



PROJECT NAME: [Ghaya Application]

PREPARED BY:

[رغد حسن المسعري]

[إبرار الحسن المحمودي]

[دانه أحمد باز غيفان]

[زينب محمد الزبيدي]

[ندى محمد الزبيدي]

[اريام عقيل الزبيدي]

PHASE: 1

1.1 INTRODUCTION:

The first stage contains a definition of the problem, stakeholders, user requirements, system requirements, and non-functional requirements of the system.

1.2 PROJECT DESCRIPTION AND PURPOSE:

The application text reading for blind individuals helps overcome challenges in reading written texts, accessing essential information, reading their own writings, achieving independence, and experiencing a reading process similar to sighted individuals. The application can also rely on volunteer assistance, granting them the freedom to choose how they provide support.

1.3 STAKEHOLDERS:

1. Blind individuals
2. Visually impaired individuals
3. Children
4. People with disabilities
5. volunteer

1.4 FUNCTIONAL REQUIREMENTS:

Write the Functional Requirements of proposed system in terms of User Requirements and System Requirements

1.4.1 USER REQUIREMENTS:

1. Users will register in application.
2. Users can log in using fingerprint and facial recognition.
3. Users can choose either the camera icon or the volunteer icon.
4. Users can capture text, in the camera icon.
5. Users can select the volunteer icon and choose from available volunteers.
6. Users can call the volunteers.

1.4.2 SYSTEM REQUIREMENTS:

- 1.1 personal info
 - 1.2 System will make users choose to be regular user or a volunteer.
 - 1.3 The system must include the volunteer for the volunteer field.
-
- 2.1 The system must allow the user to log in via the face fingerprint and the fingerprint.
 - 2.2 The system must allow the volunteer to log in via e-mail, the eight-box password and username.

3.1 The system must be asked to choose one of the two icons (the camera, the volunteer), after registration of the user.

4.1 The system must if the user chooses the camera icon, the user is directed towards the text to be captured.

4.2 The system must after taking the image. The text is converted into an audible text.

5.1 The system must provide the names of the volunteers and read it to the user, if the volunteer icon is chosen.

5.2 The system must send user requests to the volunteer.

6.1 The system must allow the contact box to communicate between the user and the volunteer.

6.2 The system will show a message of thanking both the user and the volunteer for choosing the application after the end of the call.

1.5 NON-FUNCTIONAL REQUERMENTS:

1. The application should be capable of reading texts with high accuracy and converting them into understandable text in a correct manner. Errors in speech recognition and interpretation should be avoided.
2. The application text reading should be done quickly and efficiently to provide a smooth user experience. There may be a need to improve the performance of the application to ensure its responsiveness and optimal use of system resources.
3. The application the application will handle Personal data and user information with confidentiality and security. The application should be secured through encryption and the implementation of appropriate security practices.

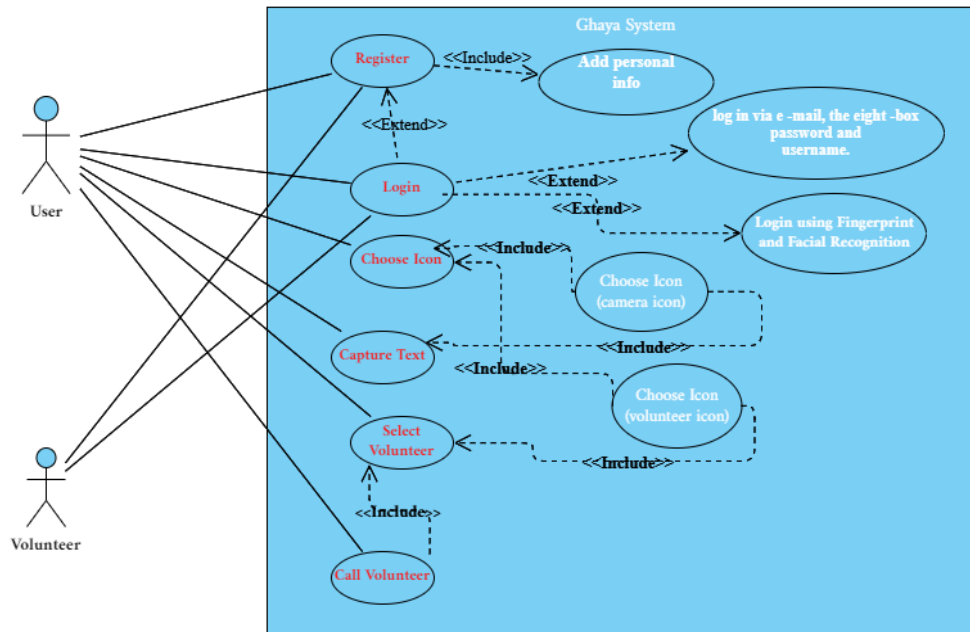
PHASE: 2

2.1 INTRODUCTION:

The second stage contains a set of diagrams that provide a model of the project in a detailed and clear way for the system's operations to be used when needed.

2.2 SYSTEM DIAGRAMS:

2.2.1 USE CASE DIAGR



2.2.2 USE CASE DESCRIPTION

System	Ghaya System
Use Case	Register
Actor	Users and Volunteers
Description	<ul style="list-style-type: none">Users and volunteers, they will register in the application and add personal info.
Preconditions	none
Postconditions	Users and Volunteers, they registered in the application.

System	Ghaya System
Use Case	Login
Actor	Users and Volunteers
Description	<ul style="list-style-type: none"> • Users log in using fingerprint and facial recognition. • Volunteers log in via e -mail, the eight -box password and username.
Preconditions	Users and volunteers, they registered in the application.
Postconditions	Users and volunteers, they logged in successfully.

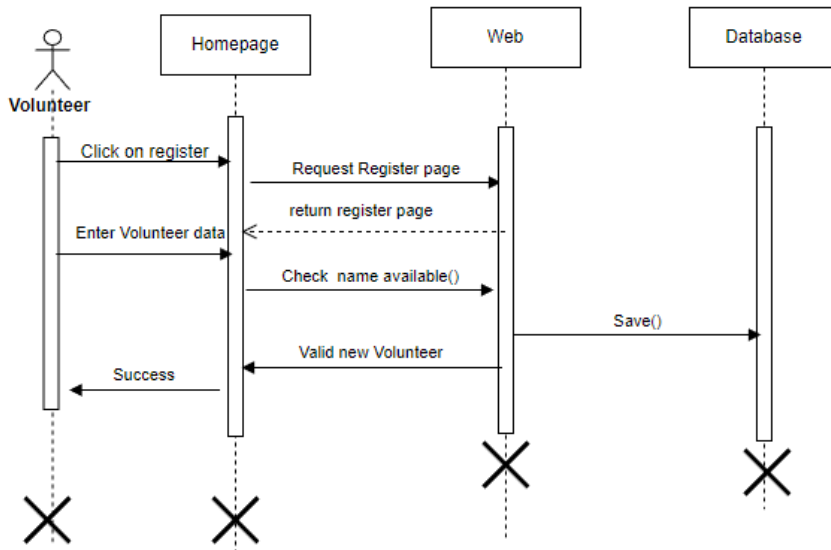
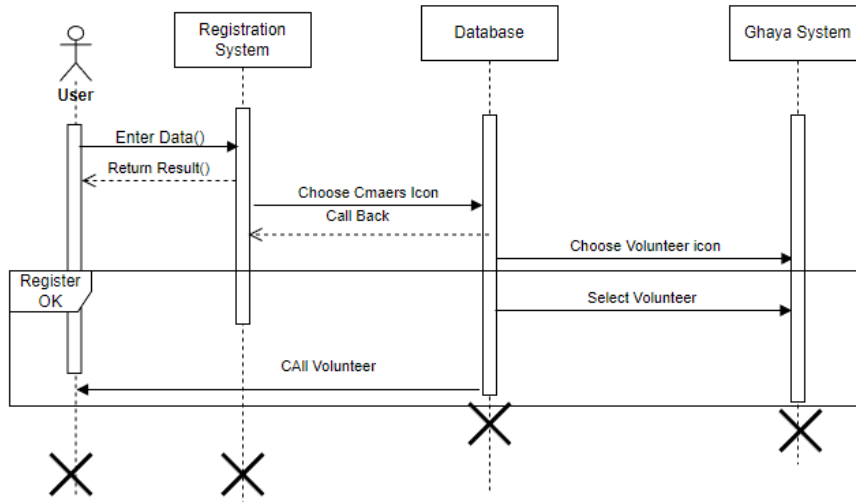
System	Ghaya System
Use Case	Choose Camera Icon
Actor	Users
Description	<ul style="list-style-type: none"> • Users can choose either the camera icon or the volunteer icon.
Preconditions	User is logged in successfully.
Postconditions	User is presented with the chosen icon.

System	Ghaya System
Use Case	Capture Text
Actor	Users
Description	<ul style="list-style-type: none"> • Users can capture text using the camera icon.
Preconditions	User has chosen the camera icon.
Postconditions	Text is captured and displayed to the user.

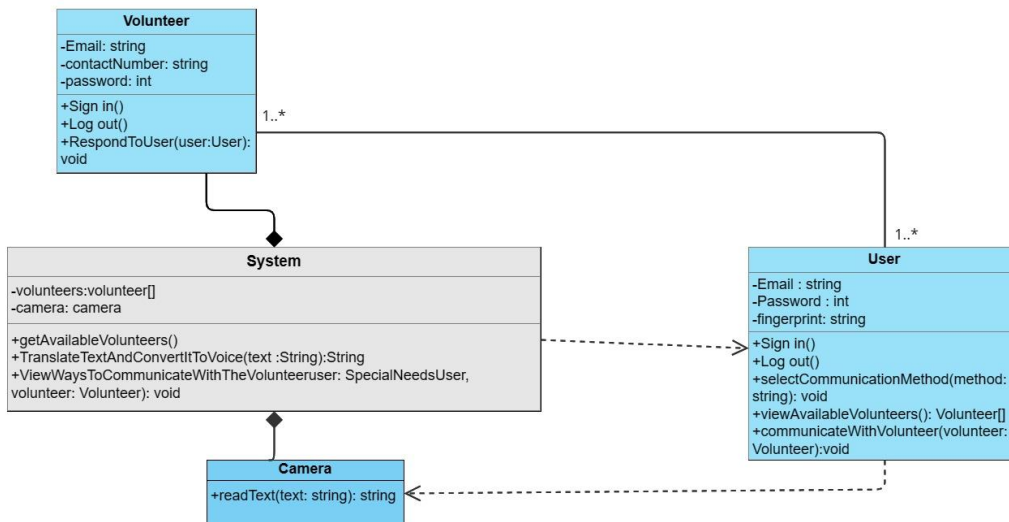
System	Ghaya System
Use Case	Choose Volunteer Icon
Actor	Users
Description	<ul style="list-style-type: none"> • Users can choose from available volunteers using the volunteer icon.
Preconditions	User is logged in successfully.
Postconditions	User is presented with a list of available volunteers.

System	Ghaya System
Use Case	Call Volunteer
Actor	Users
Description	<ul style="list-style-type: none"> • Users can call the selected volunteer.
Preconditions	User has chosen a volunteer icon and selected a volunteer.
Postconditions	Call is initiated to the selected volunteer.

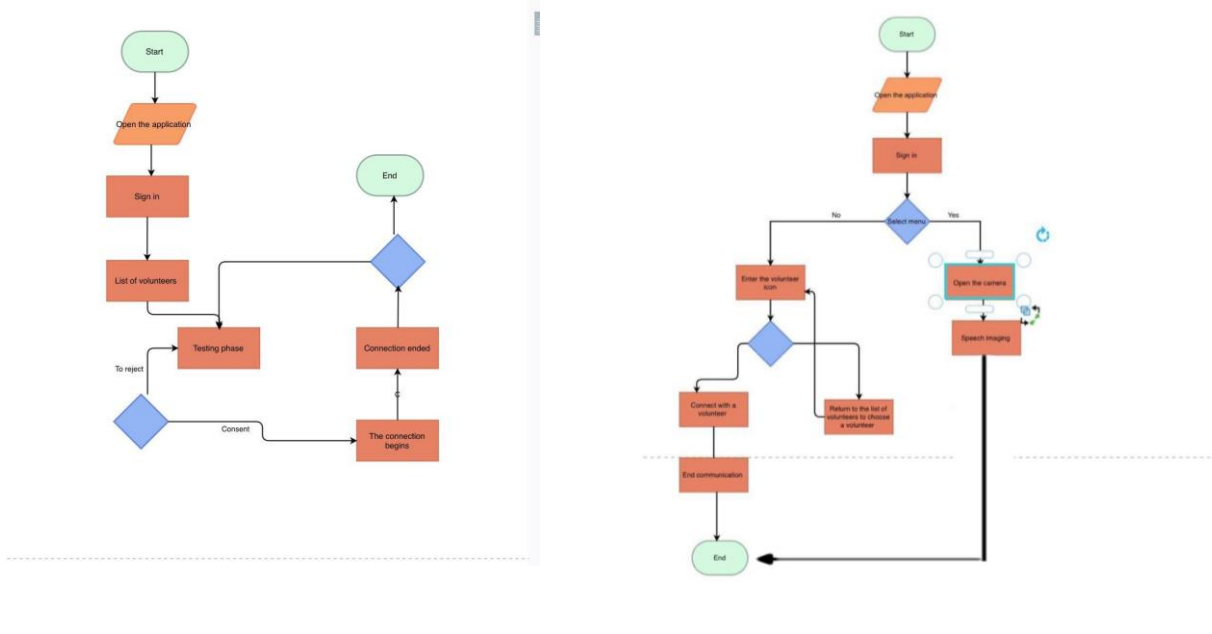
2.2.3 SEQUENCE DIAGRAM



2.2.4 CLASS DIAGRAM



2.2.5 ACTIVITY DIAGRAM



2.3 CONCLUSION:

- An application that helps blind people meet their special needs.
- Stakeholders include the blind, visually impaired, and volunteers.
- The user's requirements include logging in, creating optional icons, transcribing texts and converting them to audio text.
- We used diagrams to clearly detail the processes used in the application.

2.4 FUTURE WORK:

- One of the future works is to develop the application to a global scale and expand the scope of the application to serve a larger number of users and improve the quality in terms of creating other additional operations.

REFERENCES:

1. <https://online.visual-paradigm.com/>
2. <https://www.wrike.com/blog/what-is-a-use-case/#What-is-a-use-case-model>