

# Healthcare Assistance Application With Chatbot

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**Abstract:** Due to the lack of necessary equipment, many hospitals are resorting to transferring critical patients to other hospitals. This issue has raised the need for a novel mobile application that can provide information about the various hospitals in a given location. This paper aims to develop a novel application that will allow users to manage the details of various hospitals in their nearby locality and provide them with helpful information about medicines. ChatBot is an artificial intelligence chatbot that can interact with users. It can perform various tasks such as answering questions, informing users, and helping them purchase products. It has become more prevalent in business groups. In order to provide a better and more accurate answer to every query, a chatbot should be designed with the most up-to-date AI technology. This system uses AIML and LASA to provide a chatbot that can answer all your questions. The responses will be provided using AIML or other service based questions. The idea of using computers for answering general questions has been around since the early days of these systems. The idea of utilizing computers for question answering tasks has been around from the early beginning of these systems. First algorithms with the aim to accomplish this were already implemented in the early 1960s. In recent years, chatbots have been gaining enormous popularity in various fields. In the context of business applications, they are considered as useful tools for improving customer relationships.

**Keywords:** Chatbot, Hospital Equipment Information, First aid, Medicine information, Medical application.

## I. INTRODUCTION

Knowing the type of diseases that the patient can treat and the type of equipment that the hospital has will help a person make an informed decision when it comes to choosing a medical facility. Also, being in a well-equipped hospital can help improve the quality of the treatment that the patient receives. Unfortunately, many people end up getting admitted to the wrong facility due to their erroneous decisions. This issue usually occurs because hospitals often have websites that only contain information about their facilities. However, these websites often take a long time to search for and are not very helpful in handling emergencies. Being able to provide first aid services is very helpful for people who are injured during an accident. Having this knowledge will allow them to save their lives. Most of the time, people purchase a large number of medicines at a time. When they encounter a situation where the medicines are purchased long back, they will not be able to remember their exact details. Having the necessary information about medicine will not waste it. Having people sharing this knowledge will help others in dealing with different situations. It also provides information regarding the available different insurance policies. The rest of the paper is organized as follows: Section II highlights the literature survey. Section III gives a brief idea of the proposed work. Section IV emphasizes the implementation. Section V highlights the results and Section VI concludes the paper.

## II. PROPOSED METHOD

The proposed system provides various details about a hospital, such as its ratings, equipment availability, and patient satisfaction. It helps the users identify the best hospital for their treatment. The system sends a list of hospitals that have the equipment to cure a particular illness. It also provides helpful information such as the type of medicine used and the patient's name. The system also provides helpful information about various types of medical insurance policies. Through the interaction with other users, it can be used to share knowledge

## III. IMPLEMENTATION

The system is developed using Android Studio. It is divided into different modules like Home, Information, Insurance, and Community. This application can be run across all Android phones with android versions above Jelly Bean (4.1). To develop applications that can run on android devices, Android studio is used to verify its integrated development environment built on JetBrains IntelliJ IDEA software.

### A. Home Module

The home module consists of a list of hospitals with the information such as the hospital rating and the type of equipment available in the hospitals.

### B. Chatbot Module

Here, the user can get information about the medicines and first aid steps to follow during an emergency. This information about first aid is provided by the Bot.

### C. Insurance Module

This module consists of different medical insurance policies that are provided by different companies. The system redirects the user to the insurance company website if the user clicks on the policies.

### D. Community Module

This module provides an environment to the user where he/she can interact with other users. This helps the users to share knowledge or experience that they possess with other users.

## IV. DISCUSSIONS

After installing the application, the user goes to the screen where two options are displayed, which are called Login and Register. The first option asks the user to register, while the second one provides a verification code that is sent to his/her mobile number. One-time passwords are used for verification. When prompted, the user needs to enter his/her mobile number to confirm the registration. After creating a new account, the user can use the email address and password that were sent to him/her during the registration process. After successfully logging in, the Home page of the site displays the list of hospitals that are available in the user's area. The list also includes the contact details of the hospital's doctors and other health care facilities available in the area. The user can search for and filter the hospitals using the search and filter options. By entering the type of disease that the user is interested in, the list of hospitals will display a list of qualified doctors and other health care facilities. Using this the user can choose an appropriate hospital. In the chatbot module the Bot is implemented, which can be used to get the first aid steps to follow on various situations. The user needs to enter the situation like burns, seizure etc., for which the Bot provides the first aid steps to follow. The next option available to the user will be the insurance module where different insurance policies are displayed. These policies are provided by different insurance companies. If the user wants to know more about the policies or wants to buy the policy, he/she is redirected to the company website. All the payments will be carried out by the respective companies as the module will be only showing details.

## V. FIGURES



Fig. 1. Flowchart - Health care assistance application



## VI. CONCLUSION

Finally it is concluded that the health issues need to be addressed as much as earlier. It will be good to help the users during the emergency situation by using a mobile application to provide the required details. Also, providing first aid tips and medicine information on a single platform helps the users to save time. From this, the user can get information about hospitals, medicines, insurance policies and also interact with the other users in a very short time. This eradicates the time taken to search all the information from the Internet. Using the system one can choose the appropriate hospital & provide first aid or can know information about medicines or share their knowledge with other users. A survey has been conducted and found that it is required by the people to know more information about different hospitals and the equipment present in them so that they can choose appropriate hospital for treatment. It also helps in obtaining the information about medicines and steps to follow in emergency situation. In this work, an application has been developed to provide all necessary information to the patients.

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