

Android Application on Human Pathology

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Abstract— Mobile applications are becoming increasingly popular as they can be used to play games, get turn-by-turn directions, access news, books, weather, location and more. They are easy to download and often free. But there are very few apps that provide useful information related to health. Severe diseases like cancer, diabetes, blood pressure, dengue can be cured effectively when diagnosed in earlier stages, if there is proper awareness of its symptoms. Modern lifestyle of people makes it difficult to get adequate information about these symptoms.

We aim to develop an android mobile application which provides required information like description of disease, its causes, symptoms and Control Measures for common diseases like heart diseases, cancer, diabetes, arthritis, STDs, blood pressure and dengue. Use of this application helps to identify the disease at an earlier stage thereby improving the chances of its cure. It also provides major advantage by sharing the information using Mails, Social sites and Messaging, finding the near Hospitals around current location.

Keywords- Feedback, positioning, Sharing, Description, Symptoms, Control Measures, hospital environment.

I. INTRODUCTION

Mobile is the platform that reaches the Application to large Masses easily and this project targets audience. So, we aim to build a Mobile Application that is more useful for Human Beings.

Recently, Android is one of the leading and fastest growing mobile platforms. Android is an open source software and the Android SDK is freely available for developers. The minimal setup time and the number of tools available for android SDK to ease the development process and allow developers to concentrate more on the design and implementation details of the application.

The main objective of this project is to experience developing an android mobile application which is one of the booming trends in health Industry. But there are very few applications that provide useful information related to health.

Severe diseases like cancer, diabetes, blood pressure, dengue, Thyroid etc can be cured effectively when diagnosed in earlier stages, if there is proper awareness of its symptoms. Modern lifestyle of people makes it difficult to get adequate information about these symptoms.

The rest of the paper is organized as follows: Section II presents the Related Works in this field. Section III outlines the Proposed Model The paper gives an outlook of future research and goals in Section IV and closes with the summary of results in Section V.

II. RELATED WORKS

Various other android apps have been implemented as discussed below.

Tropical Diseases app is available in android market. It provides information about the symptoms, causes, treatments and preventative measures. It covers the most prevalent and dangerous diseases afflicting those who travel to, or live in, tropical or subtropical areas. This application is designed for medical professionals and people visiting "at risk" parts of the world. It features additional diseases which are not restricted to, but commonly found in, the tropics or subtropics like: African Trypanosomiasis, Chagas disease, Dengue, Dracunculiasis, Ebola fever, Flavivirus Infections (Yellow Fever), Hookworm, Leishmaniasis, Lassa fever, Malaria, Marburg virus, Scabies, Schistosomiasis and more [1]. Tropical Diseases App is a paid app. This App is restricted to the diseases commonly found in tropical and subtropical areas. It mainly provides information about the diseases that are caused by insect bites.

The Human Anatomy application is a SIMPLE educational quick reference app that contains the information of sixteen different biological systems namely Cardio Vascular System, Digestive system, Endocrine - Central Nervous, Endocrine - Reproductive, Endocrine Alimentary, The Eye, Female Reproductive System, Lymphatic System, Male Reproductive System, Muscular System - Back, Muscular System - Front, Nervous System, Respiratory System, Skeletal System, Back Skeletal System - Front, Urinary System.

IV CONCLUSION

The Human Anatomy application describes only about the biological systems. But it lacks the information on the common diseases affecting Human Beings [2]. First Aid app is designed to help you to follow the right procedures in a stressful situation or support other people by giving them instructions related to first aid of accidents, wounds, heart attack, shock, food poisoning and other emergency situations. It is based on illustrations, videos and short texts that show you how to take the necessary action step by step and in the right order. This Application only provides First Aid information on Wounds, Bleeding, Shock, Head injuries, Life saving procedure and other medical emergencies.

III. PROPOSED MODEL

We propose a new app called ‘Human Pathology that provides information such as description of disease, its causes, symptoms and Control Measures for common diseases like heart diseases, Thyroid, cancer, diabetes, arthritis, STDs, blood pressure and dengue.

Our Application also includes Share option, through which the user can mail the information using Gmail, Yahoo mail, hotmail etc., Social Networking sites such as Facebook and through SMS and WhatsApp. It also uses GPS to find nearby hospitals around location of the user by using maps, Directions etc available on smart phones. It even allows user to call Ambulance in case of emergency. The Application shows Gallery containing pictures of various diseases and allows the user to send the Feedback to the Developers.

System Architecture

This section describes the System architecture of this application.

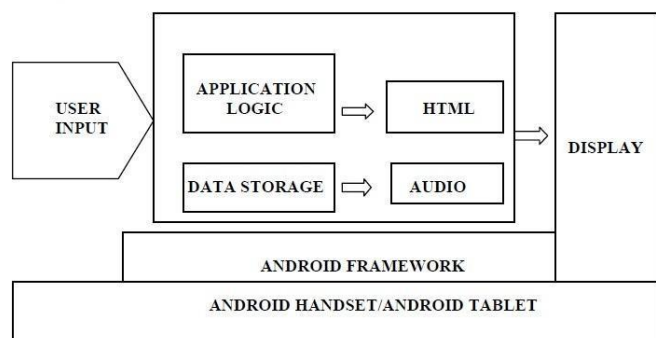


Fig.1 System Architecture

Application Logic provides the descriptive functions of the entire Application. The Data Storage unit helps the application to store the data and HTML displays the data in a systematic way. There is an Audio unit that provides the background music that can be enabled to run when the application is being used.

Android Framework helps to develop the Application and necessary tools are provided by it. Android Handset Tablet is the Android operating system device that helps to Test and Run the Application.

The application has been designed, implemented and tested with real devices with users successfully. The development of this app helped in understanding the challenges involved in creating a Medical Related Application for android handsets and tablets, the ways to overcome them and in better understanding the intricacies of mobile application development. It also helped in understanding the value of designing the components of overall application before implementing them.

V RESULTS

The look and feel of the developed app is as given below.

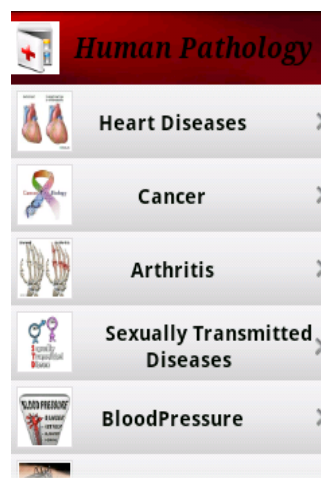


Fig. 2 Snapshot 1

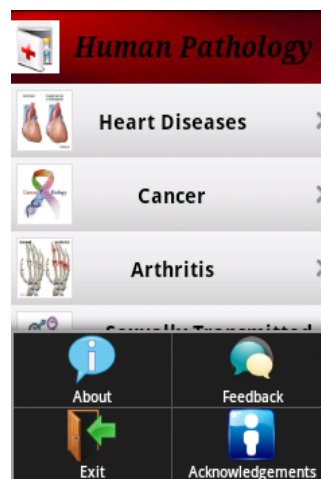


Fig. 3 Snapshot 2



Fig. 4 Snapshot 3

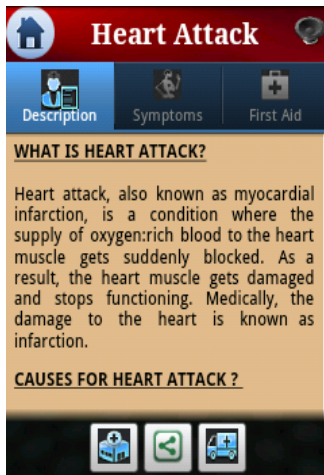


Fig. 5 Snapshot 4

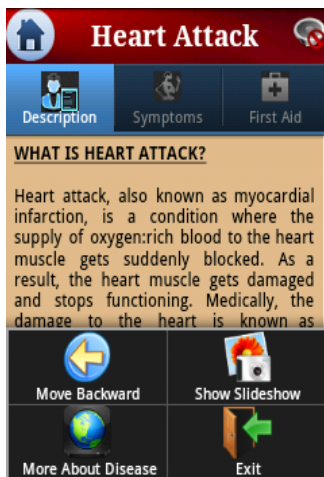


Fig. 6 Snapshot 5

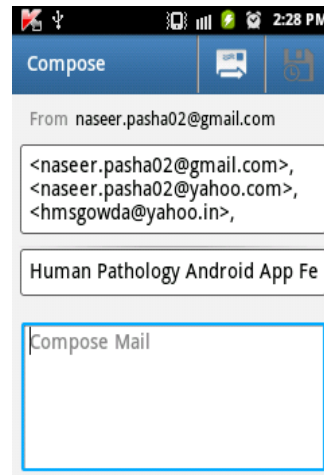


Fig. 7 Snapshot 6

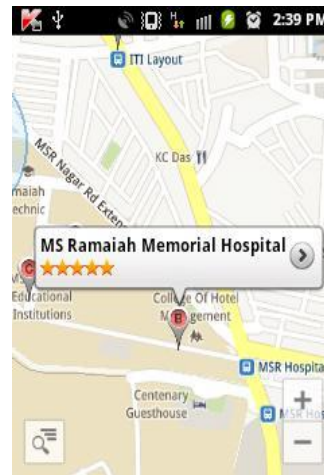


Fig. 8 Snapshot 7

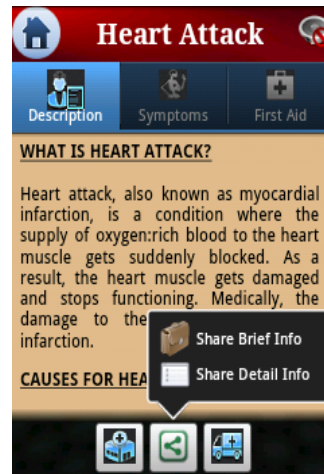


Fig. 9 Snapshot 8



Fig. 10 Snapshot 9

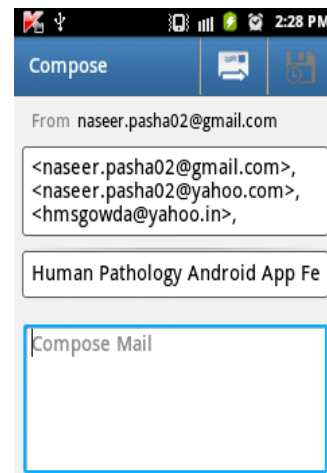


Fig. 12 Snapshot 11

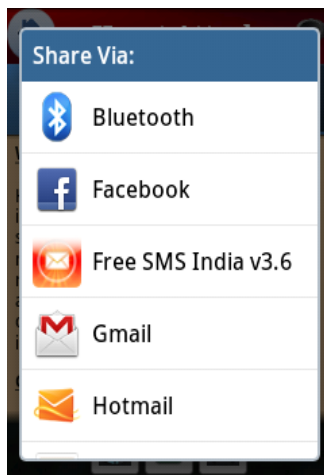


Fig. 11 Snapshot 10

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