MOBILE P/
HELPING

PERPUSTAKAAN UMP
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ABSTRACT

With the advancement of information technology, the use of information and communication technology has covered every aspect of the life. Unfortunately, Many of hospitals in Malaysia still using the manual management of their patient and appointment records. After registering the appointment manually at counter hospital, the patients have to waste their time for waiting at the hospital. Thus to reduce the waiting time at the hospital, a Mobile Patient Appointment and Helping System for Emergency is developed to overcome this serious problem. The system will provide an updated information about the doctors and services in the hostpitals. The system is implemented using Android to be easyn to use any time and any place. In this project, the Hypertext Preprocessor (PHP) is used as the main programming language for developing the system. Whlile some other open source web technologies such as Hypertext Markup Language 5 (HTML5), Cascading Style Sheets (CSS) and JavaScript (JS) are also used to enhances the functionality and usability of this web based application. In short, this project will be used to improve the daily hospital services and operations of all hospitals.

ABSTRAK

Dengan kemajuan teknologi maklumat, penggunaan teknologi maklumat dan komunikasi telah meliputi setiap aspek dalam kehidupan kita. Namun demikian, di Malaysia masih ada hospital yang mengurus rekod pesakit dan rekod temu janji dengan doctor secara manual. Kaedah pengurusan rekod secara manual boleh menyebabkan banyak masalah seperti membuang masa. Pesakit perlu membuat temu janji dengan doctor di kaunter hospital. Selepas membuat temu janji, pesakit perlu membuang banyak masa untuk menunggu di hospital. Dengan itu, Mobile Patient Appointment and Helping System for Emergency telah dicipta untuk menghadapi masalah-masalah yang serius ini. Selain itu, system in juga menyediakan maklumat-maklumat hospital dan doctor yang terkini. Dalam projek ini, selain menggunakan Hypertext Preprocessor (PHP) sebagai bahasa pengaturcaraan utama dalam membangunkan system ini, beberapa teknologi web sumber terbuka seperti Hypertext Markup Language 5 (HTML5), Cascading Style Sheets (CSS) dan JavaScript (JS) juga dilaksanakan untuk meningkatkan fungsi dan kebolehgunaan aplikasi berasaskan web ini. Ringkasnya, projek ini akan meningkatkan operasi hospital di semua hospital swasta.

EXECUTIVE SUMMARY

MOBILE PATIENT APPOINTMENT AND HELPING SYSTEM FOR EMERGENCY

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Abstract— **The time is very important. Wasting time for waiting your turn in the clinics or hospital is a critical case especially in the emergency cases.**

In this project, a Mobile Patient Appointment and Helping System for Emergency is designed and developed. This system is a web based system which the user can use the mobile application to contact with the hospitals and clinics, reserve appointment, asking for help for emergency case, querying about the available things in the hospital and clinic in emergency case. This project is covered all aspects of management and operations of Hospital.

Keywords—Hospital management, Web technologies

I. INTRODUCTION

Mobile Patient Appointment and Helping System For Emergency is a new application that develops to allow the user to search the information through their smart phone in a short time. This application provides the users with an easier way to search the information. The users just need to run the application on their smart phone, they can search the information of the detail of the hospitals and doctors. This application also provides the online appointments of the doctors, the patient can registers their personal information and make an appointment. Some diseases symptoms and health tips are also provided by the application.

II. PROBLEM STATEMENT

A. Time consuming
- *It is wasting time for the patient to wait at the hospital if they do not make an appointment.*

B. Lack of updates and reliability information
- *The patient or the family of the patient cannot get the updated and the reliability information. Sometimes, they get some incorrect or out-to-date information.*

C. Hard to get the information
- *They need to get a computer or laptop to acce. for the system to search information.*

III. OBJECTIVE

A. To reduce the time consuming for waiting at tl hospitals or clinics.

B. To enable the users to get the efficiency and tl reliability data at a short time.

C. To develop mobile application to allow us appointment and emergency response.

IV. SCOPE

A. The users scope of the system are :
- General public
- Private Specialist Hospital

B. The system scope of the system are:
- Patient Registration
- Patient Appointment

V. EXISTING SYSTEM

A. AcuHerb System
- *AcuHerb* System helps the users to make a accurate and instant diagnosis and provide th detailed suggestions for preventing the disease The users just need to select the symptom fro the list of the symptoms

B. miHealthCare
- *miHealthCare is* the best way to find the publi healthcare services around Singapore. The use can find the information about the hospital an polyclinics such as the clinical service contacts, procedure of the admission, directio and the appointment services. The informatio that stored in the database of the miHealthCar will frequently up-to-date.

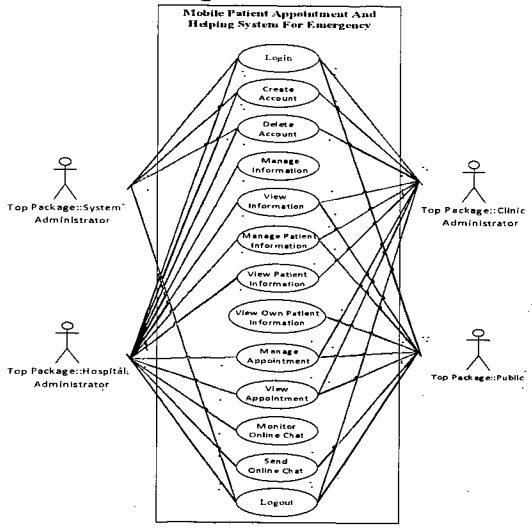
VI. METHODOLOGY

In this project, the Rapid Applicatio Development (RAD) software development methodolog

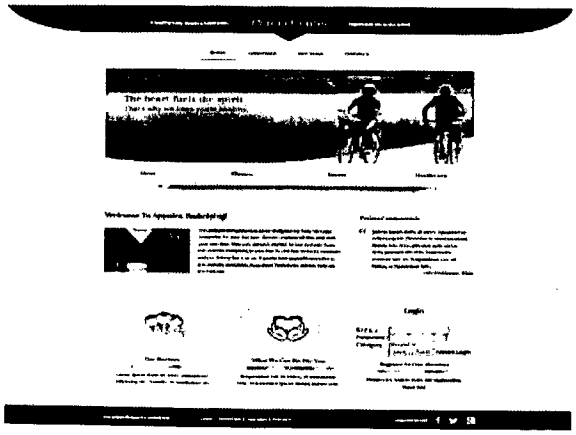
is used in developing the system. Rapid Application Development (RAD) is refers to a software development life cycle designed to give much faster development and higher quality systems than the traditional life cycle such as traditional waterfall SDLC.

VII. USER DESIGN PHASE

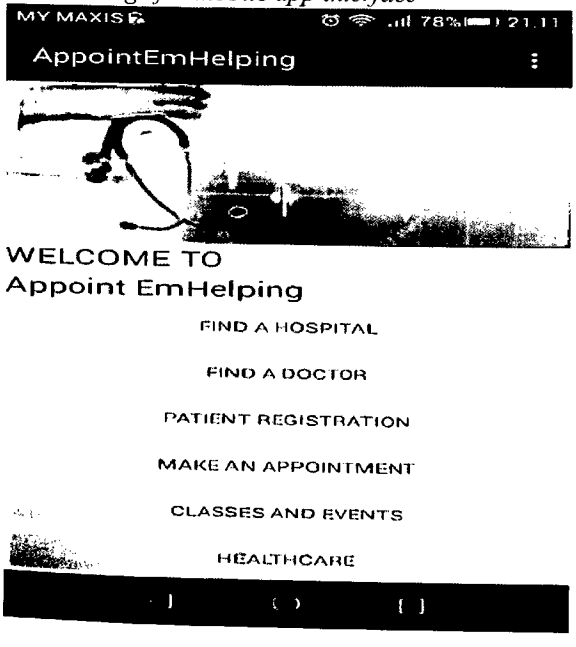
A. *User Case Diagram*



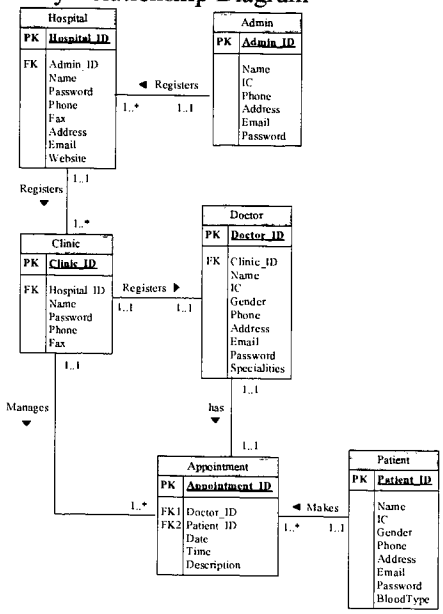
B. *Design for web based interface*



C. *Design for mobile app interface*



D. Entity Relationship Diagram



VIII. DEVELOPMENT PHASE

Several programming languages are used to develop tl system which are included Hypertext Markup Langua (HTML), Cascading Style Sheets (CSS), Hyperte Preprocessor (PHP) and JavaScript (JS). Besides, Notepad+ will be used as the coding editor for this project ar XAMPPControl Panel will be used to connect to the databa server which is phpMyAdmin (mySQL).

IX. TESTING PHASE

There are two types of testing plan will be carried out this project which are included:

A. Unit testing plan

Several test plans will be undergoing and each of tl functionality of the system will be tested.

B. Integration testing plan

The system will be tested as a whole, which concentrat more on the performance and the interactivity of the system.

X. CONCLUSION

In this project, a mobile patient appointment and helpin system for emergency is designed and developed. This syste will help the patients to save time by making onlir appointmenets and find all information about hospitals an clinics. The system also helping the patients in the emergenc case to check the available things in the hospitals and tell the about the emergency case to be ready to care about the patie without any delay especially for the critical cases.

XI. REFERENCE

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[2] Hospital Management. 2014. *Hospital Managemen* [ONLINE]Available at:http://www.hpi.gov.my/portalv11/index.php/en/tutoria s/hospital-management. [Accessed 09 December 2014

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CHAPTER 1

INTRODUCTION

1.1 Introduction

In Malaysia, hospital services are provided by both public hospitals and private hospitals. One of the differences between public hospitals and private hospitals is the fees. The fees of a private hospital are higher than fees of a public hospital. It should be noted that public hospitals offer their services free of charge most of the time. In a public hospital, the waiting time is longer than private hospital since the services are mostly free. The patients have to wait for few years for some opreations. In a private hospital, if the patients have money, they can het their operation done very quickly. The waiting time is lesser caompare to public hospital. However, the patients also need to waste their time to wait at hospital without an appointment. Mobile Patient Appointment and Helping System for Emergency is an application that develops to reduce the waiting time of patients at hospital by making an online appointment.

Nowadays, smart phone becomes very popular. Most of the people have their own smart phone, even a child that aged only 10 years old. The Smart phone is a mobile phone which offers many advanced technologies with functions that can found on a personal computer. Smart phone has a touchscreen interface and it provides a one-stop solution for information management and the functions of the mobile calls, email sending, Internet access and also an operating system capable of running downloads mobile applications.

Today, the technology is getting really advanced and it has become an important part of our life. Smart phones provide all the facilities that a user need in his daily life such as email, gaming panel, high resolution camera applications and many other computerized. There are a lot of the perceptions about the smart phones will

take over all the other digital computerized devices such as desktops, laptops and notebooks in the future.

Mobile Patient Appointment and Helping System for Emergency is a new mobile application that develops to allow the user to search the information through their smart phone in a short time. This application provides the users with an easier way to search the information. The users just need to run the mobile application on their smart phone, then they can get the updated information of the detail of the hospitals and doctors at anytime and anywhere. This application also provides the online appointments service of all the doctors. The purpose of the online appointment service is to reduce the waiting time of the patients at hospital. The patients can register their personal information and make an appointment. The patients are allow to make few appointment for few hospitals. Some classes, events and healthcare tips are provided by Mobile Patient Appointment and Helping System for Emergency.

1.2 Problem Statements

There are several main problems faced by the patient and the family of the patient. Each problem is briefly stated as below:

a. Time consuming

   It is wasting time for the patient to wait at the hospital if they do not make an appointment.

b. Hard to get the updated and reliable information

   There is no a single website that provides the updated information of all hospitals. They need to get a computer or laptop to access for the system to search the information.

1.3 Objectives

The objectives of the system are described as below:

a. To reduce the time consuming for waiting at the hospital.
b. To enable the users to get the updated information of all the hospitals.
c. To develop a mobile app to allow user appointment and emergency response.

1.4 Scopes

The scopes of the application are described as below:

a. The users:
    i. General public
    ii. Private Specialist Hospital
b. The system:
    i. Patient registration
    ii. Patient appointment

1.5 Thesis Organization

The thesis consists of seven (7) chapters.

Chapter one is the introduction about the system. The introduction discusses about the overview of the system. The introduction consists of five sections which are introduction, problem statements, objectives, scopes and the thesis organization.

Chapter two is the literature review. The literature review provides us a handy guide to a particular topic. The literature review discusses about the current existing system and the technique that used by those systems.

Chapter three is the methodology. System methodology discusses about the method that use to develop the system and the tasks at every phases. The use of hardware and software will be discussed in this chapter.

Chapter four is the design. This chapter discusses about the design of the interface of the system. Besides, the design of the database also will be discussed in this chapter.

Chapter five is the implementation. This chapter discusses about how to develop the system based on the method and how the system run.

Chapter six is results and discussion. This chapter also discusses about the results that achieved from the system and the weaknesses of the system.

Chapter seven is the conclusion. This chapter discusses about the conclusion of the overall project.

CHAPTER 2

EXISTING SYSTEM

2.1 Introduction

This chapter is discussing about the existing system that related to the Mobile Patient Appointment and Helping System for Emergency. The comparison between the existing system and the Mobile Patient Appointment and Helping System for Emergency also will be discussed.

2.2 Review of Existing System

2.2.1 AcuHerb System

AcuHerb System is the first project that integrates the technique of the computing with the acupuncture and traditional medicine in china, it was developed twenty years ago. AcuHerb system has been upgraded for several times due to the growth knowledge in IT and the accumulated clinical experience from the top experts in this area.

The latest version of the AcuHerb System reflects the most advanced techniques that used in the mobile system. AcuHerb System contains almost one hundred common diseases that involved in the internal medicine, surgery, gynecology, pediatrics and other area as shown in the Figure 2.1

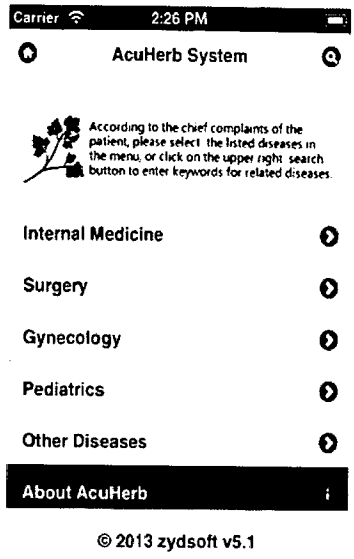

Figure 2.1 Diseases List

AcuHerb System helps the users to make an accurate and instant diagnosis and provide the detailed suggestions for preventing the diseases. The users just need to select the symptom from the list of the symptoms as shown in the Figure 2.2

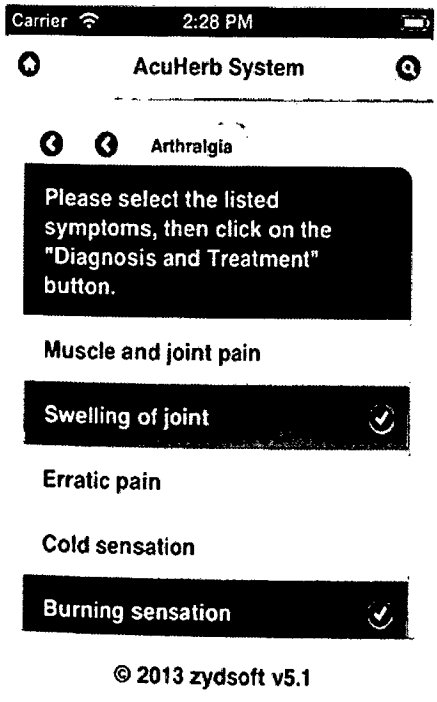

Figure 2.2 HealthCare

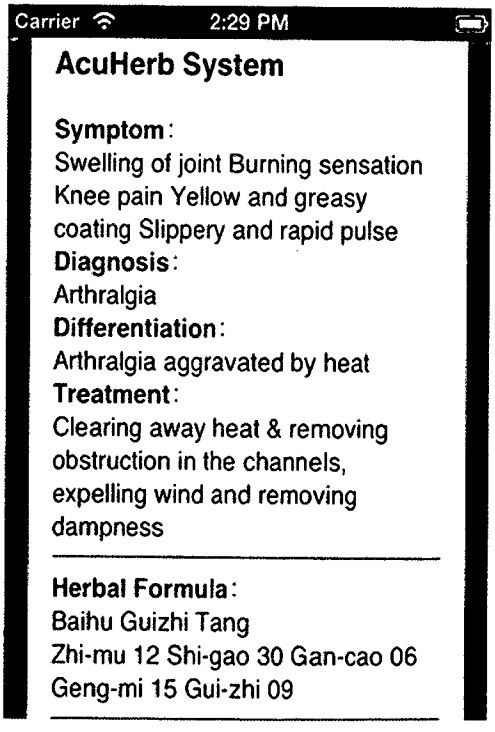

Figure 2.3 Information of HealthCare

Figure 2.3 shows that the correct diagnosis, full description of the symptoms, differences, principles of the treatment, herbal formula and other useful information that provided by the system automatically. The medicine generated depends on the information provided by the collection of the relevant symptoms, so that the results for the treatment solution are highly related to the individual cases.

2.2.2 miHealthCare

miHealthCare is the best way to find the public healthcare services around Singapore. The users can find the information about the hospital and polyclinics such as the clinical services, contacts, procedure of the admission, direction and the appointment services. The information that stored in the database of the miHealthCare will frequently up-to-date.

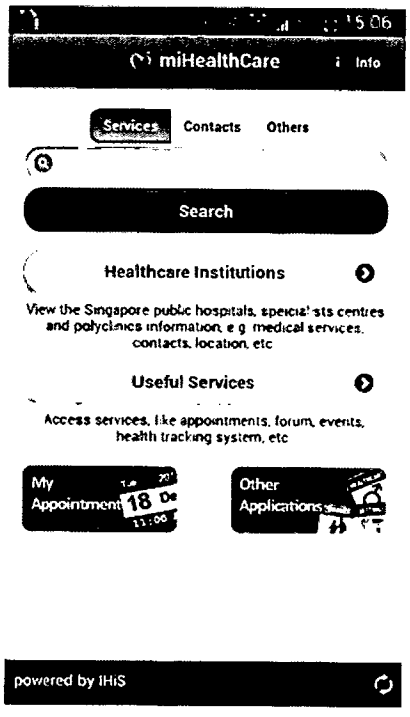

Figure 2.4 Global Search

Figure 2.4 shows that the feature of the global search in the home screen. The users can find the contact and the institution information for the services easily from the home screen.

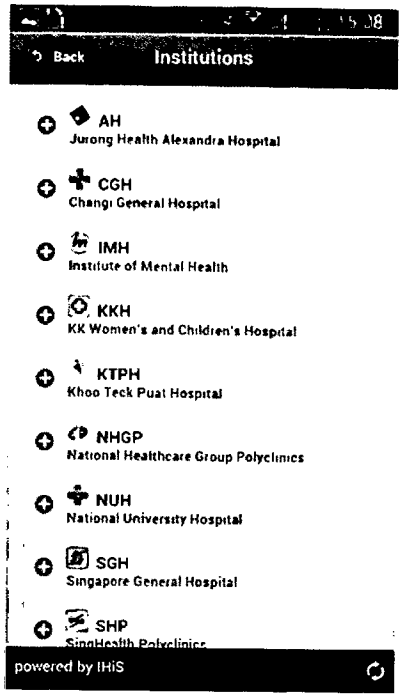

Figure 2.5 Healthcare institutions

Figure 2.5 shows that the "Healthcare institutions". In the "Healthcare institutions", the users can get the information about the hospitals, specialist center, polyclinics.

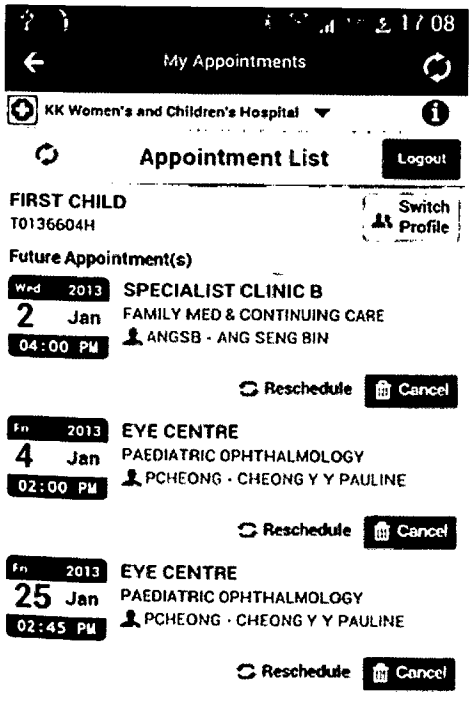

Figure 2.6 Appointment List

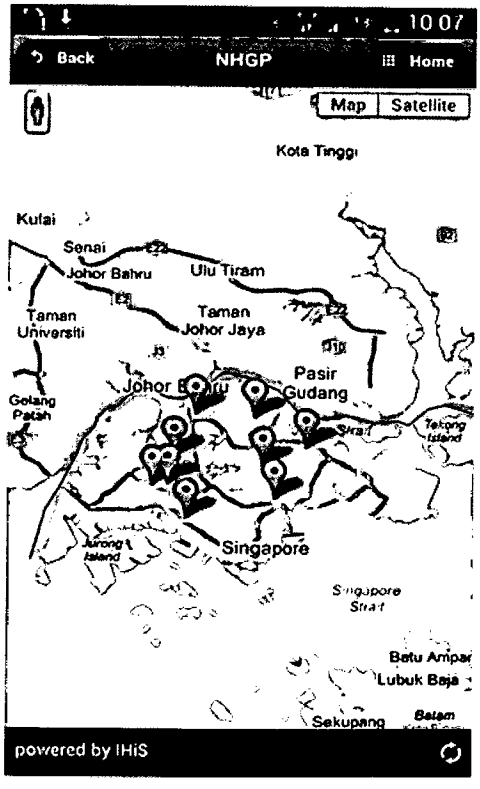

Figure 2.7 Map

Figure 2.6 shows that the appointment service that provided by the miHealthCare. The users can make the appointment due to the date that available for the doctors. The users also can view, reschedule and cancel the appointment. Figure 2.7 shows that the location map. The users can search the accurate location of the hospital in a short time. The users also can search the hospitals that near the area that they stay. These useful features are provided by miHealthCare to bring more integrated information and healthcare services.

2.2.3 In Case Of Emergency (ICE)

In Case of Emergency (ICE) is a convenient way to search the information that needed by the users in case of an emergency happen. With the ICE Emergency Application, it allows the emergency services or the hospital staffs to access the ICE application while the phone locks. The ICE emelrgency application icon will pop out on the unlock screen as shown in the Figure 2.8.

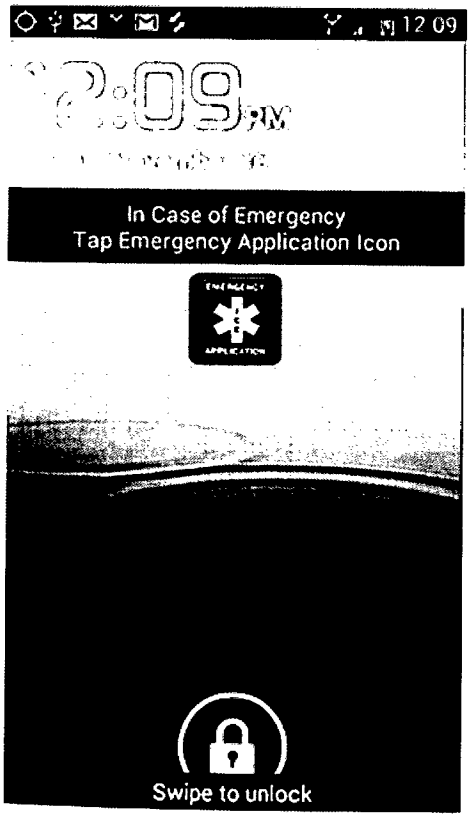

Figure 2.8 SOS Icon

Figure 2.9 Home Page