Kingdom of Saudi Arabia Ministry of Education
Prince Sattam Bin Abdulaziz University
College of Science and Humanities – AlAflaj
Department of computer science

المملكة العربية السعودية
وزارة التعليم
جامعة الأمير سطام بن عبدالعزيز
كلية العلوم والدراسات الإنسانية – الأفلاج قسم علوم الحاسب

SNAPCHAT

N	Student Name	Student Number
1	Sara Abdullah Mutlaq Aldawsari	443850268
2	Khloud Abdullah Rasheed Almosa	443850342
3	Sadeem Abdullah Hathal Aldawsari	443850331
4	Jana Ziad Hathal Aldawsari	443850391

Supervised by: Dr.Mohammed Saad Mohammed Assiri

Year: 2023

1.1 INTRODUCTION

Snapchat is a popular app that lets people send photos and videos that disappear after they're seen. It's known for its fun filters that can change your look, like giving you dog ears or a funny hat. You can also share stories that last for 24 hours, chat with friends, and see news or entertainment on its Discover feature. It's especially popular with younger people who enjoy sharing moments of their day without worrying about them staying online forever.

1.2 PROBLEMS

Snapchat solved the problem of wanting to share moments without them staying online forever. Before Snapchat, most social media kept photos and posts around for a long time, which could be embarrassing or cause privacy issues later. Snapchat made it so photos and videos disappear after a short time, letting people share freely without worrying about the long-term consequences.

1.3 BACKGROUNDS

Snapchat was launched in 2011 by a group of Stanford University students. It introduced the concept of ephemeral messaging—photos and videos that disappear after being viewed. The app quickly caught on, especially with teens, for its privacy and playful features. Over time, it expanded with Stories, Lenses, and Discover content. Today, Snapchat remains a staple app for casual, spontaneous communication.

1.4 PROPOSED SOLUTION

The solution is to use an app that allows the user to share photographs and videos that are only transitory. A friend can only view a Snap that you send them for a brief period of time before it disappears. Posts to your Story are only accessible for a full day after they are made. This implies that you can share a moment online without having to worry about it being permanently archived.

1.5 WORK PLAN

The Waterfall model is a classical software development methodology, primarily known for its sequential and linear approach to software design and system development.

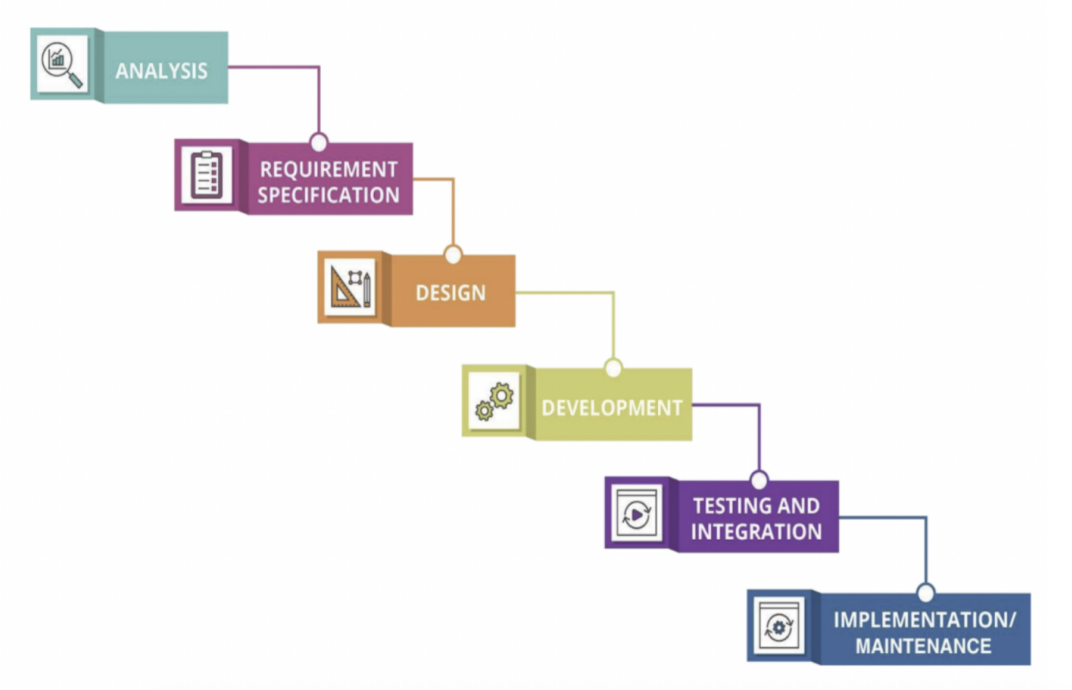


Figure 1: WaterFall Model

Waterfall model of project management:

1. Requirements Gathering: Define and document project requirements and specifications.
2. System Design: Plan and design the system architecture based on the gathered requirements.
3. Implementation: Develop the system by coding and building the actual software.
4. Integration and Testing: Combine all components and rigorously test the system for errors and bugs.
5. Deployment: Release the fully tested system into a production environment for use.
6. Maintenance: Provide ongoing support, fix issues, and make necessary updates to the system.
7.

1.6 OVERALL

This chapter provides an overview of the project about the project idea, including the problem, solution, and plan.

2. PROJECT REQUIREMENTS

This section contains functional and nonfunctional requirements of Snapchat application.

2.1 FUNCTIONAL REQUIREMENTS

Functional requirements describe the specific functions or features that the system must perform to meet user needs. Snapchat application has several functions which they are:

1. Register: Create a new user account.
2. Login: Access existing account.
3. Send Snaps: Share photos or videos.
4. Show Contents: Display stories and media.
5. View Notifications: See alerts and updates.
6. Add Friends: Connect with other users.
7. Send Messages: Transmit text to friends.
8. Receive Messages: Get text from others.

2.2 NON FUNCTIONAL REQUIREMENTS

Non-functional requirements (NFRs) are criteria that specify a software system's quality features.
For an application like Snapchat, non-functional requirements would typically include:

1. **Performance**:

   The application responds to user inputs within a certain time frame, under 1 second for any action.

2. **Usability**:

   The User Interface (UI) of the application is intuitive and easy to navigate for new users.

3. **Reliability**:

   The application is operational and available to users at least 99.9% of the time and it recovers from failures without data loss.

4. **Scalability**:

   The system is scalable to accommodate a growing number of users and data.

OVERALL

This section outlines the functional and non-functional requirements of Snapchat. The following section will present a drawing of the activity diagram.

3. ACTIVITY MODEL

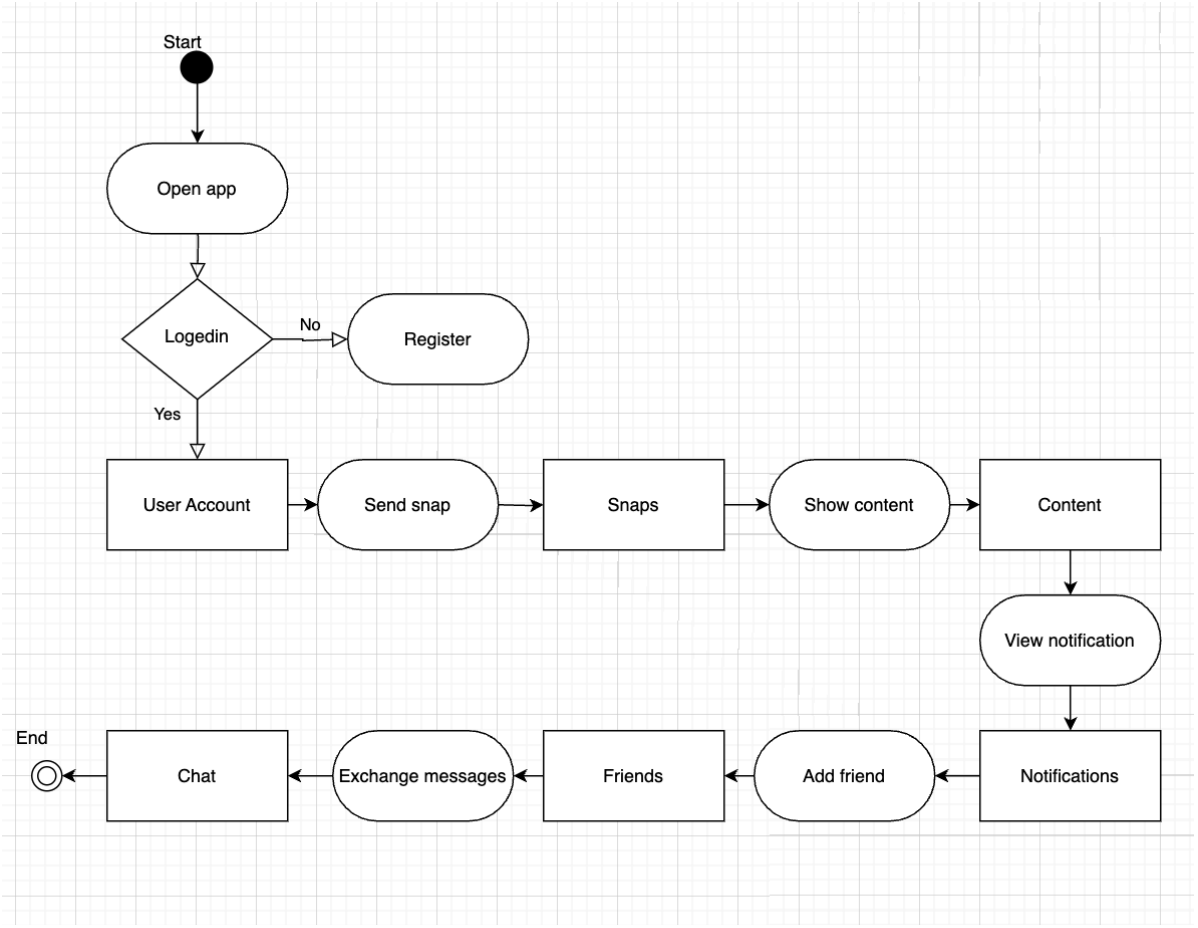


Figure 2: Activity Diagram

OVERALL

An activity diagram in Unified Modeling Language (UML) is used to describe the dynamic aspects of a system. It shows the flow from one activity to another in the system [1]. Figure 2 presents the activity model for the Snapchat application, describing the flow of the system's status in response to various events.

4. USE CASE MODELING

Table 1: Actor Rules

Actor	**Rule**
User	● Register ● Login ● Send snap ● Show content ● View notification ● Add friend ● Send message ● Receive message

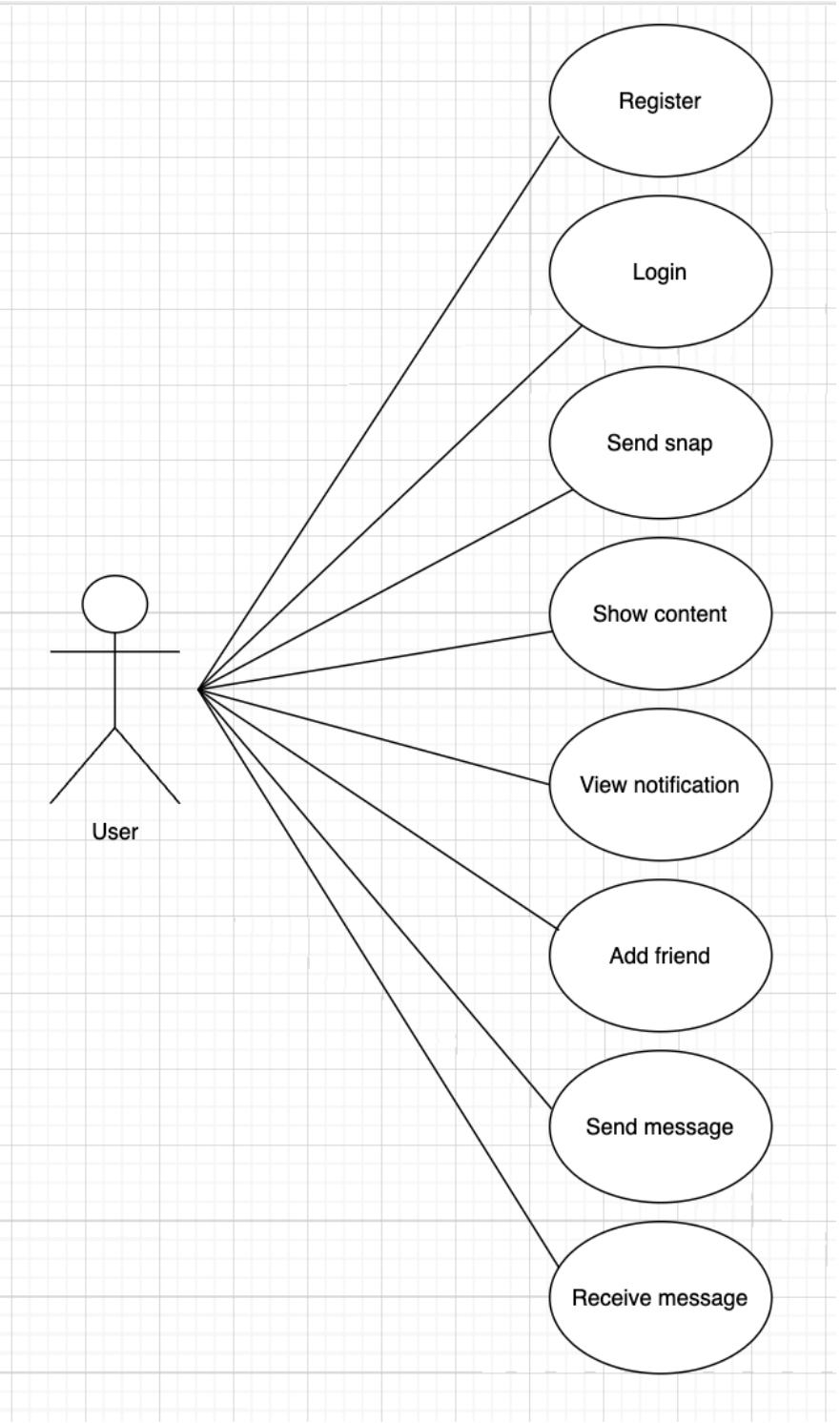


Figure 3: Use case Diagram

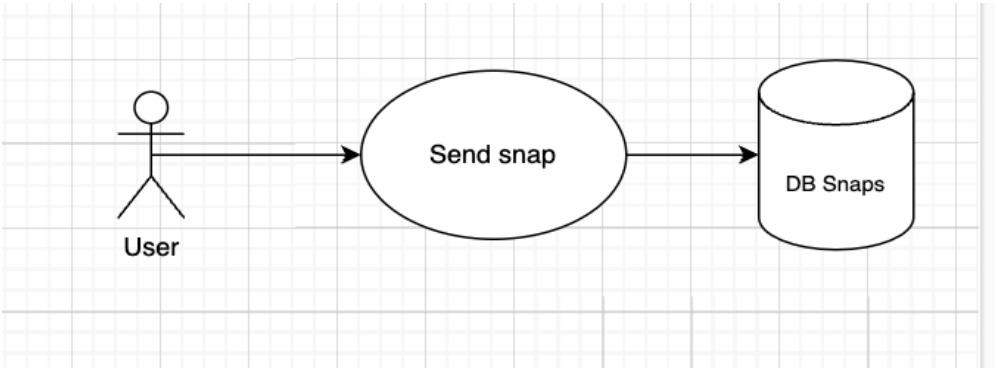


Figure 4: Send snap use case

Table 2: Send Snap Use Case

User: Send Snap	
Actors	User and DB of snaps
Description	The user captures a photo or video and then selects one or more recipients from their friends list to send it to.
Data	User ID, Snap ID
Stimulus	User want to send a snap
Response	The recipients can view snap content (photo, video) for a limited time before it disappears.
Comments	User can add a filter to the snap before sending it

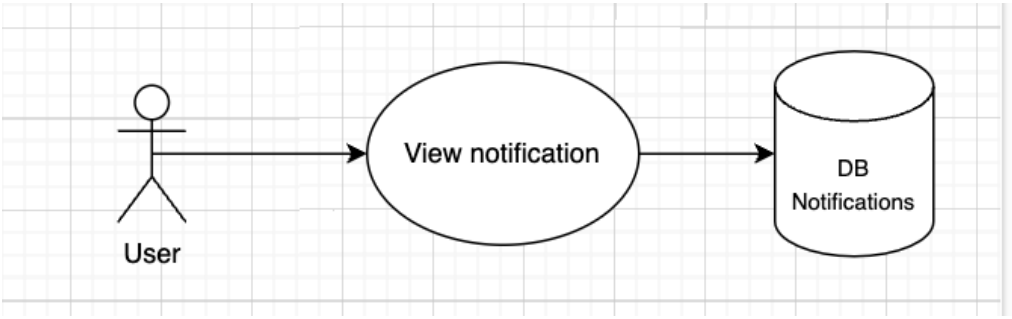


Figure 5: View notification use case

Table 3: View Notification Use Case

User: View Notification	
Actors	User and DB of notifications
Description	In this case, the user receives and views notifications for various activities.
Data	User ID, Notification ID
Stimulus	The user wants to view the notification
Response	Notification details such as new snaps, messages, or updates to stories.
Comments	-

OVERALL

A use case model is a diagram or structured representation that shows the interactions between users (actors) and system functions. This section presents the use case model for the Snapchat application, describing them in different tables [2].

5. SEQUENCE DIAGRAM

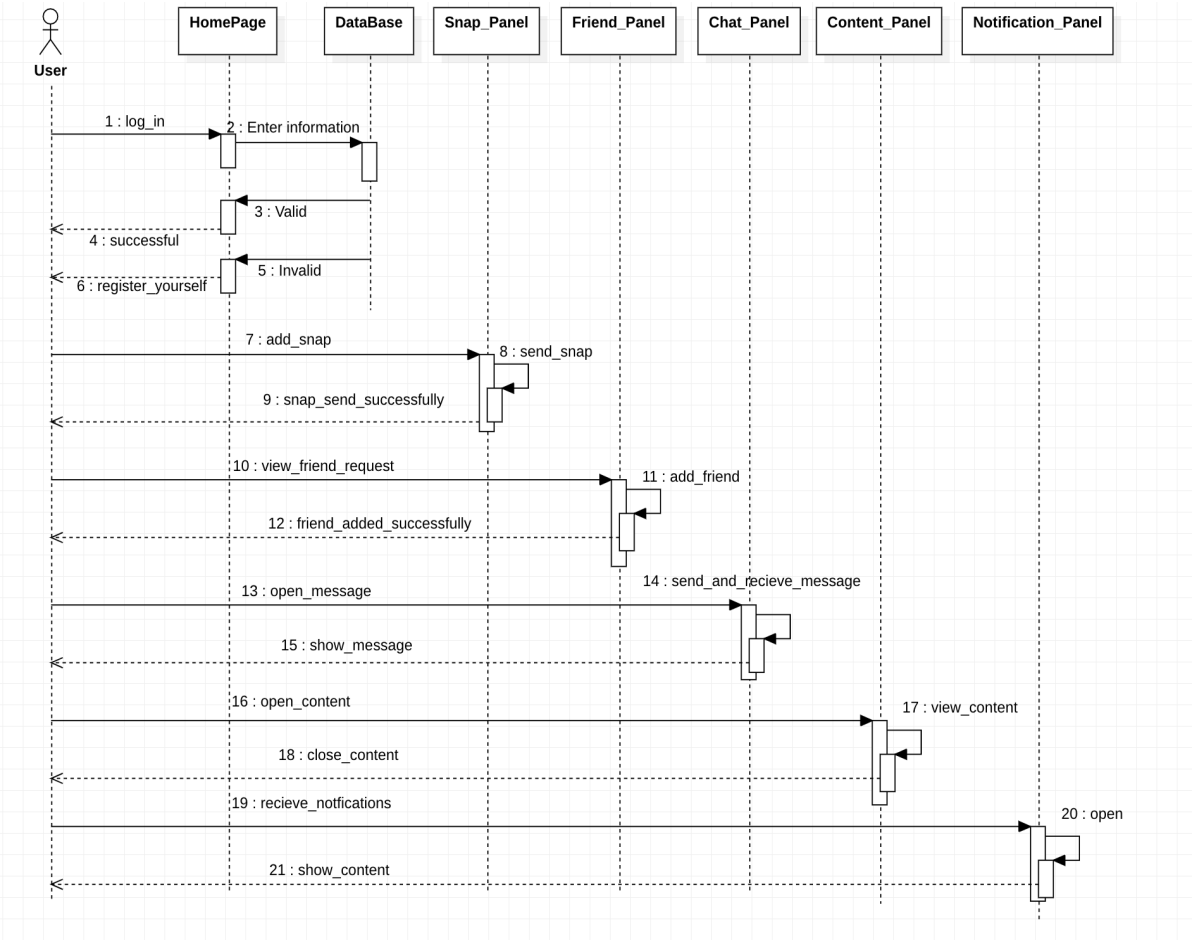
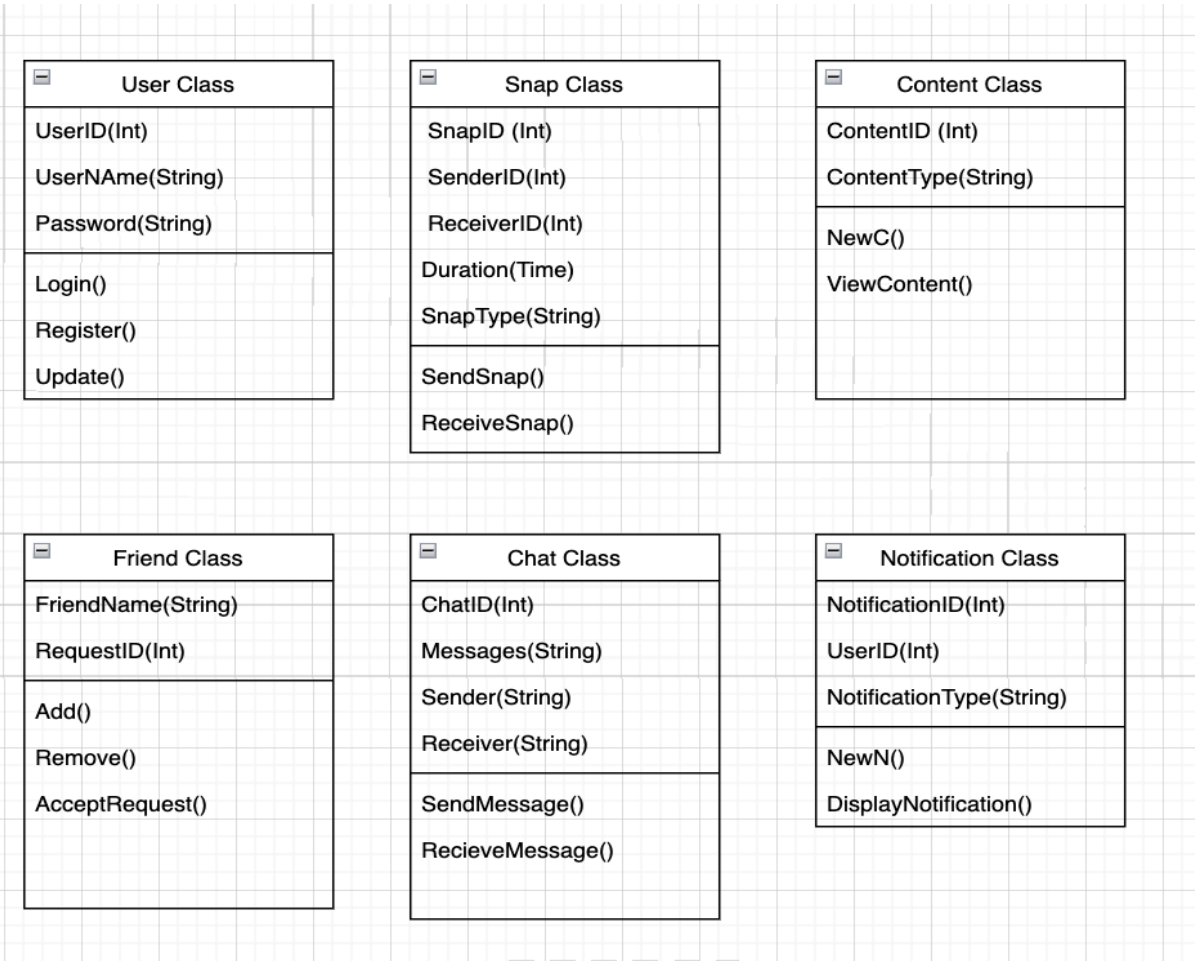


Figure 6: Sequence diagram

OVERALL

A sequence diagram illustrates how objects interact with each other in terms of a sequence of messages [3]. Figure 6 presents the sequence model for the Snapchat application, describing the interactions and flow of processes between users and system components.

6. CLASS DIAGRAM



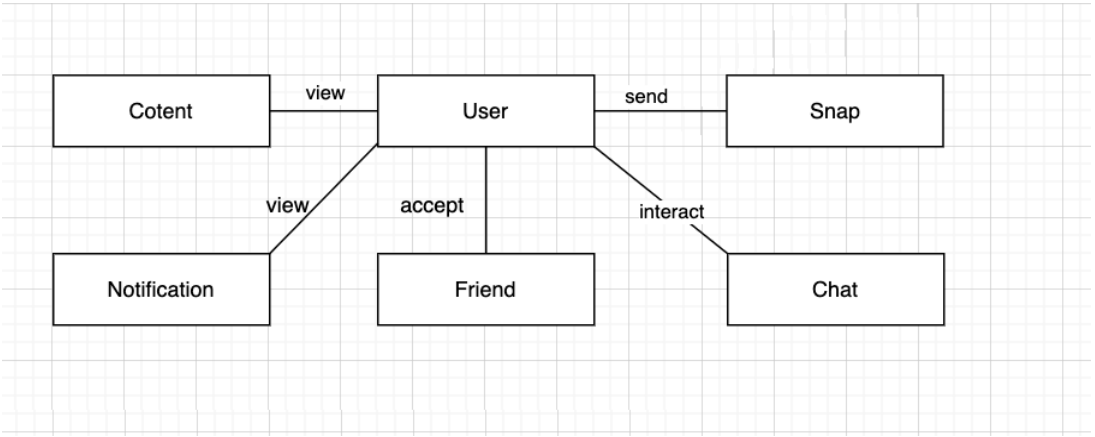


Figure 7: Class diagram

OVERALL

A class diagram is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations, and the relationships among the classes [4]. Figure 7 presents the class model for the Snapchat application, describing the structure and relationships of the system's classes and objects. This project focuses on the Snapchat application, offering an overview of its key problem and solution, and draws various UML diagrams for detailed illustration.

REFERENCES

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