A

SYNOPSIS

ON

**Organ Donation Management System (ODMS)**

Submitted in partial fulfillment of the requirement for the award of degree of

**BACHELOR OF ENGINEERING**

**IN**

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**Abstract**

The **Organ Donation Management System (ODMS)** is developed mainly for general hospitals (GH), clinics and other health centers to manage the donor registration and user maintenance.

The public can retrieve information about organ donation through this desktop application. People who are interested in organ donation can register themselves through this system. The application will be processed by the administrator and each donor will receive feedback about their application status. The donor can visit specified medical centers to perform a medical check-up or can ask for a medical assistance at home.

Only administrator has the authority and privileges to print organ list report and total donation report according to district from this system. An analysis study has been done based on the current manual system and all the problems statements and requirements have been identified.

Moreover, ODMS is three tier architecture systems which involve client tier, business tier and database management tier. The interfaces for ODMS have been designed according to the requirement and needs of the current market.

This Online Organ Donation Management System will help to improve the current situation and overcome the problems that arise nowadays.

1. **Introduction:**

The **Organ Donation Management System (ODMS)** is developed mainly for general hospitals (GH), clinics and other health centres to manage the donor registration and user maintenance.

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This Online Organ Donation Management System will help to improve the current situation and overcome the problems that arise nowadays.

1. **Objective and scope of project:**

Organ transplantation involves a complex, collaborative set of interactions among patients, family members, healthcare professionals, organ procurement and transplant coordinators, the hospital where the donation occurs, the organ procurement organization (OPO) that facilitates the acquisition and distribution of organs, and the transplant centre. Thus the ODMS comes into play.

* The Primary objective of ODMS is to facilate better and efficient communication between organ donor, hospitals or general clinics, and the recipients of organs. ODMS serves as a unique platform for organ donation.
* The ODMS objective is to be patient centred-providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.
* It will also help to promote organ donation between willing individuals and to help general hospitals to ensure legal operation of both organ reception and implantation.

**Scope:**

The user can register them for organ donation and help the society for better cause.

The organ precipitant’s can have better organ precipitation facilities.

The organ donation process is made effortless and efficient. It also removes tedious works required during user registration.

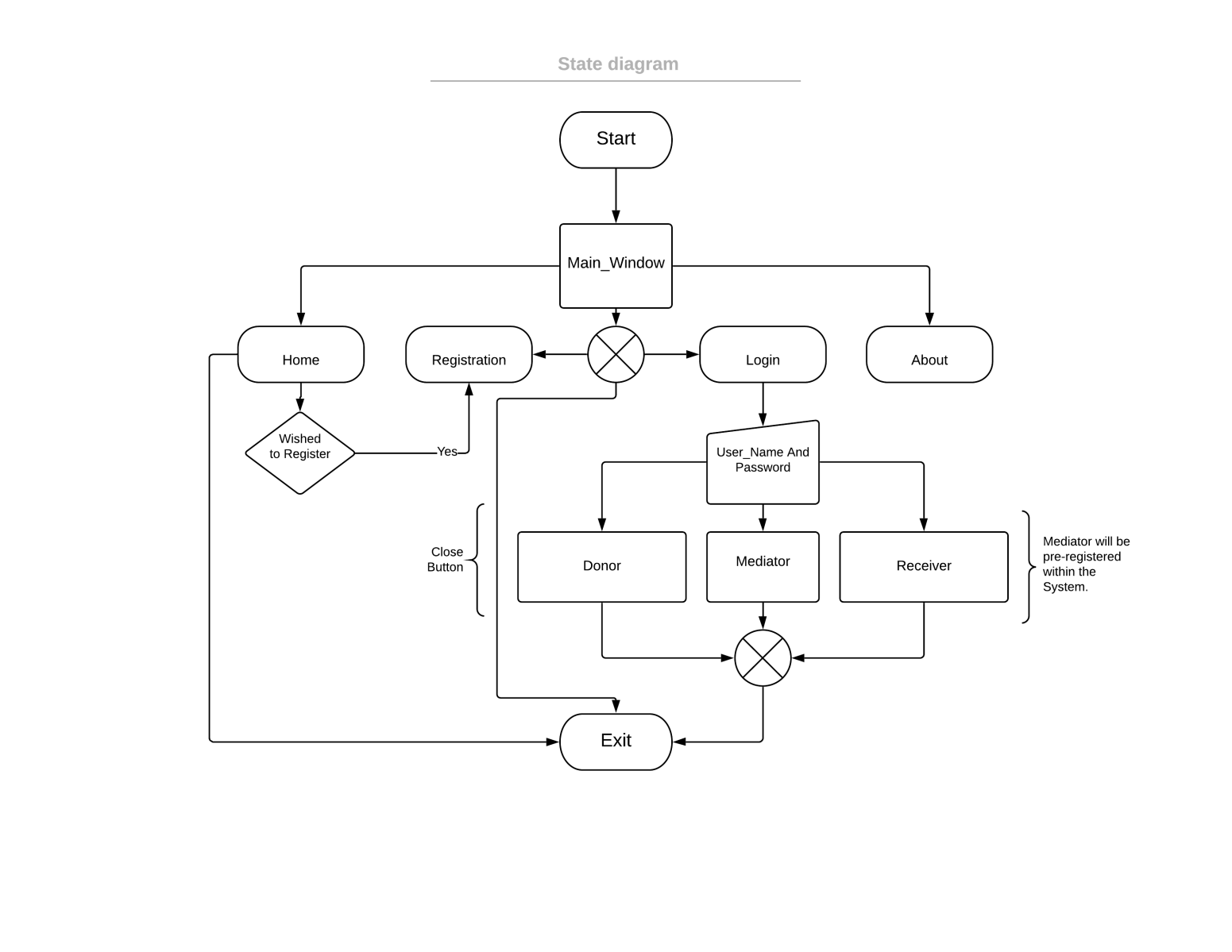


Fig: State Diagram of developed application.

1. **Methodology:**

Proposed Plan of Work (modules):

There are 3 major modules in ODMS as:

1. Registration:

In this module the registration of both donor and receiver will we carried out. Each user will get their unique Id type which they will use to log-in to system.

2. Login:

In this module the user can log into his/her profile, carry out periodic updates, and modify profile. The log-in Id will be one provide during the profile registration.

The login module is further divided into three sub modules.

The modules to pop up will be defined by the log-in Id type.

2A: Donor login:

This module will allow updates to the donor profile.

The user can report any recent updates to his medical conditions.

2B: Receiver login:

This module will allow updates to the receiver profile.

The hospitals, mediators will have partial control over such profiles.

2C: Mediator login:

These profiles will be internally generated in the system.

Such profiles will not have any registration platform.

Mediator could be hospitals, GC, governing bodies.

1. **Application:**

The ODMS can be implemented in various sectors such as:

Hospital management system where the record section can keep organ transplant

data in secure state.

Government Agencies to keep vigil eyesight over organ transplantations thus ensuring arrest on illegal tissue trafficking.

Government schemes to promote organ donation.

1. **Hardware and software used:**

* Hardware specification:

Processor: Intel core Duo 1.2 GHz or greater

Or AMD Ryzen 3 2.0 GHz

Hardisk: 20 MB of free space

Ram: 2 GB DDR3 or greater

Host OS: Windows 7 SP1 or greater Ubuntu Linux 16.07

* Software specification:

Programming Language: Python 3.7

Development Environment: Pycharm community Edition 2019

IDE of Jet Brains s.r.o

Backend Database: MySQL 8.0 Database Management

System of Oracle Corporation.

UI Interfacing: Tkinter

Network Interfacing: Sockets

VCS (Version Control System): GITHUB of Microsoft Corporation.

1. **Conclusion:**

Hence we have successfully developed Organ Donation Management System using the python 3.7 programming language. This software meets the objective and goals proposed earlier in the report. The user will find it useful compared to any other software in the society as it provides the better features with lesser complexities and better Graphical User Interface.

Also during this project we have learned process of developing the software.

1. **Future Scope:**

This application can be taken online.

**References:**

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2. <https://www.mohanfoundation.org/>
3. <https://www.python.org/>
4. <https://riverbankcomputing.com/software/pyqt/intro>