Actors</b>	User
<b>Precondition</b>	
<b>Path</b>	<p>Step1: Users open profile page.</p> <p>Step2: System shows the users their profile.</p> <p>Step3: Users choose to edit their nickname or their profile picture.</p> <p>Step4: If users edit their nickname, system saves the new nickname.</p> <p>Step5: If users change their profile picture, system makes the users choose between removing the picture or choose one from the album.</p> <p>Step6: system saves the new picture.</p>

<b>Name</b>	<b>Open Notebook</b>
<b>Id</b>	UC5
<b>Actors</b>	User
<b>Precondition</b>	
<b>Path</b>	<ol style="list-style-type: none"><li>1. Step 1: User open the notebook.</li><li>2. Step 2: Users can create note.</li><li>3. Step 3: If the user creates a note the system will save the note.</li><li>4. Step 4: Users can delete any note whenever they want.</li></ol>

Name	Edit note
Id	UC6
Actors	User
Precondition	The user must have been created notebook first.
Path	Step1: Users open his previously created notebook. Step2: System will show the users all their notes in the notebook. Step3: Users will choose edit note button. Step4: Users can add a picture or a sticker to theirs notes. Step5: Users can delete a picture or a sticker form theirs notes. Step6: Users can change page them. Step7: Users can add a voice notes. Step8: Users can delete a voice notes. Step9: System will save all the edits from user.

Name	Pay PRO subscription
Id	UC7
Actors	User
Precondition	
Path	Step1: Users open a subscription page. Step2: Display a list of pre-paid themes and stickers. And chooses of increasing the number of friends to be added. Step3: If users choose themes and stickers to bay, they will go to a payment page. Step4: If users choose the number of friends to be added, they will go to a payment page.

# Use case diagram



# Functional Requirements

- The system shall enable user to switch from night mode to day mode or vice versa.
- user able to change the template of the page.
- user can insert a picture to the note.
- each user should have a unique username.
- user able to record a voice note.
- user can be able to send friend request.
- user can be able to reject friend request.
- system be able to list all user friends.
- User can create custom notebook.
- Users can send a reaction to other friends notebook.
- Users can upgrade their profiles and other exclusive features by subscribing to the paid category.
- User can view other friends notebooks.
- Users can communicate through direct message.
- User can edit profile account.
- The system automatically will save all user edit to his note book.

# Non-functional Requirements

## Performance

- the application is able to handle high levels of concurrency.
- Java language is used to program the application.
- The application can be installed on both (android - IOS) systems.

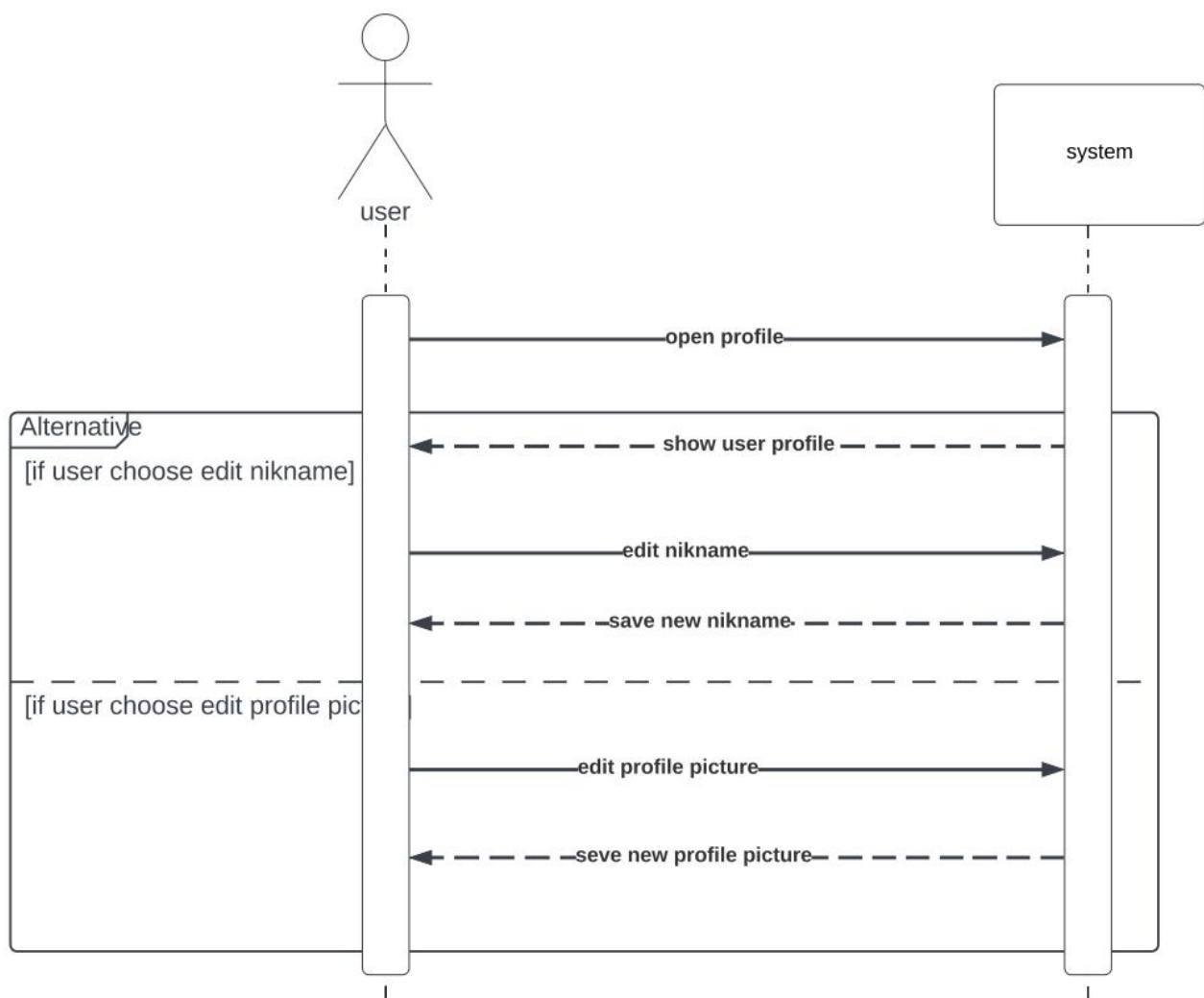
## Usability

- interface easy to understand and to use by all kind of users.
- The application provide clear navigation that allows users to easily move between different areas of the system.
- The application is consistent in its design and behavior, allowing users to transfer their knowledge from one part of the system to another.
- The application is easy for users to remember, allowing them to quickly and easily return to the system after a period of absence.:

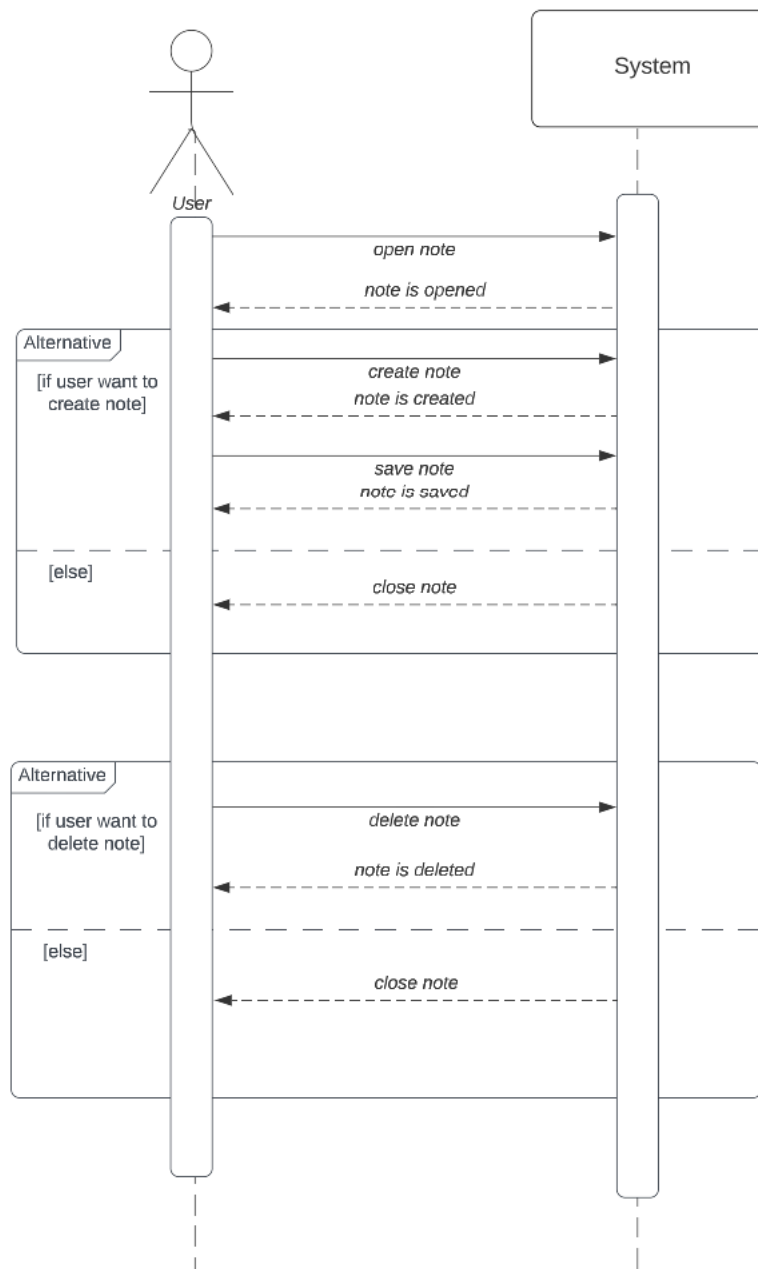
## Availability

- The application has a backup option.
- The application can provide limited functionalities in offline mode.

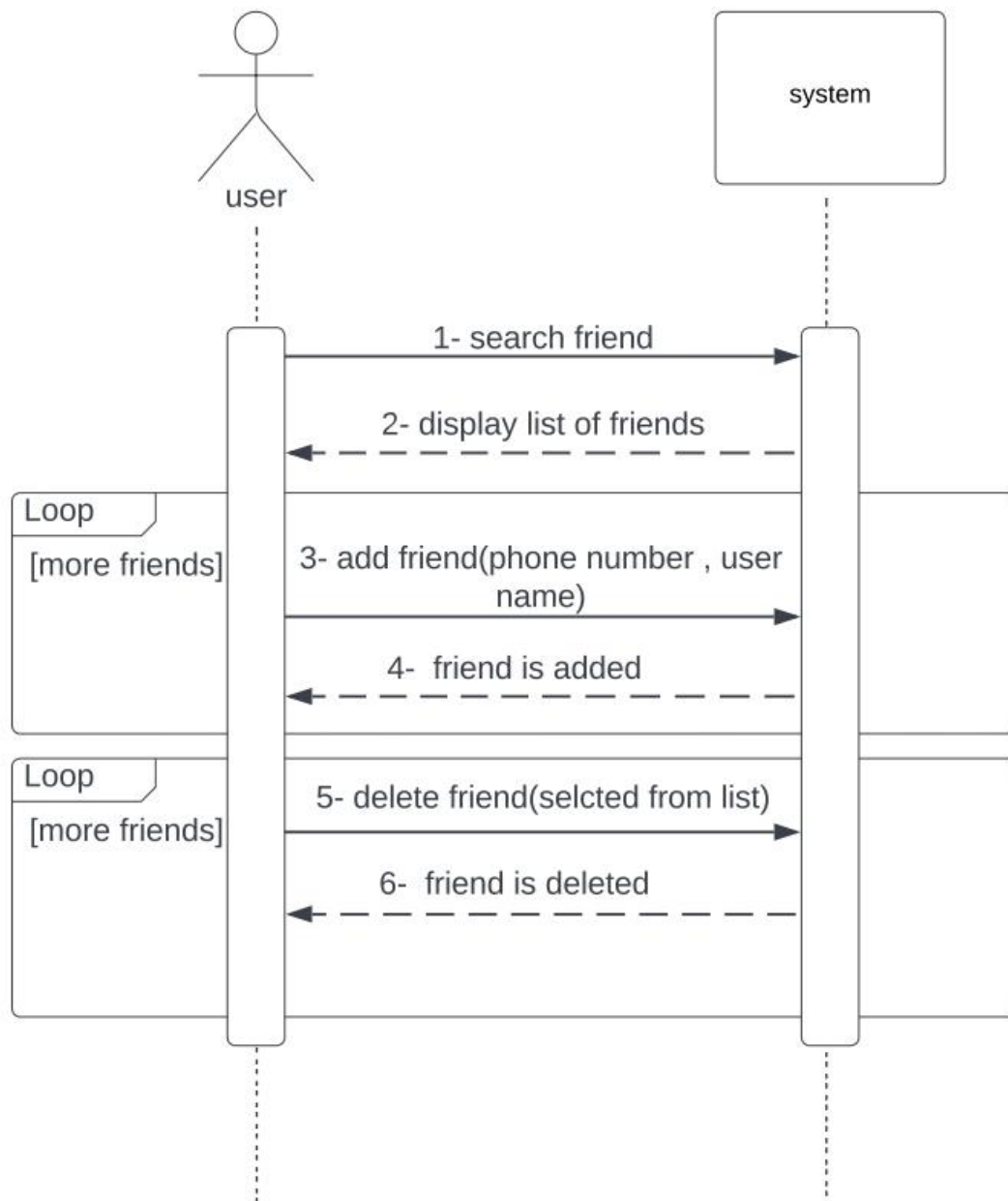
# Sequence Diagram



# Sequence Diagram

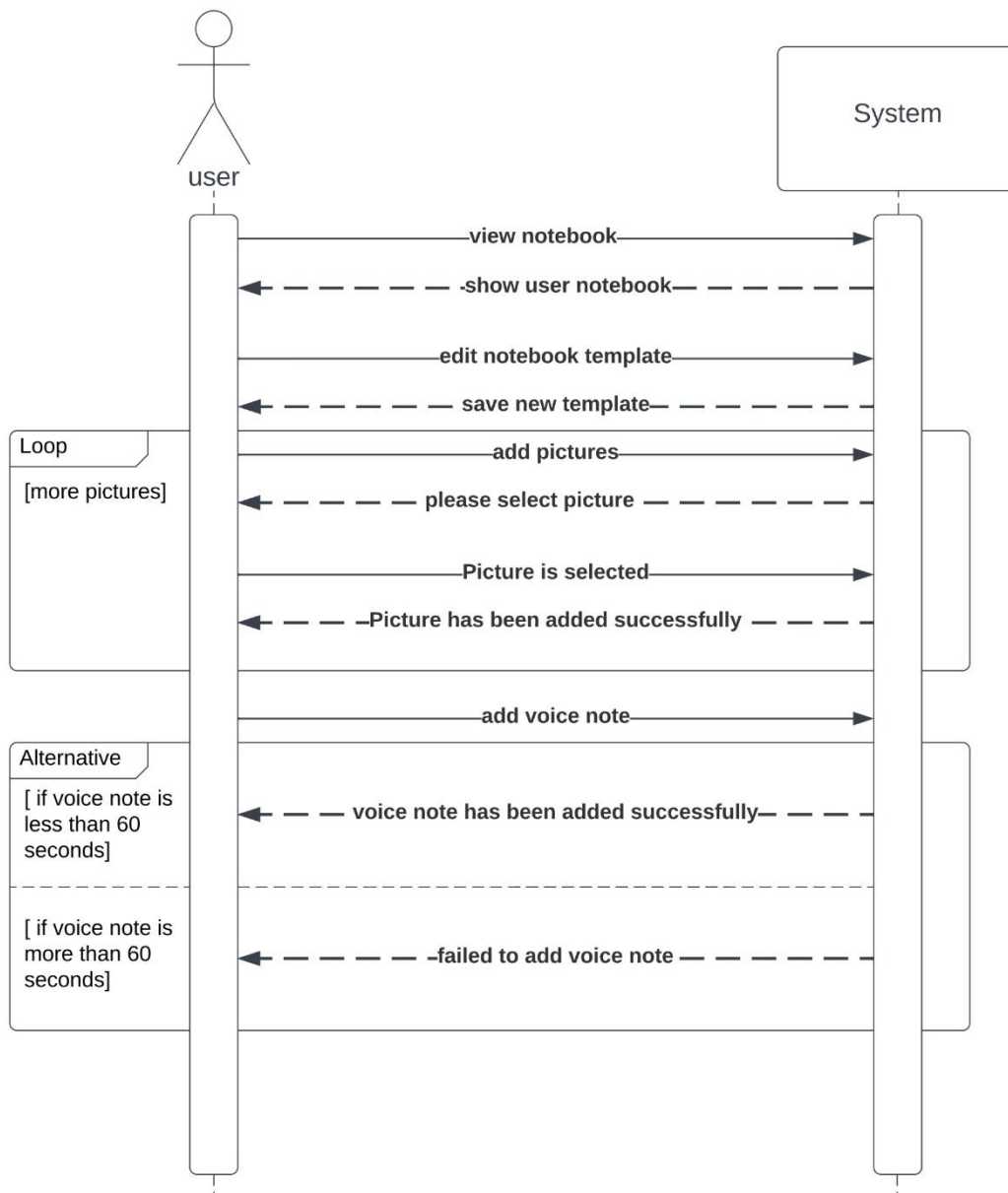


# Sequence Diagram

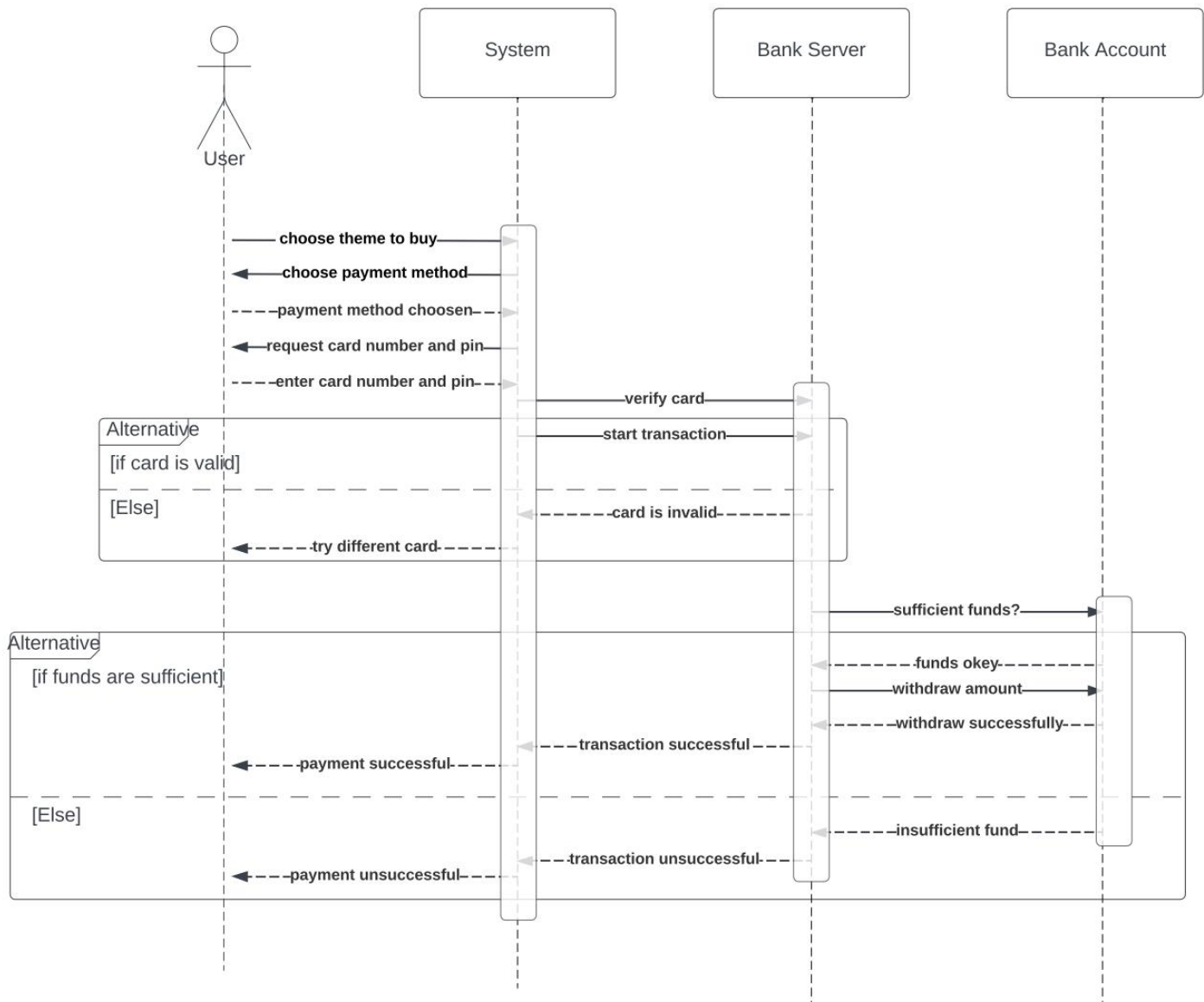




# Sequence Diagram



# Sequence Diagram



# SYSTEM CLASS ANALYSIS

Daily notes application:

We are interested in designing a simplified Notebook System that have one types of users.

- User can
  - o Create notebook.
  - o Add picture and voice.
  - o Add and delete note.
  - o Add Fixed Friends
  - o Edit profile.
  - o Subscribe for exclusive features.
- There are three types of subscriptions each type has exclusive features.
- Each feature has its own templates.
- Each template can be modified, such as (color - font - adding images ) .
- For each user the system will keep all shared data.
- Friends can see each other's notes and interact with them (voice note - message -emoji).

# Class Diagram

