



**Project Name:**

**HEARE ME application**

## **Software Engineering SE3037 Project**

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# OUTLINE:

- 01 Introduction
- 02 Functional Requirements
- 03 Non-Functional Requirements
- 04 System UML Models
- 05 Conclusion



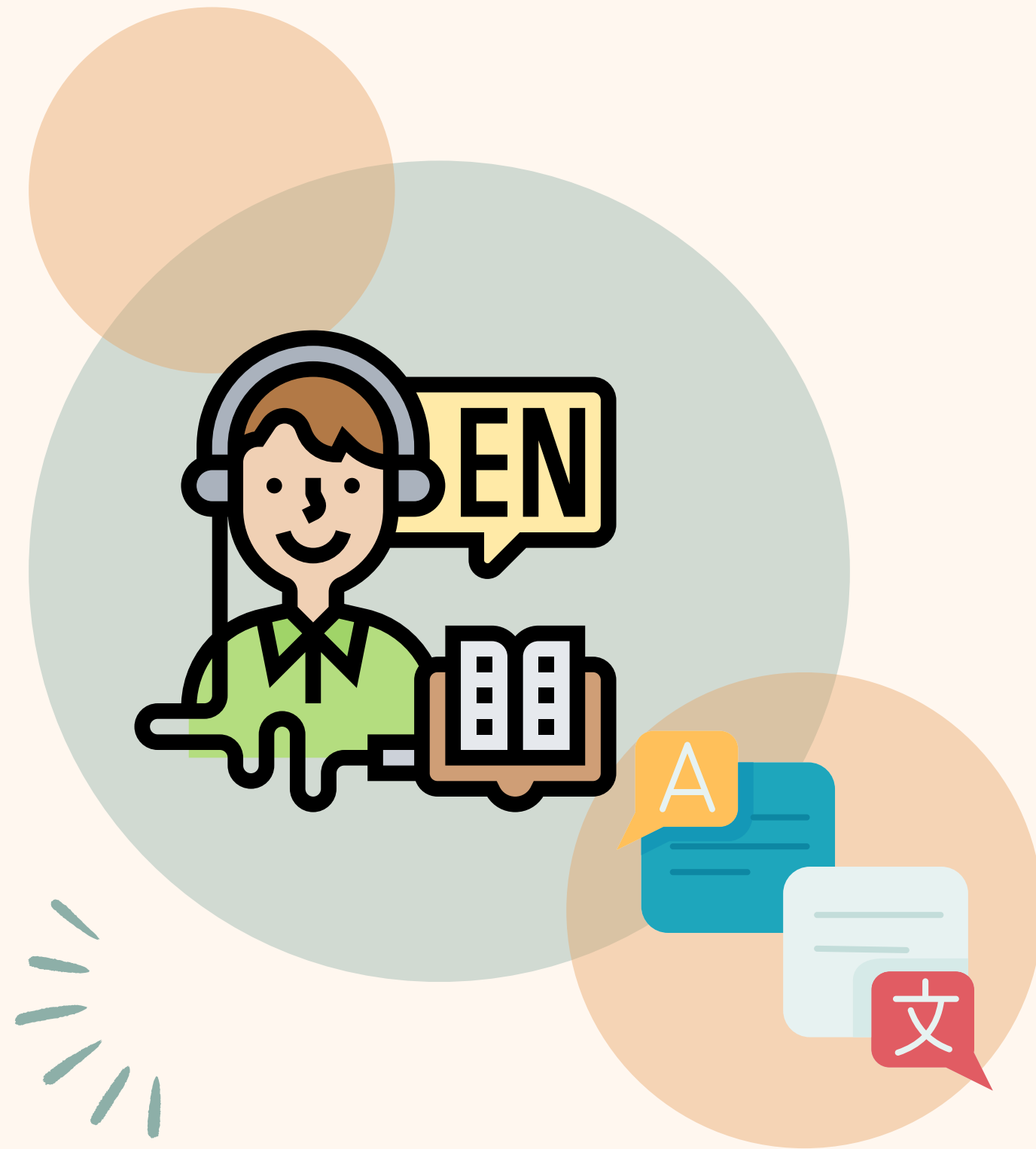


# Introduction



Hear Me is an application dedicated to helping deaf people with hearing disabilities. The application aims to facilitate their communication with government service agencies and other entities. It also promotes the removal of obstacles in communication and raises the quality of services provided to this category through instant communication linked to a sign language interpreter through professionals translators.

The application is characterized by converting sign language used by deaf individuals into written texts clearly and smoothly. The application can convert written texts into listenable audio, so that both deaf and hearing people can interact with each other easily, which helps in enhancing mutual understanding between individuals in society



# FUNCTIONAL REQUIREMENTS

## USER REQUIREMENTS:-

**1-The system must allow users to create an account and log in**

**2-The system must allow the creation of reports for entering user data**

**3-The system should display the translation menu and allow users to choose the language**

**4-The system must provide video call with sign language interpretation**

**5-The system must allow users to provide feedback (about the application)**

**6-The system must send notifications to users about the addition of a new language and important updates**

# SYSTEM REQUIREMENTS:-



**1.1 Users should be allowed to create an account and log in :** This process begins by selecting the type of user, whether they are a user with a hearing impairment or a regular user, then entering personal data such as (name, email, mobile number, gender, ...) and verifying the validity and presence of this data in the system when it is saved in the database. This process is done by sending an activation code to the user to confirm the account after ensuring the existence of the account in the database

**2.2 When the system creates reports for user data entry:** This means that the system collects and analyzes the data that users enter into the system. This data includes personal information such as name, age, address, and other information requested. Reports are generated containing summaries and statistics about this data, which helps in understanding the behavior of users within the system

**3.3 The system must display a translation list and allow users to choose the language:** Once an account is created in the application, the system must display a translation list that contains the available languages. The system allows users to choose the language they wish to use in the application. Once you choose the language, the application interface will change to display texts and content in the chosen language

**4.4 The system must provide a video call with sign language translation:** Before that, the type of user interface is determined based on the type of data entered for the user (normal - hearing impaired). Then the user initiates a video call in the application. The system provides the option of sign language translation or reading texts in the hearing-impaired user interface. The translated text is displayed directly on the screen during the call, while for the natural user, conversations are displayed via voice and text, which helps in understanding and exchanging conversations between two users

**5-5 The system must allow users to provide feedback (about the application):** The system allows users to provide their feedback by providing an interactive user interface that enables them to enter their comments. Users can write their comments in a dedicated text box on the screen, and then they can send those comments to be recorded and processed by the system. Afterward, the comments submitted are displayed on the main user interface or on a dedicated comments page, allowing other users to read and respond to them if they wish. In this way, the system can gather users' opinions and feedback to enhance their experience based on their suggestions

**6.6 The system should send notifications to users about adding a new language and important updates:** The system sends notifications to users regarding the addition of a new language and important updates. This means that the system informs users of any major changes in the supported languages or important updates they need to be aware of. This is done by sending instant notifications through the application or email, highlighting the new features that have been added or the improvements that have been made. The notification also includes steps that users can take to benefit from these changes and adjust settings according to their needs. In this way, the system helps users stay informed about all the new developments that impact their experience and use of the system

# NON-FUNCTIONAL REQUIREMENTS

## **1- Ease of Use:**

- The app should be easy to use and accessible to all users, including those with disabilities or difficulties in dealing with technology**
- The navigation within the app should be simple and clear, with a smooth and intuitive user interface design**

## **2- Reliability and Responsiveness:**

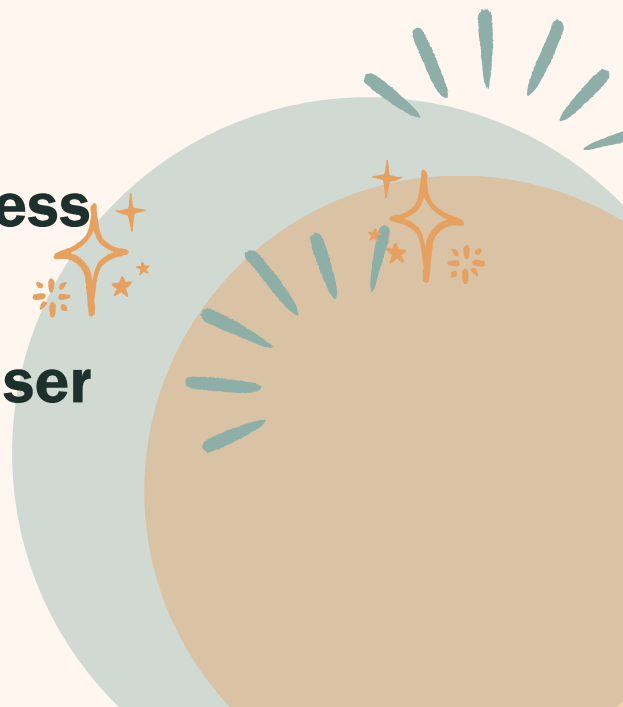
- The app should be reliable and operate consistently, without unexpected disruptions or downtime**
- The app should be highly responsive, with a short response time to meet the users' needs on time**

## **3-Privacy and Security:**

- The app should be secure and protect the user's data from any breach or leakage**
- Users should have the ability to control their privacy and the security of their data within the app**

## **2-Support and Communication:**

- There should be clear channels for technical support and communication with the developers to address any issues or inquiries**
- The app should receive regular updates to improve performance and add new features based on user feedback**



# SYSTEM UML MODELS



Use case



Activity Diagram



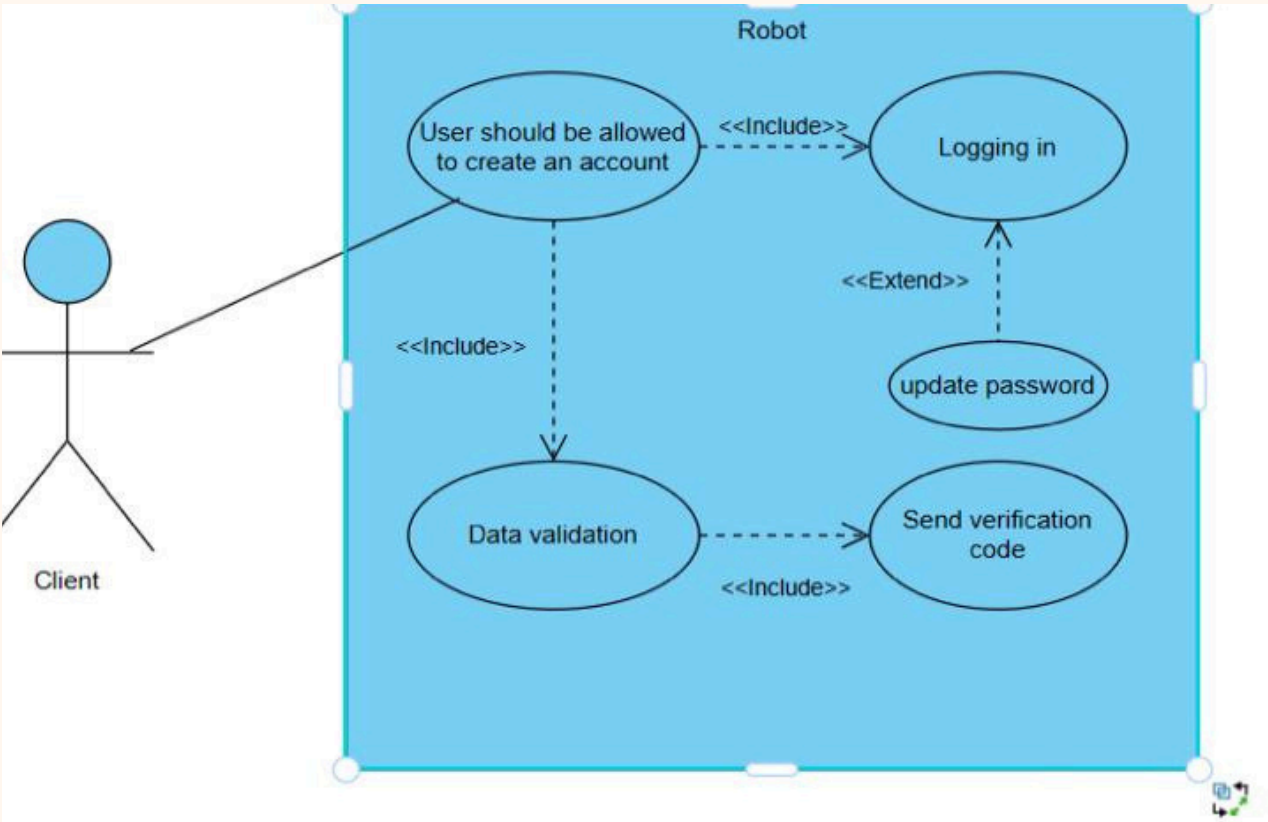
Calss Diagram



Sequence Diagram



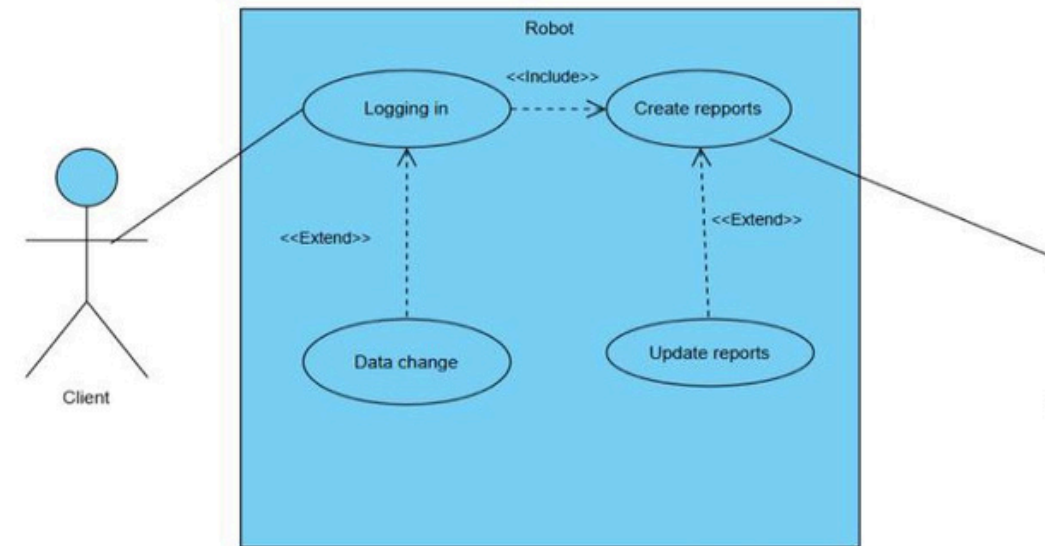
# CLASS DIAGRAM



client	Actors
The user must create an account in the system, and after completing the account creation, the validity of this data will be verified. When the data is verified, a verification code will be sent	Description
Create an account and verify the entered data	Data
The user creation process aims to identify the user and provide secure access to certain online services or applications	stimulus
After creating an account and logging in the user to the system, the system will be able to direct the user to the home page or its control panel, where he can access the functions and features assigned to him such as viewing account information, modifying data, performing certain operations, and interacting with the system in general	Response







Client, managers      Actors

Once the user logs in, a comprehensive report will be generated to save all his data. Any modification to user data will result in updating the report. The manager does the complete management of these reports

Entered data: User data (name, email, password, etc.)      Data

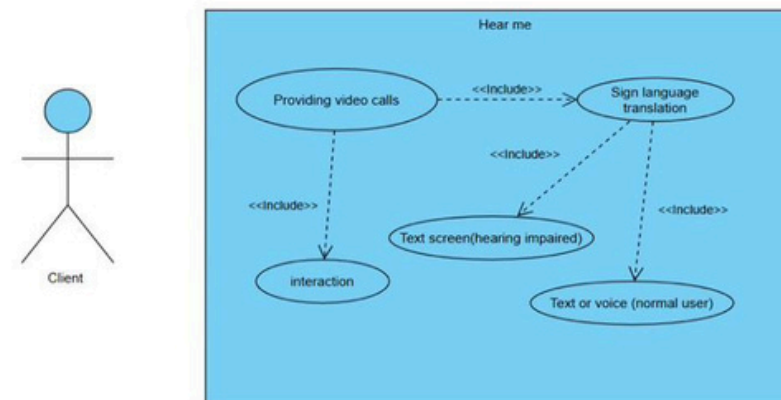
Creating these reports is to document and track user data, ensuring that information is updated accurately and efficiently. Facilitating the management and follow-up of user data by the manager

Stimulus

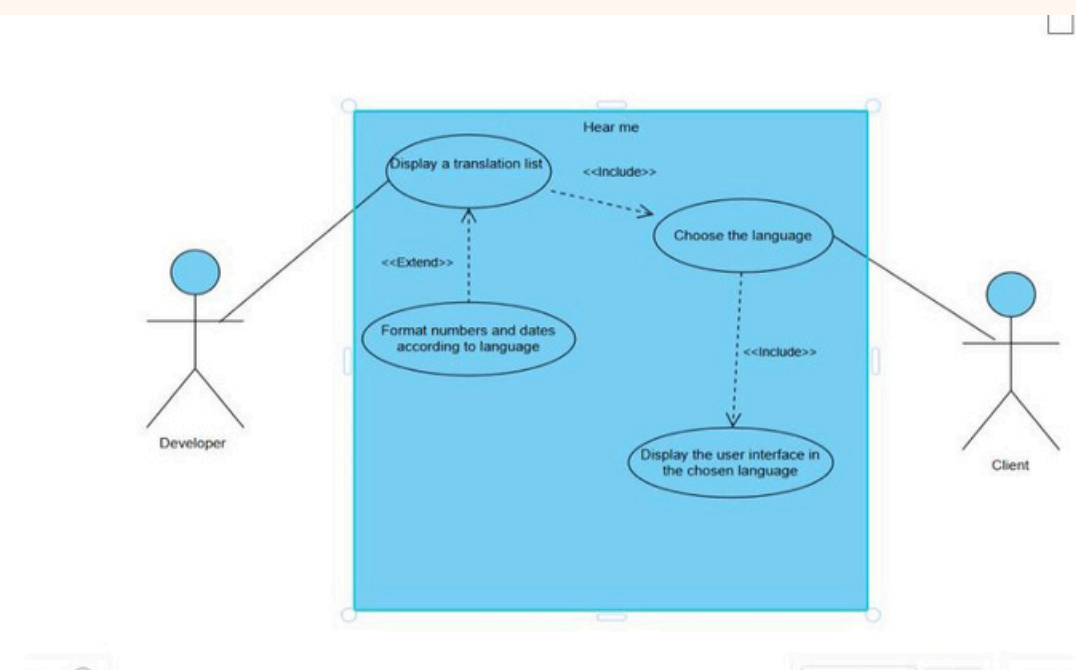
After generating the reports, the system will be able to respond to them by providing an interface for the manager to view and update them, as well as to make decisions based on the information in the reports

Response

The system must provide a video call with sign language translation



Actors	Client
Description	The system will provide a video communication service that allows interaction between users. Signs will be translated into audio and text will appear on the video for normally speaking and hearing users, while a text screen will appear on the video for deaf users
Data	Signs, texts, and sound
Stimulus	Providing a comprehensive means of communication that allows users to interact smoothly and effectively, regardless of their linguistic and auditory needs, thus enhancing communication between individuals in a manner appropriate to them
Response	The system will provide a video calling service with sign translation, text display, and audio to enhance the communication experience for all users



Developer, Client      Actors

The developer will display the list of languages available in this application, and then the customer will choose the language that suits him. After completing the selection of the language, the application will be displayed in the language that the customer chose

List of languages available in the application      Data

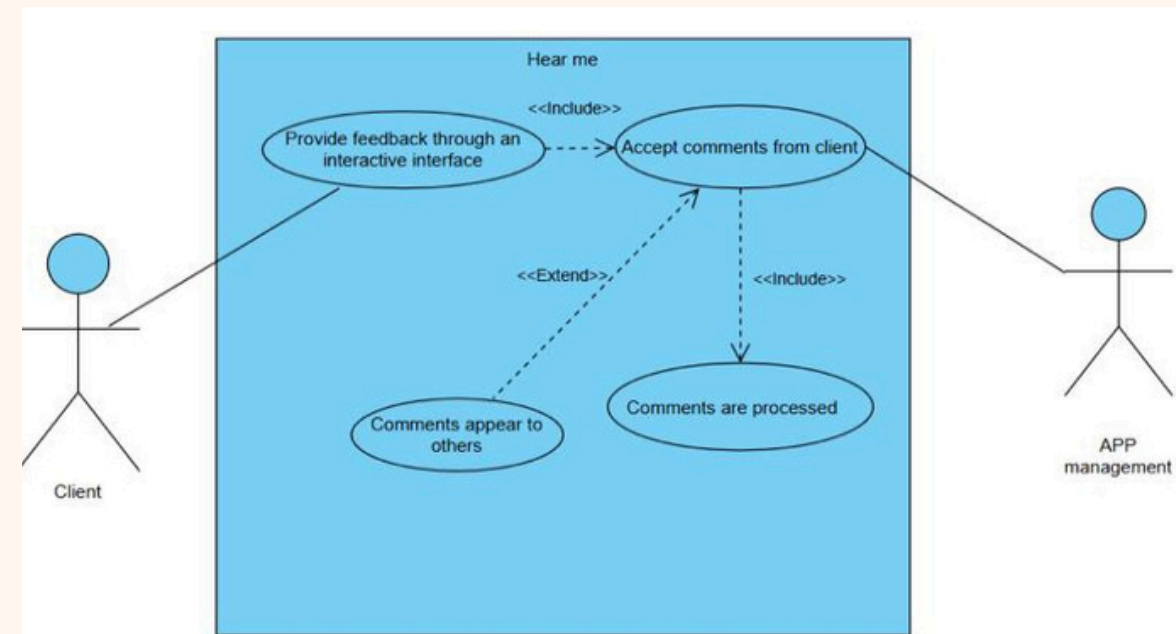
Provide a comfortable and appropriate user experience for users from different cultures and languages, helping them easily interact with the application and better understand its content

The system will respond to the customer's choice of language by changing the display and content in the application to match the chosen language, making it easier for the user to browse and use the application efficiently

Stimulus

Response





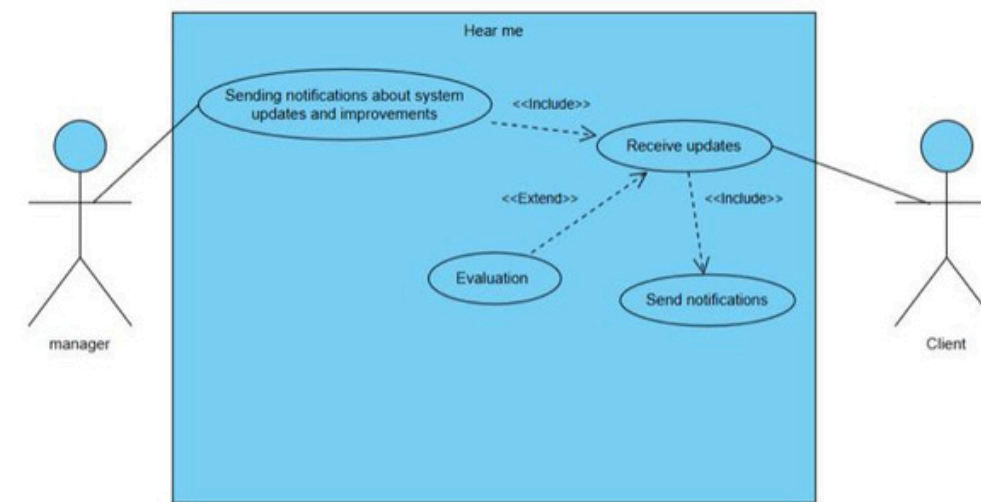
Client, App management Actor

The system will provide an interactive interface for Description  
users to provide their feedback and comments about  
the application. Application managers will then  
review and process this feedback to improve the  
system

Information provided by users in the form of Data  
reviews and comments about the application

Enable users to provide feedback and comments Stimulus  
about the application, and then improve and  
develop the system based on this feedback to better  
meet user needs

The system will respond and provide an interactive Response  
interface for users to provide feedback about the  
application. Then, it allows the application  
management to accept this feedback and improve  
the system



Manager, Client      Actors

The system will respond and provide an interactive Description  
interface for users to provide feedback about the  
application. Then, it allows the application  
administration to accept this feedback and improve  
the system

System updates, and notifications that the customer      Data  
receives regarding the application update

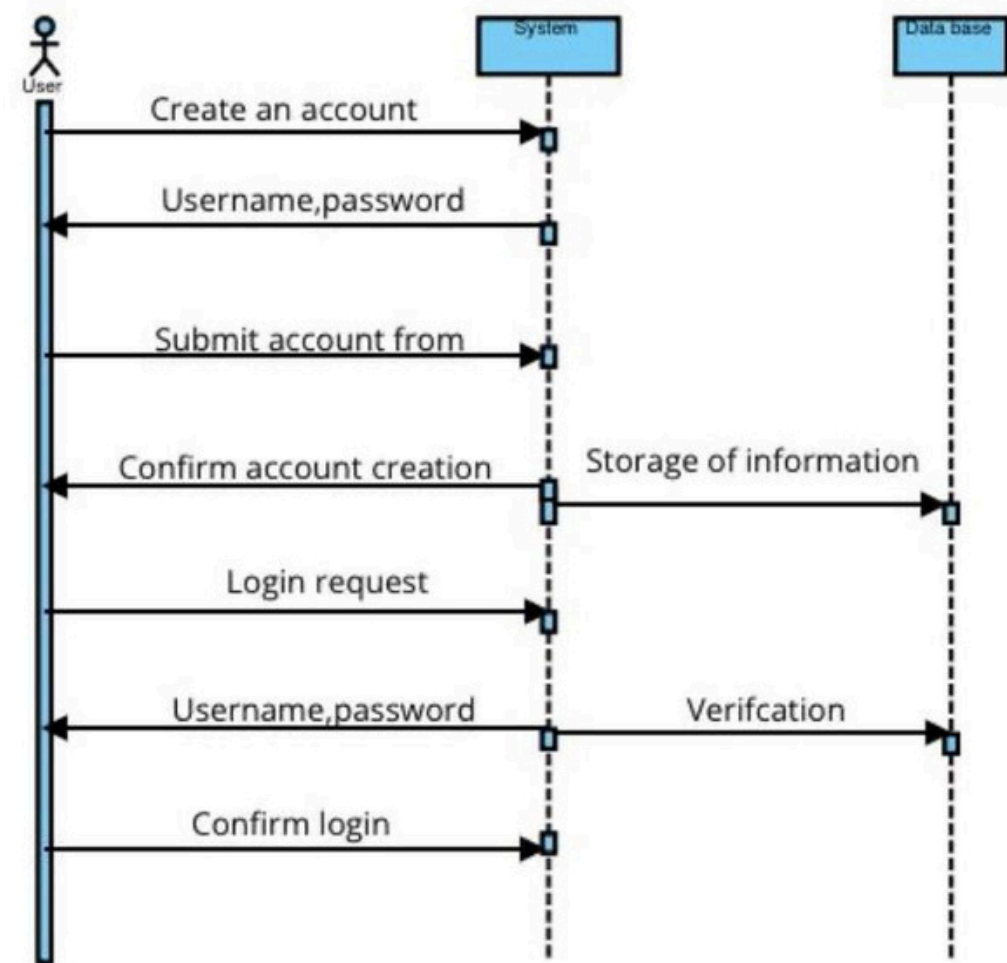
Improving user experience through system updates      Stimulus  
.and ensuring better quality

The system will respond by providing notifications      Response  
to customers about updates

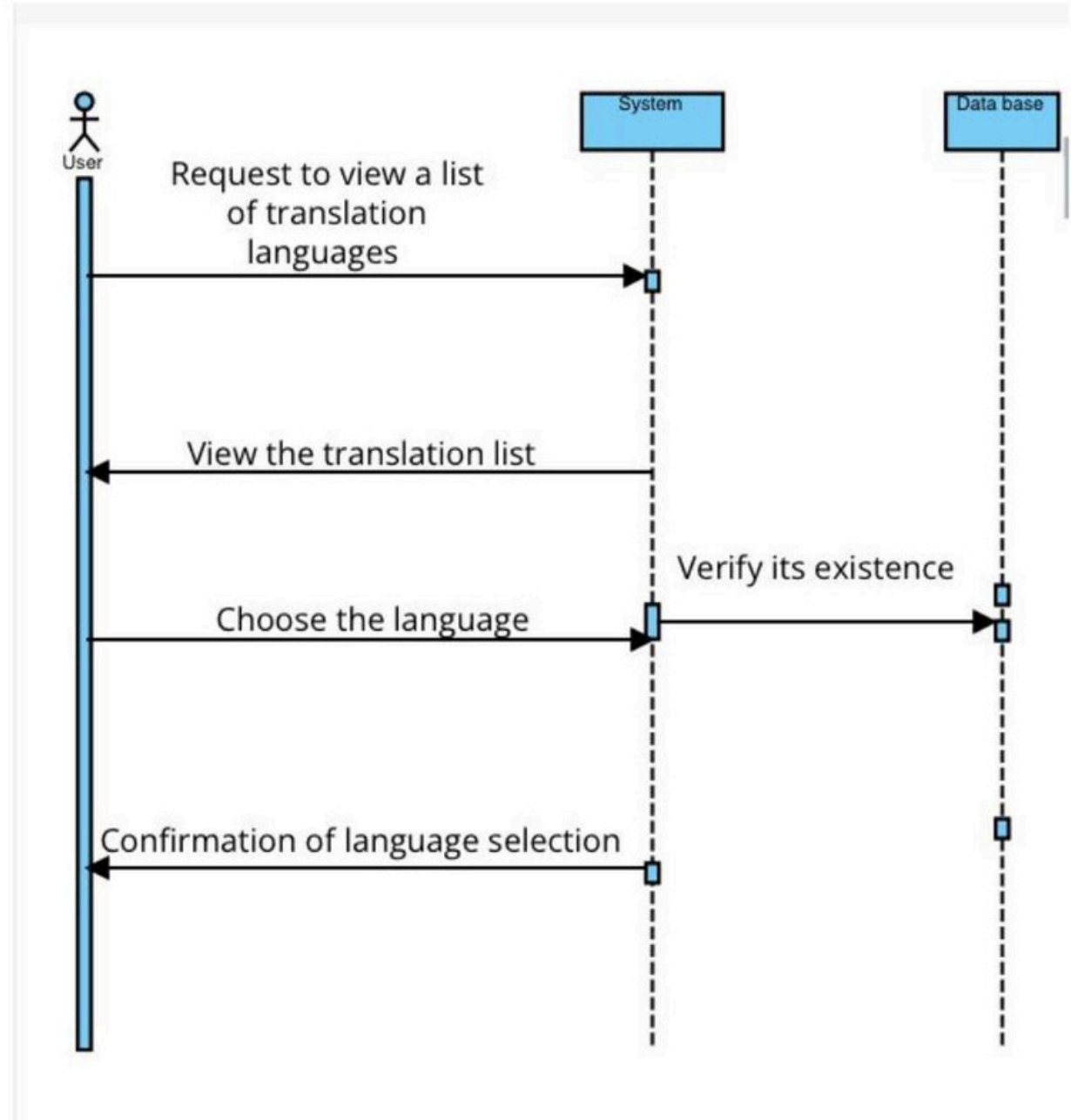


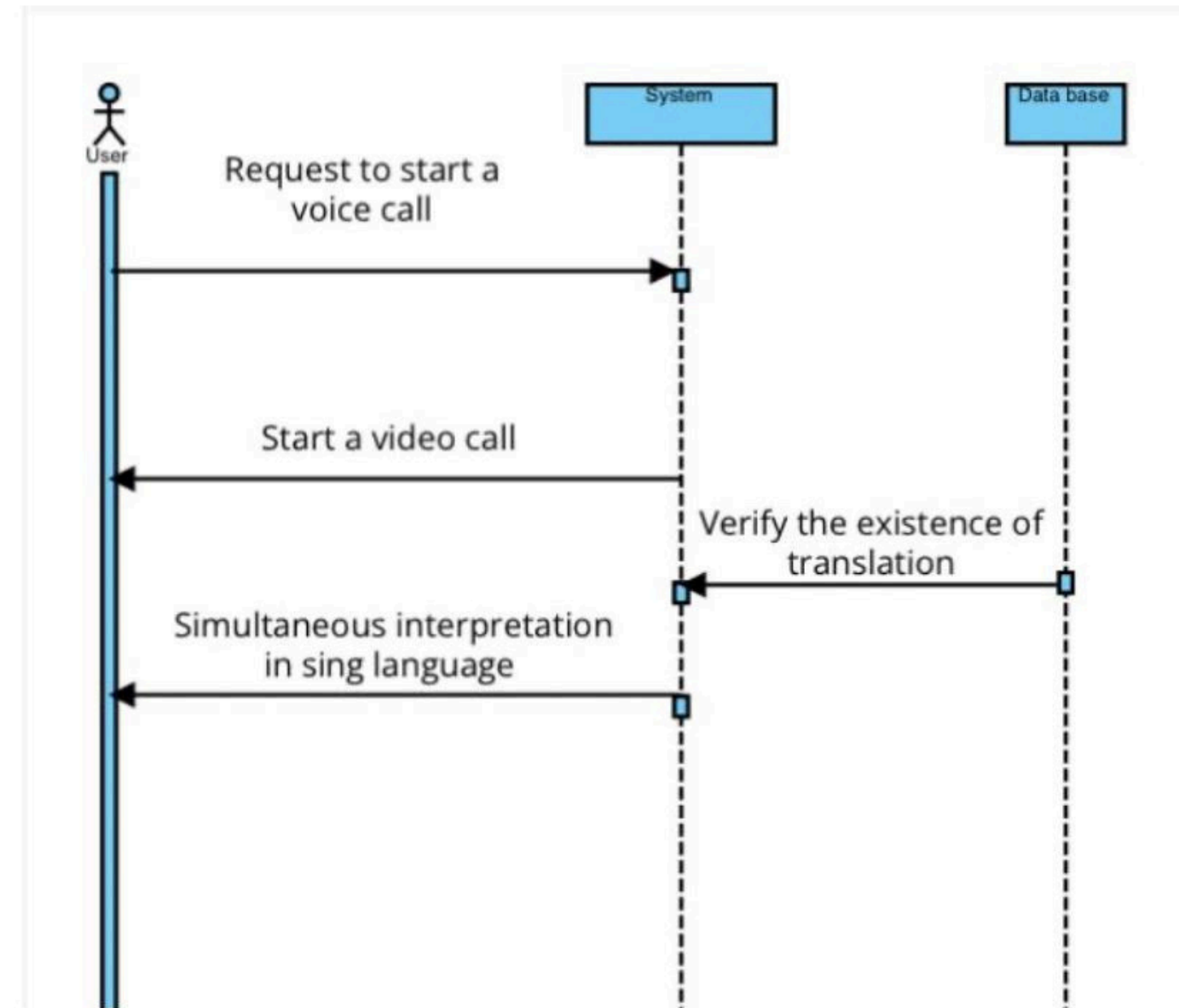
# SEQUENCE DIAGRAM

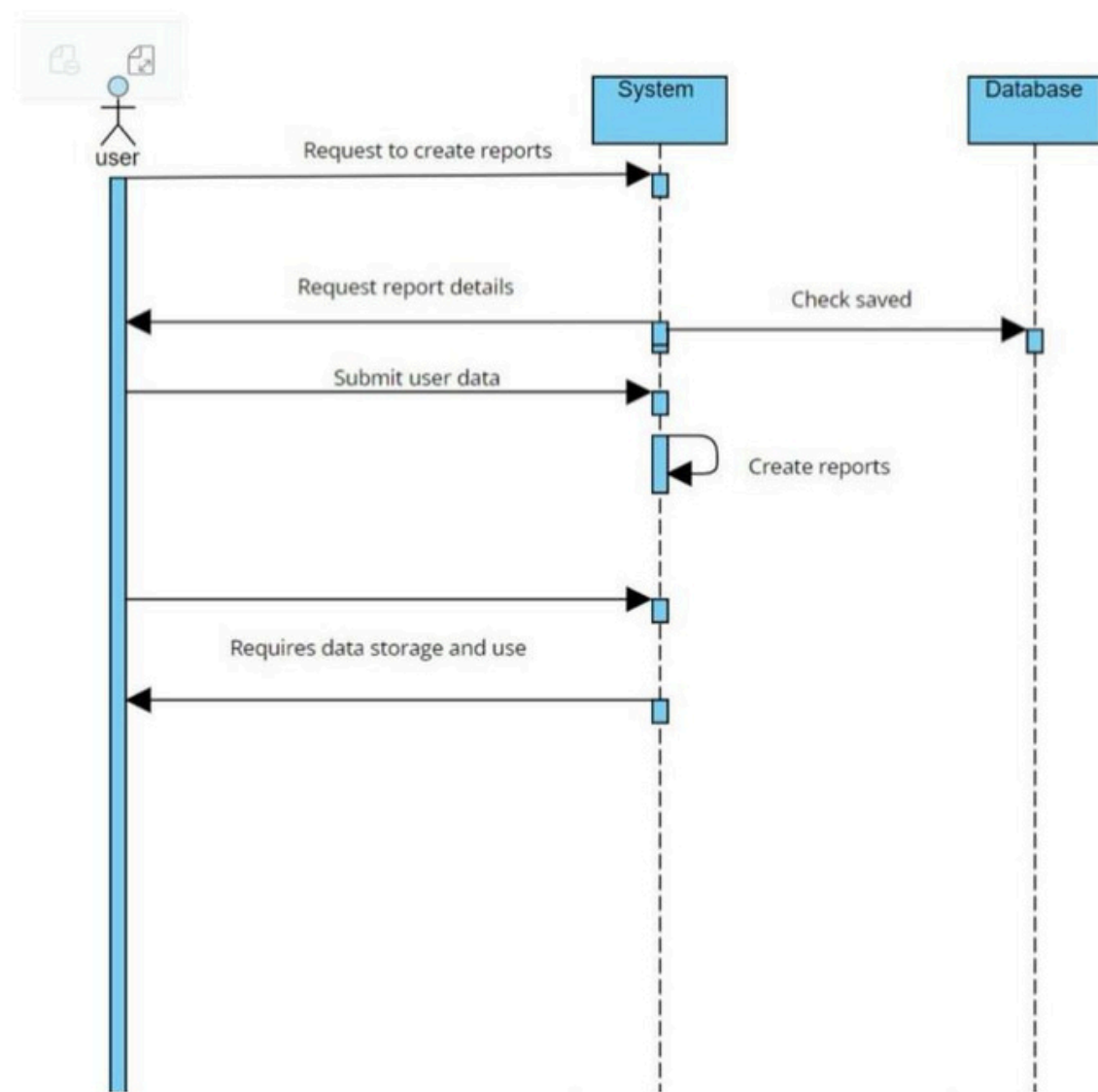
:Sequence diagram

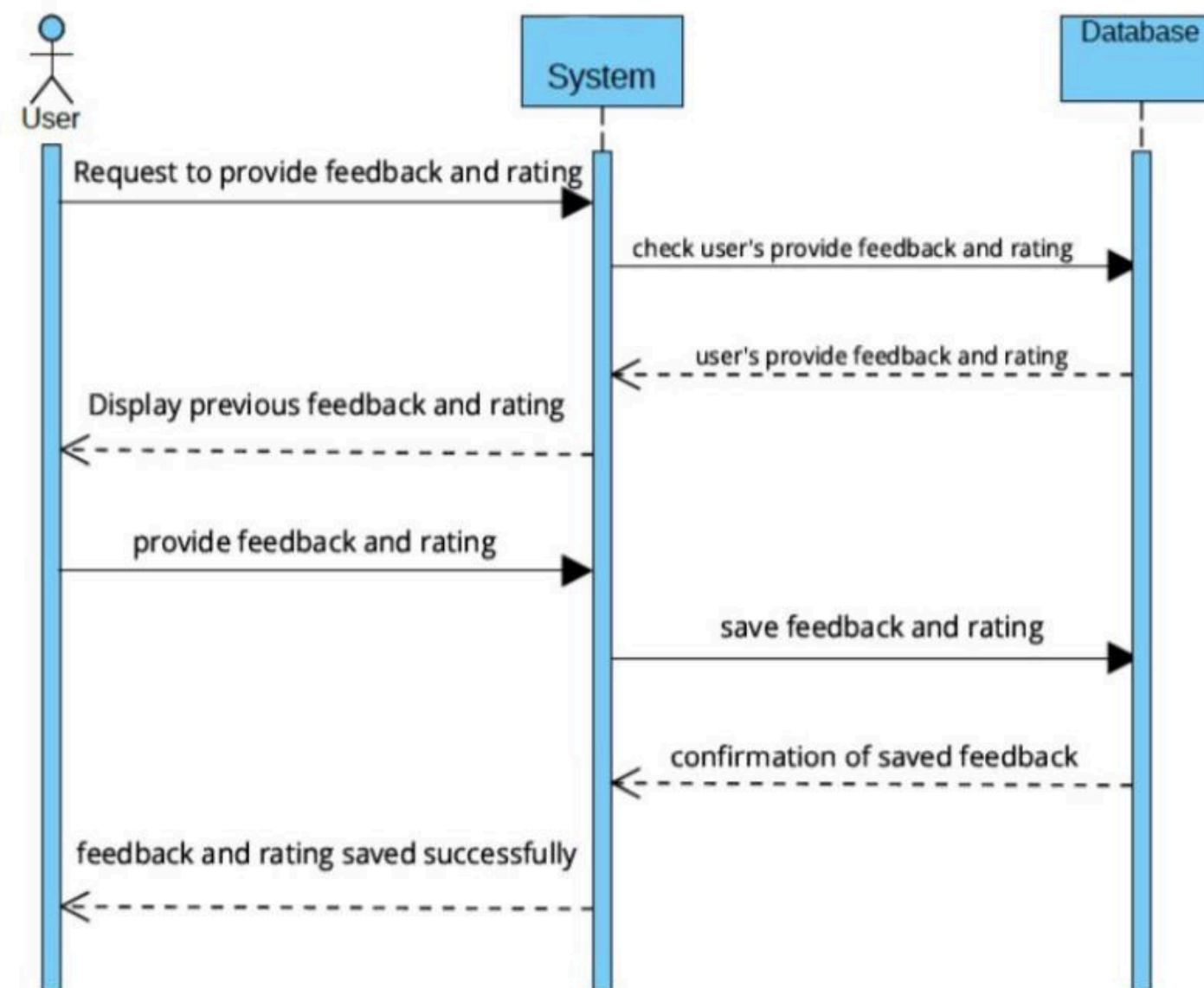


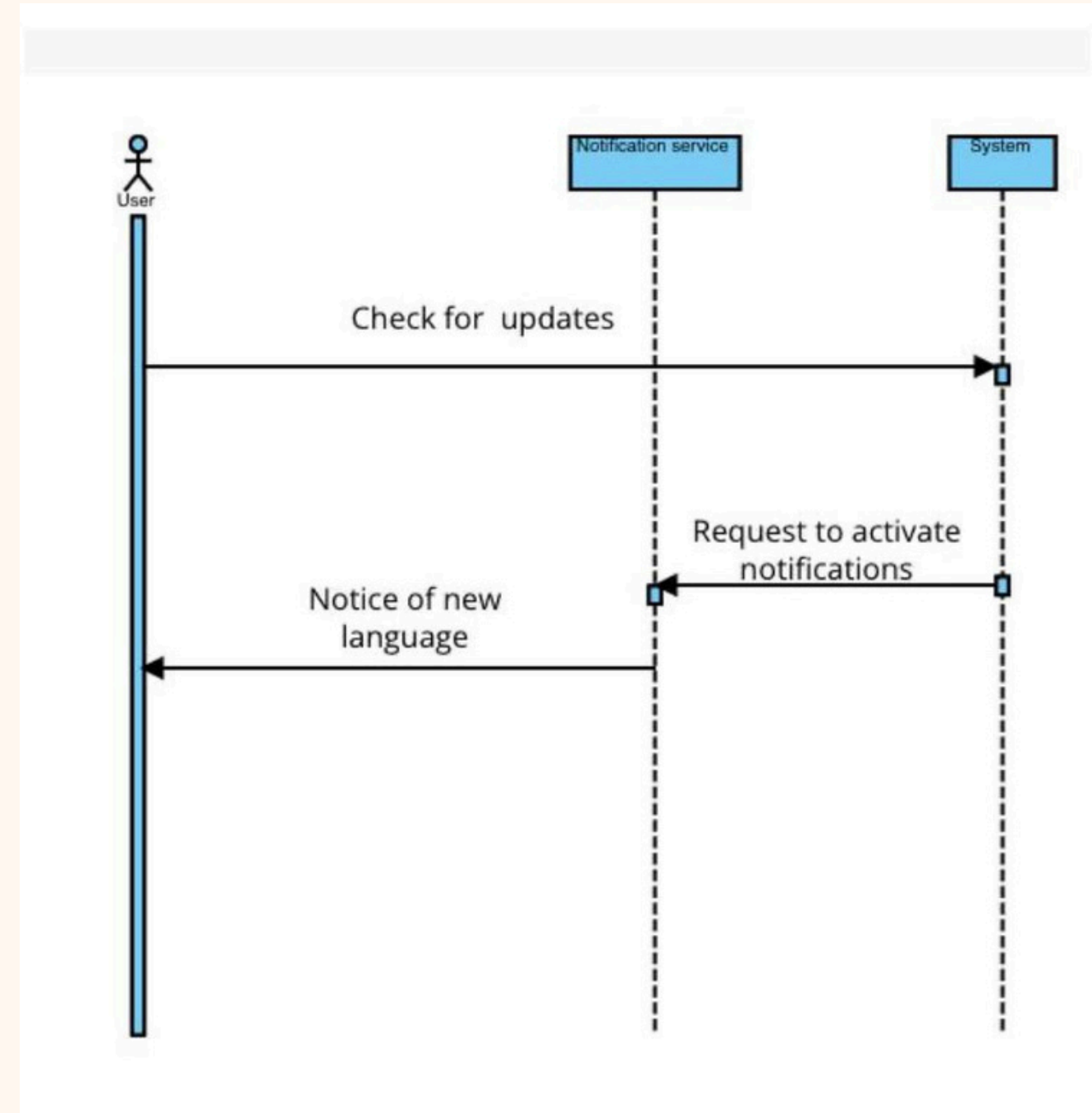






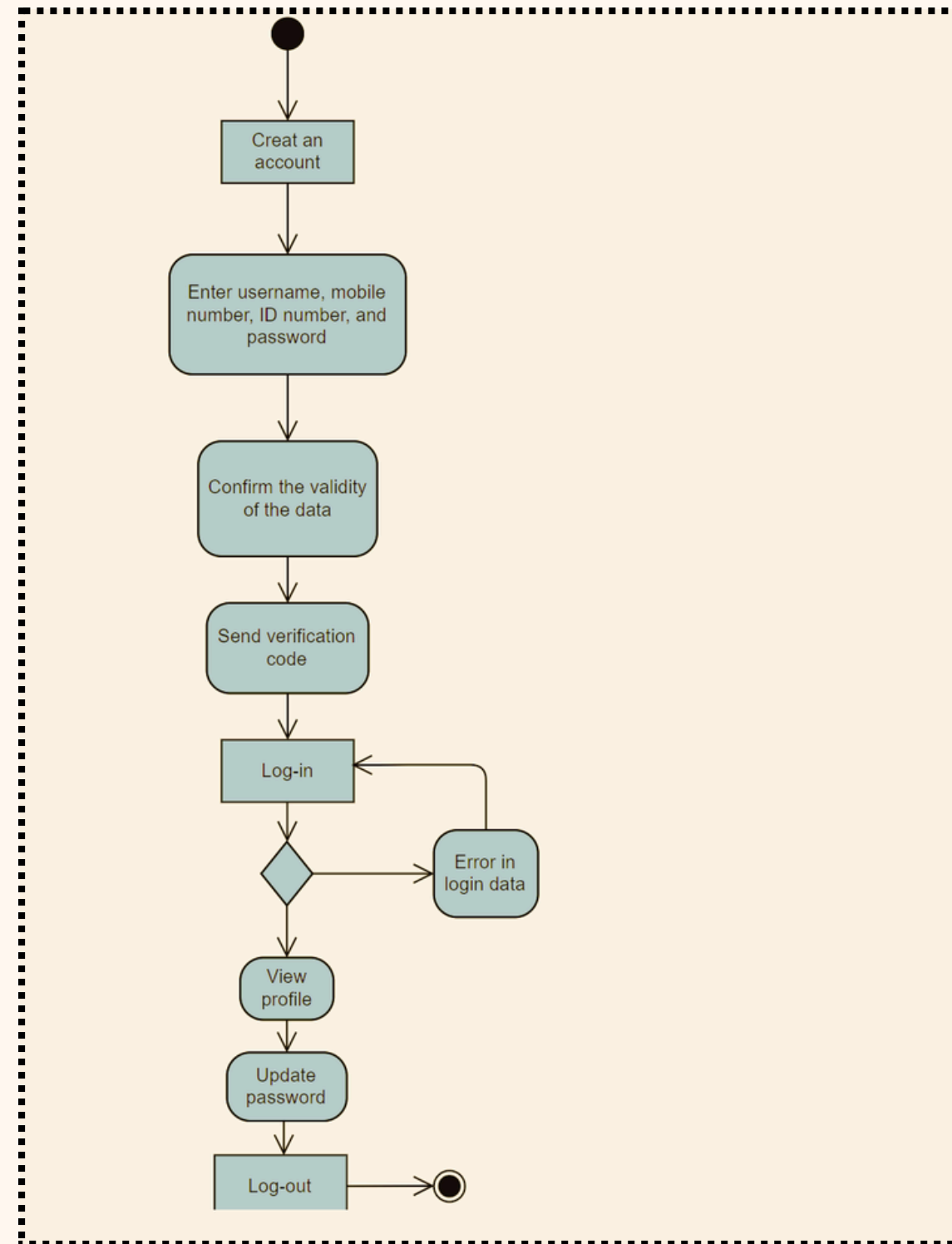






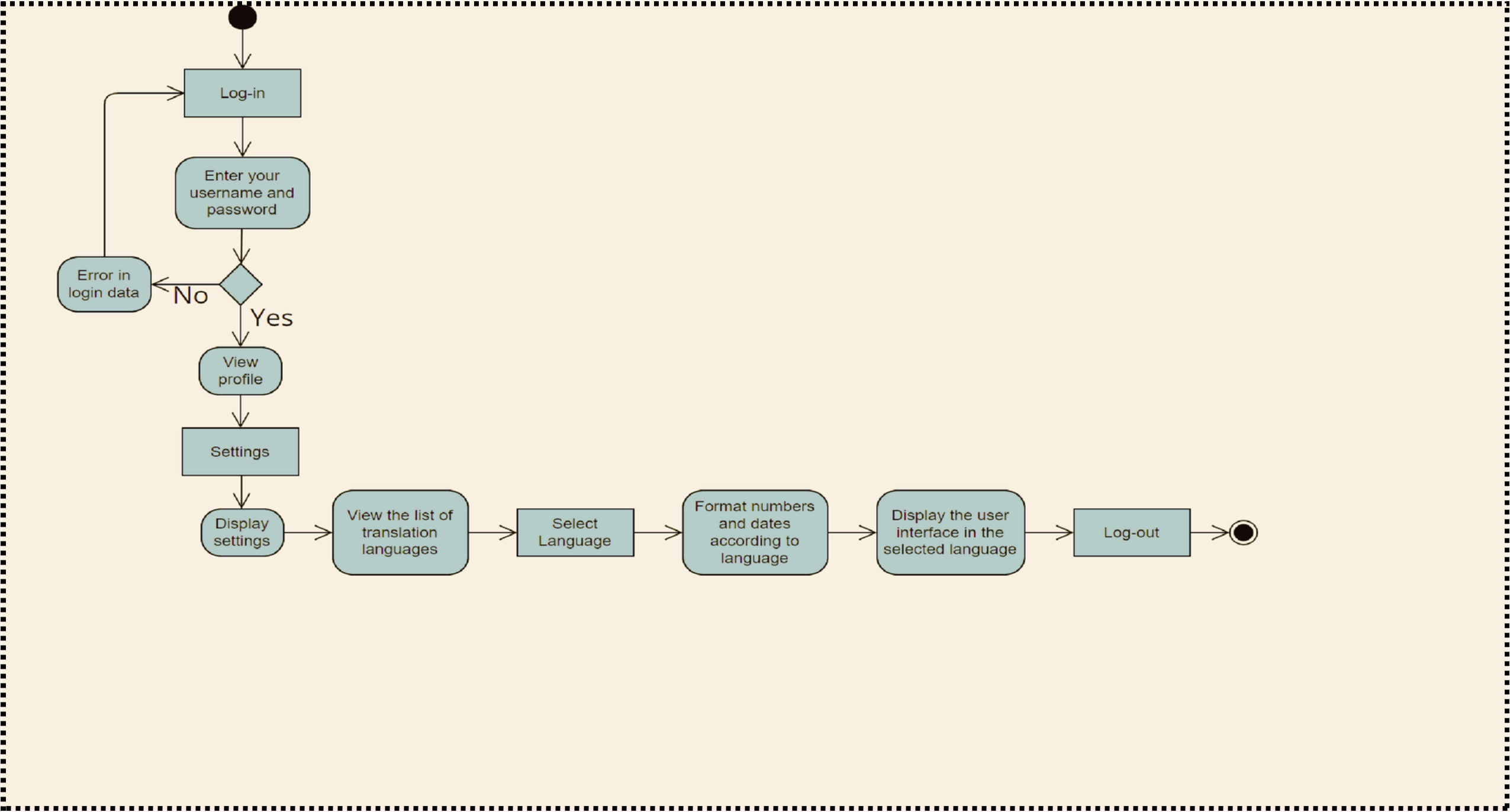
# ACTIVITY DIAGRAM

-DIAGRAM 1

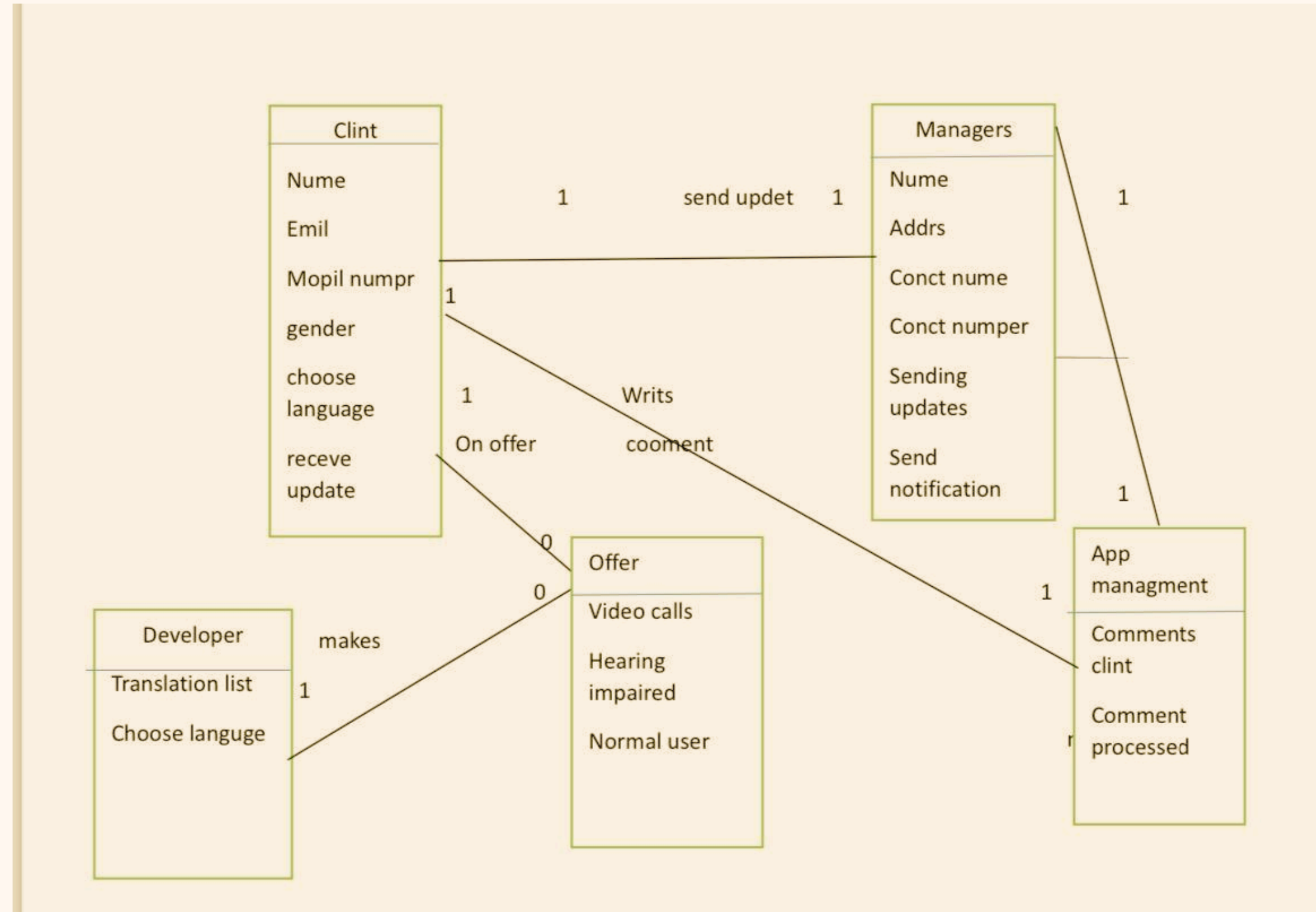




-DIAGRAM 2



# CLASS DIAGRAM



THANK  
*You*

