

Mobile Health App – A Tool for Health Services

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Abstract—Use of mobile technology in the field of medicine and healthcare is denoted as great health on the go. This mobile health app is used to keep the doctor's information, the patients can book the doctor's appointment and also in this app health information and health tips are dynamically displayed. The patient can also have a conversation with the physician such that the patient can visit the hospital physically at what time the doctor is present. By uploading the medical data of patients through chat, the doctor can give some suggestions to patients online and also can suggest some medicine. The online payment can be done to the doctor. This app will help the old age people who cannot go to the hospital and also the patient who were so far from the hospital. During the pandemic situations like Covid-19, this app would be very useful to track and provide treatment online. Many features can be added to this app in future.

Index Terms— Mobile health app, Android Studio, Health care, Health services, App Development tools.

I. INTRODUCTION

The mHealth app[1][2] is very popular on all mobile device platforms, there are many health apps, and only a few are associated with healthcare providers. Health News is provided and doctor appointments can be made both online and offline. This app will provide doctor details to make an appointment.

Healthcare mobile apps can be used to integrate and analyze medical data to provide patient care more efficiently. This allows you to improve your medical outcomes while protecting the privacy and security of your data. All processes and all data are securely recorded and stored in the hospital database. The user-friendly, flexible and convenient search interface gives you quick and easy access to information.

If anybody is ill and wants to visit a doctor he or she needs to wait until the doctor is available. The main idea of building this app is to provide ease and comfort to patients taking an appointment and it also resolves problems faced by the patient while appointments.

II. RELATED WORK

According to a survey, publications from 2004 to 2014 have 80 academic papers, including over 100 apps and some apps can display articles on mobile devices[3][4][5].

According to the graph shown in Fig. 2, most papers concentrated on chronic disease management, personal wellness, and healthy living[6][7].

When you categorize your users, you can see from this pie chart that the main factors are accuracy and reliability. The patient group is the highest at 44% and the caregivers are the lowest at 7%. The survey shows



Figure 1. Mobile Health App Logo

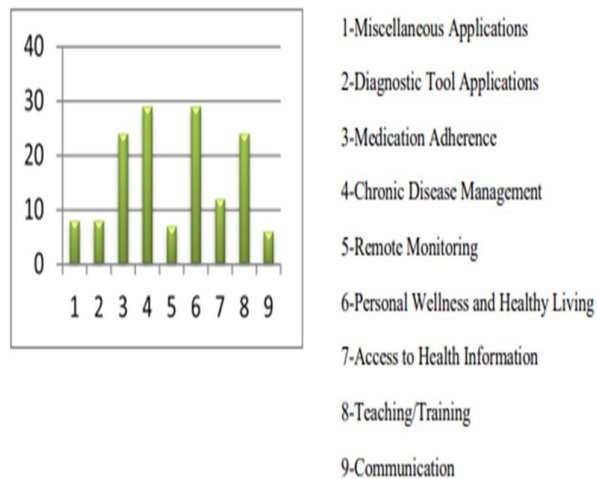


Figure 2. Mobile Health App Areas

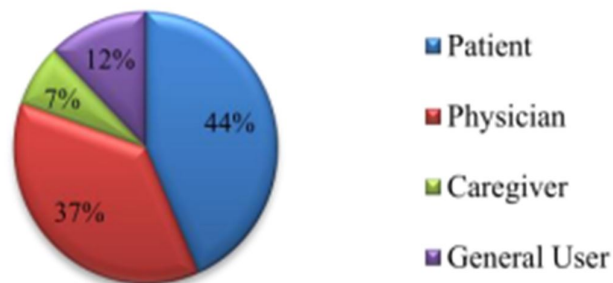


Figure 3. Users in Mobile Health App

that groups of patients and doctors are using more mobile health apps[2][8][9].

III. METHODOLOGY AND DESIGN

Following is the proposed methodology of the mobile health app.

A. Proposed Method

The proposed method is a doctor appointment app that uses the android platform which is easy and reliable for users.

The HAPPY HEALTH contains a login page and signup page. This app also contains doctor information such that you can select the time and book online or offline.

B. Android

Android is an open-source operating system that is used to develop many useful applications. The mobile application is been connected to firebase.

C. Why Develop an Health App?

These mobile applications are popular because many people use smart phones and have access to the internet. This mobile health app can also make services faster and cheaper[10].

D. Benefits

- ❖ It is helpful for the residents of remote access
- ❖ Decreases the chance of a wrong diagnosis and saves time.

DESIGN

A. Software Requirements & Specification

The software used for the implementation of this problem are:

- Android Studio
 - Software Development Kit
 - Integrated Development Kit
 - Java Software Development Kit(JDK)
- Languages used: JAVA, XML
- The Android Package Kit (APK) is a file that has all components to execute your android project

B. Design User Interface

- ❖ First, install Android Studio
- ❖ Click File to create a new project
- ❖ Write your code in Java and lay out your app in XML.
- ❖ This HAPPY HEALTH app also allows patients to register and log in after launching the application.
- ❖ Patients can view their doctor's profile, date, and time to schedule doctor appointments offline or online.

IV. EXPERIMENTATION

The user should download the application and install it on their mobile phones. the application will be available until the user uninstalls it.

On this signup page, the user has to fill in information like username, email, and password and click on the signup button then you will get the sign-in page.

After signing in, the doctor info page will get displayed the menu is also present in it.

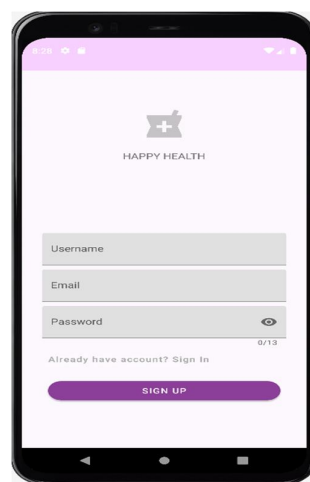


Figure 4. Sign-in Page

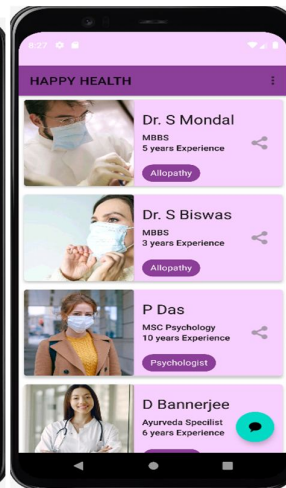


Figure 6. Doctor Info

On sign-in page, the user needs to log in credentials and then click the sign-in button. If a password is not up to 13 letters or less than estimated then the error message will get displayed.

Doctor information is available on this doctor information page. Users can see the doctor's name, specialty, and experience. Click on the doctor information to display another page and book online or offline.

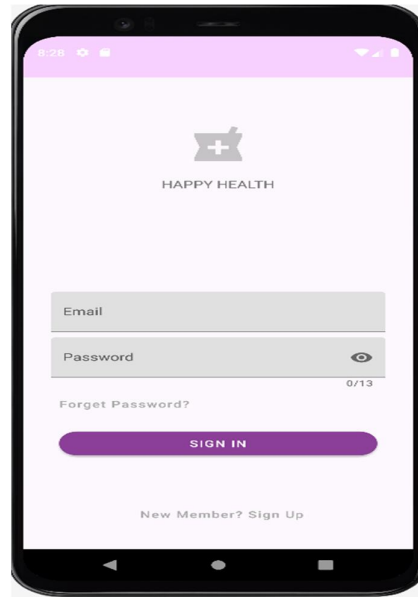


Figure 5. Login Page

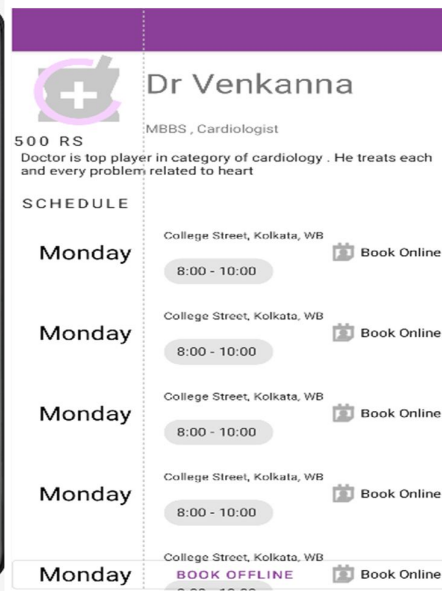


Figure 7. Book Online or Offline appointment

The schedule can be found on the book's online or offline page. The time is shown in this schedule. And at this point, the user can make a reservation online or offline. When booking online, online bookings are displayed successfully, and when users book offline, offline bookings are displayed successfully. In this menu, some of the options like view profile, health news settings, and log out get displayed. If the user clicks the health news then the health news page gets displayed.

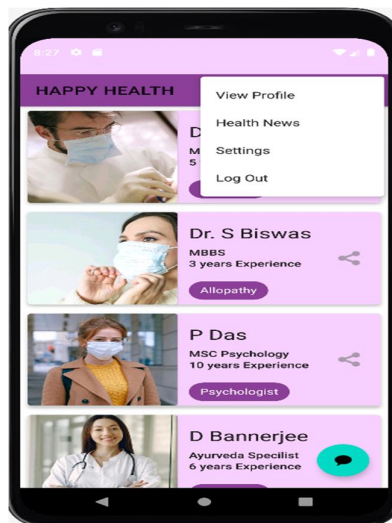


Figure 8. Menu



Figure 9. Health News

In this health news, the latest health news is been included. So, that everyone can be aware of medical health care. During the pandemic situation, it was very useful to track covid cases. Medications to get rid of covid. The vaccine information was also been included. On the doctor info page, there is a share option such that we can share the doctor information to whom it is required through any sources.

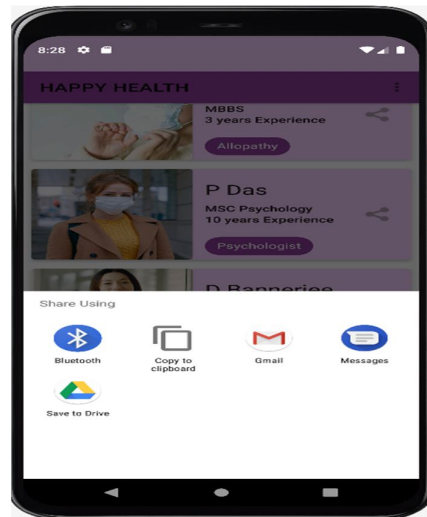


Figure 10. Share Option

V. CONCLUSION AND FUTURE SCOPE

The Happy Health, the doctor appointment app has been implemented in the android studio for application development and this app also using JAVA and XML technologies.

This app helps the patient who is ill and wants to visit for a doctor's checkup and waits until the doctor is available.

In the future, we can add a search feature such that we can find the doctor based on his specialization and also providing analysis of lab reports as well as telemedicine futures.

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