HEALTHAID: AN ANDROID APP FOR MEDICAL DOCUMENTS MANAGEMENT

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering

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APPROVAL

This Project/internship titled **"HEALTHAID: AN ANDROID APP FOR MEDICAL DOCUMENTS MANAGEMENT"**, submitted by NAJMUL HAQUE SAGOR, ID No: 173-15-10450 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 06 January 2022.

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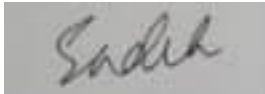_____

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DECLARATION

We hereby declare that; this project has been done by us under the supervision of **Md. Sadekur Rahman, Assistant Professor, Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.
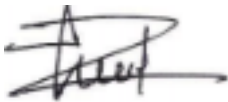
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Finally, we must acknowledge with due respect the constant support and patience of our parents.

ABSTRACT

Due to the fact that lifestyles are so worrying, it's tough to schedule an appointment with a medical doctor and hold true fitness care. The fundamental aim of this assignment is to provide patients with comfort and luxury while they wait to peer a health practitioner, in addition to clear up troubles that patients may have at the same time as scheduling an appointment. The Android app HealthAid serves as a client, even as Firebase serves as a server, keeping music of the doctor's facts, patient facts, and appointment data. cellular computing and advanced mobile networking are actually built into portable gadgets referred to as "smartphones," which may additionally run 1/3-celebration packages. The range of telephone users, which incorporates healthcare specialists, is constantly growing. The intention of this takes a look at turned into to categorize cellphone-based fitness care technology based on their capability as noted in instructional manuals, and to summarize articles in each category.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

If a person is sick and has to see a physician, they should go to the clinic and anticipate the medical doctor to turn out to be available. The patient additionally had to wait in line for appointments. whilst a health practitioner cancels an appointment because of another urgent appointment, the patient is ignorant of the cancellation until he arrives at the medical institution. Due to the fact that the cellular cell phone communique era is continually evolving, cell smartphone programs can be used to assist sufferers conquer challenges and disturbances. To be courteous, there is lots of work in the literature on this. sufferers ought to have access to a planning manner via an appointment system primarily based on smart sellers. On an everyday foundation, schedules to younger scientific groups of workers appointments. it is an Android utility that uses the Alarm Ringing device to remind patients in their volume instances for you to live sturdy and healthy. The app permits them to search for physicians and hospitals, in addition to collecting guidelines, so as to get the precise remedy on time. and Android based on an appointment control system that leverages Google Maps and Calendar application programming interfaces (APIs). Other nomination-primarily based projects can benefit from this appointment-based total software. cell This record appointment is saved on a synchronized cell phone calendar on Google Calendar, and the software gets appointments. A caution is sent to customers based totally on the time and date of their appointment. The fitness tune affiliate program also suggested sensors that seize records via telephone and keep it on a primary server in addition to looking over the internet. Some online structures which are now in use have a few demanding situations. To cope with those troubles, an internet affected person selection method based on close to subject communication (NFC) and an Android-enabled cell app is offered. This software makes use of a single registration to schedule appointments based on NFC get entry to affected person health records and reviews permitting nurses and physicians to be informed. a sickness Self-hospital Registration and recommendation device is some other intriguing activity (DSRRS). It communicates with the questioning carrier and the system the use of the relaxation technique of communique. Users are obtained from the private health report (PHR) and are customary for inclusion in the thinking carrier prior to

consulting with the disease records. Person information, illness history, information base (signs and symptoms), and the effect of the thought carrier are all protected within the center. This loose application for Android smartphones and tablets can be downloaded from the Google Play shop and affords a number of capabilities such as employee clinical facts and real-time tracking of person area. To create your vacation spot, a direct set of rules is employed to determine the shortest distance. a web tracking portal for sufferers with artificial hearts is protected within the take a look at. This database keeps song of a portable and lengthy-lasting terminal affected person record, together with their medical history. Other classes include self-configured appointment algorithms to check and fitness care powerful appointments.

1.2 Motivation

Docs shop lives, which is why they need to not be too a ways away from individuals in need of scientific help. because the range of people searching for medical help grows, medical doctors need to make their services greater reachable to their sufferers. Giving clients get entry to to on-line appointments is one way they can achieve this. In this day and age, while some thing and whatever may be obtained at the net, you ought to take gain of the online physician's appointment application.

Whilst you can no longer have things to offer or an ecommerce website, you have to be aware that customers want carrier providers to make purchasing easy. Accepting appointments via your WordPress internet site gives what your purchasers need from you, that's a medical carrier. here are five reasons why you need to provide online reservation making plans services in your sufferers if you have any qualms.

1.3 Objectives

- To provide a repository platform to users saving their medical documents.

- To ensure accessing facility to use medical documents anytime from anywhere.

- To ensure doctors about the previous medical history of his patients.

1.4 Report Layout

Chapter 1: Introduction

Chapter 2: Background

Chapter 3: Requirement Specification

Chapter 4: Design Specification

Chapter 5: Implementation and Testing

Chapter 6: Conclusion and Future Scope

CHAPTER 2

BACKGROUND

2.1 Introduction

Smartphones were extra broadly to be had among fitness specialists and most of the people in current years. The phone is a singular generation that combines cell connectivity with the usage of a portable tool, taking into account cellular computing in the field of health care. The foremost purpose of this studies was to categorize and describe cellphone-based totally healthcare technology into books depending on their usefulness. on this context, we give systematic reviews. To the first-rate of our expertise, this is the first look at to apply a scientific review of textbooks to discover and summarize phone fitness care apps.

Clinics, patient wards, outpatient offerings, emergency departments, surgical theaters, intensive care gadgets (ICUs), labs, and other scientific areas are all a part of the health-care gadget. running inside the health-care device therefore necessitates a diverse institution of health-care professionals, in addition to communication and collaboration among many individuals, which includes colleagues and patients. prior to the introduction of cellular telephones inside the Nineties, healthcare employees specially trusted pagers for cellular cellphone communication. within the mid-Nineteen Nineties, the advent of private virtual Assistants (PDAs) allowed fitness professionals to modify contacts and calendars electronically, permitting them to deliver any other tool in their pockets. A unmarried tool referred to as a "smartphone" is presently replacing the incorporated capabilities of a pager, mobile cellphone, and PDA, that is famous amongst fitness professionals and most people. Appendix I carries extra information approximately mobile phones and their working system structures. table 1 in Appendix I offers an outline of phone platform OS capabilities, and table 2 in Appendix I illustrates guide for traditional smartphone OS platform traits with device hardware get admission to.

2.2 Related Work

Between 2000 and 2005, a scientific evaluation of 23 surveys on PDA use by using fitness specialists (carried out within the United States of America (survey sixteen), Canada (survey four), Australia (survey 1), each within the America and Puerto Rico (1 survey), as well as the United

States and Canada (1 survey)) discovered that the general acquisition rate varied among 45 and eighty five percent [1. the subsequent were the PDA utilization styles reported by way of this take a look at: (1) junior physicians (94%) had been much more likely to apply the PDA than older docs (eighty four.5%), and college students and scientific residents had been typically more youthful and much more likely to use the PDA; (2) no giant gender differences for PDA customers had been reported between physicians, trainees, or citizens; (three) the adults receiving PDAs had been own family and trendy team of workers; and (4) senior medical doctors and sanatorium staff have been better recipients of PDAs. between 2000 and 2005, a scientific evaluation of 23 surveys on PDA use via health specialists (performed in the usa (survey 16), Canada (survey 4), Australia (survey 1), each inside the america and Puerto Rico (1 survey), in addition to the us and Canada (1 survey)) observed that the overall acquisition price various among 45 and eighty five percent [1. the subsequent had been the PDA usage styles mentioned with the aid of this observe: (1) junior physicians (ninety four%) have been more likely to apply the PDA than older doctors (eighty four.5%), and students and clinical citizens have been commonly more youthful and much more likely to apply the PDA; (2) no massive gender differences for PDA customers have been stated among physicians, trainees, or residents; (3) the adults receiving PDAs have been own family and preferred personnel; and (4) senior doctors and health facility group of workers have been better recipients of PDAs.

2.3 Comparative Studies

In current years, health care specialists have required up-to-date updated a variety of technologies inside the subject of care, up-to-date: (1) up to dateriumupdated information systems (HISs), up-to-date electronic health document (EHR) or electronic scientific file (EMR) packages, assist packages medical selections. (CDSS), up to date and communication structures (p.c.), Laboraup-to-datery statistics systems (LISs), and others; (2) evidence-up-to-date services, which include PubMed and (3) medical applications, consisting of Static computer systems, which do now not completely help the cellular healthcare system, deliver up to date updated records systems or medical programs in fitness care facilities. In reaction, extra transportable technology and mobile communication technologies (MICTs) up to dategether with computers on Wheels (COWs) or Workstations on Wheels (WOWs) are being deployed in specialised health care settings up-to-date up to dateupdated up to date information era. increased telephone usage amongst healthcare

employees highlights the ability for greater medical communication, up-to-date updated information structures, and clinical gadgets in the care placing or from anywhere at any time. As a end result, several software program programs are created by using fitness care experts updated make proof-primarily based remedy (EBM) simpler up to date undertake inside the care surroundings.

2.4 Scope of the problem

The scope of the project is very wide by going to another online doctoral appointment site.

A few of them are:

- The patient and the doctor receive an SMS from the system.
- There is a large collection of medical information.
- Anyone can get Blood on time.

2.5 Challenges

Here are some of the obstacles I've experienced in the past:
- For me, the Firebase database was a new tool. Because I'll be using this database in our project, I'll need to understand a lot about it.
- To come up with a gorgeous design and features that are one-of-a-kind.
- The goal is to create a user-friendly interface.
- In one app, you'll be able to manage two parts: regular users and administrators.
- Assuring the safety of data.
- Unauthorized users are prevented from accessing, writing, or removing data from the database.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

Ready surely refers to the amount of time a person has look forward to a hobby to be finished once a request has been made or common (Fernandes et al., 1994). the quantity of time from the time a patient enters an outpatient health facility and the time the affected person obtains a prescription is called patient waiting time (Jamaiah, 2003). it's far described because the time taken from registration to a medical consultation. the first turned into the time it took to go to a doctor, and the second one became the time it took to get hold of medicinal drug (Suriani, 2003). This observe covers the period of time it takes to peer a doctor. patients accessing city health facilities in underdeveloped countries face long wait times as a key trouble (Bachmann, 1998). At South Africa's largest clinic, the block choice approach became carried out and evaluated. All sufferers' wait times were measured one week before and after their appointments. team of workers and patients participated in recognition organizations and character interviews. individuals with severe and chronic sicknesses and appointments had a decrease wait time after offering appointments than patients without appointments (Mahomed, 1998). sufferers who did no longer attend docs or accumulate recurrent prescriptions did no longer benefit from appointments. however, as soon as the program was carried out, affected person ready times improved dramatically, due to one day within the comply with-up study. workforce individuals were fearful at the beginning, however in the end became enthusiastic about the initiative, consistent with cognizance companies and interviews. The appointment procedure piqued sufferers' interest at every stage. Prescription blocks were shown in studies to shorten patient ready times in severe instances, despite the fact that they'll now not be suitable for all patients. group of workers and sufferers held opposing viewpoints, which were compounded through their lack of knowledge of the brand new system (Mahomed, 1998).
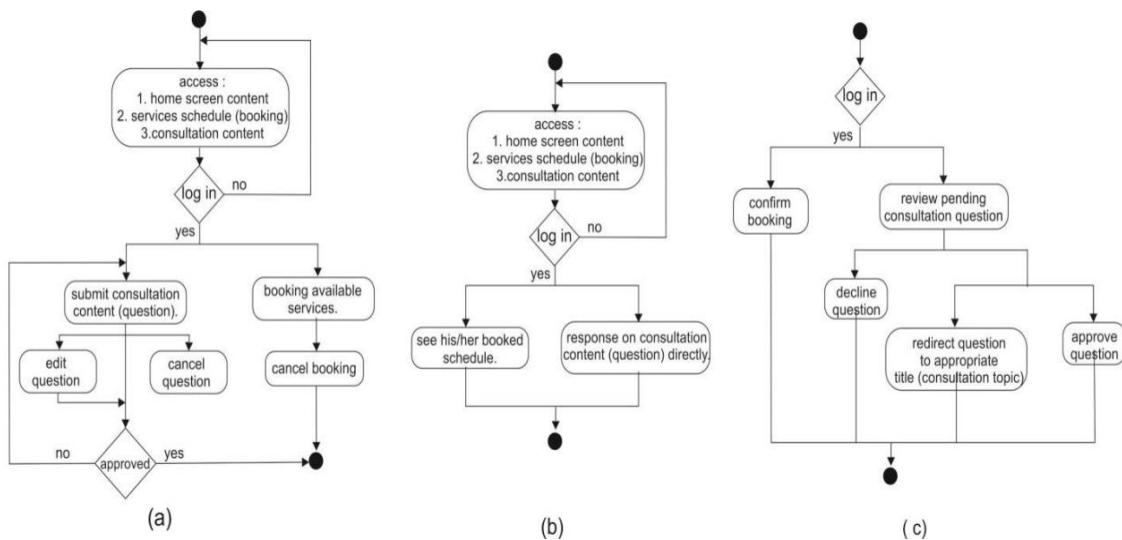
Figure 3.1: Business Process Modeling

3.2 Requirement Collection and Analysis

Affected person management appointments, in keeping with Dexter (1999), are a pc utility used to control and decrease patient waiting time at a fitness care organization. a few health care establishments might not have an appointment system in location. As a result, patients should wait longer than they might in a health care provider that accepts an affected person appointment program. sufferers may additionally experience forgetting and abuse while waiting an hour or extra for hospital therapy in the medical institution. Patients can evaluate the degree of provider at a health care group if they're given a period of appointment (Dexter, 1999). As a result, developing an affected person selection system at a health-care facility necessitates the employment of a complicated linear version that captures many factors of the real gadget (saving time, decreasing idle time, etc. As a result, the appointment calendar depicts the real scenario of the healthcare organization in fee of patient appointments (Rohleder, 2002). The general exercise of scheduling and reviewing patient appointments, on the other hand, is focused at the patient's medical state, and fine practices that are extra attentive to the patient's wishes are best (Klassen, 2002).

3.2.1 Software Requirements

To develop this application, we used following Software Requirements:

- Operating System: Windows 8.1, Windows 10.
- System Design: Visio, draw.io, Lucidchart.
- Language: Java, XML
- Database: Firebase
- Tools: Android Studio
- Browsers: Firefox, Chrome.

Software Requirements, for running the application:

- Operating System: Android
- Network: Wi-Fi or Cellular Network

3.2.2 Hardware Requirements

To develop this application, we need the following Hardware Requirements:

- Processor: Intel Core I5
- RAM: 8 GB
- Space on disk: minimum 10GB

3.2.3 Functional Requirements

- Graphical User interface which the application user.
- Give ease of understanding to the application through Wi-Fi or cellular network Firebase that stores the data or information to be displayed to the user.

3.3 Use Case Modeling and Description

3.3.1 System Model

- Users Module
- Admin Module

3.3.2 Use Case Diagram and Description

A use case diagram is a graphic depiction of the interactions among the elements of a system [5]. Figure 3.2 shown Self-protect system use case diagram.
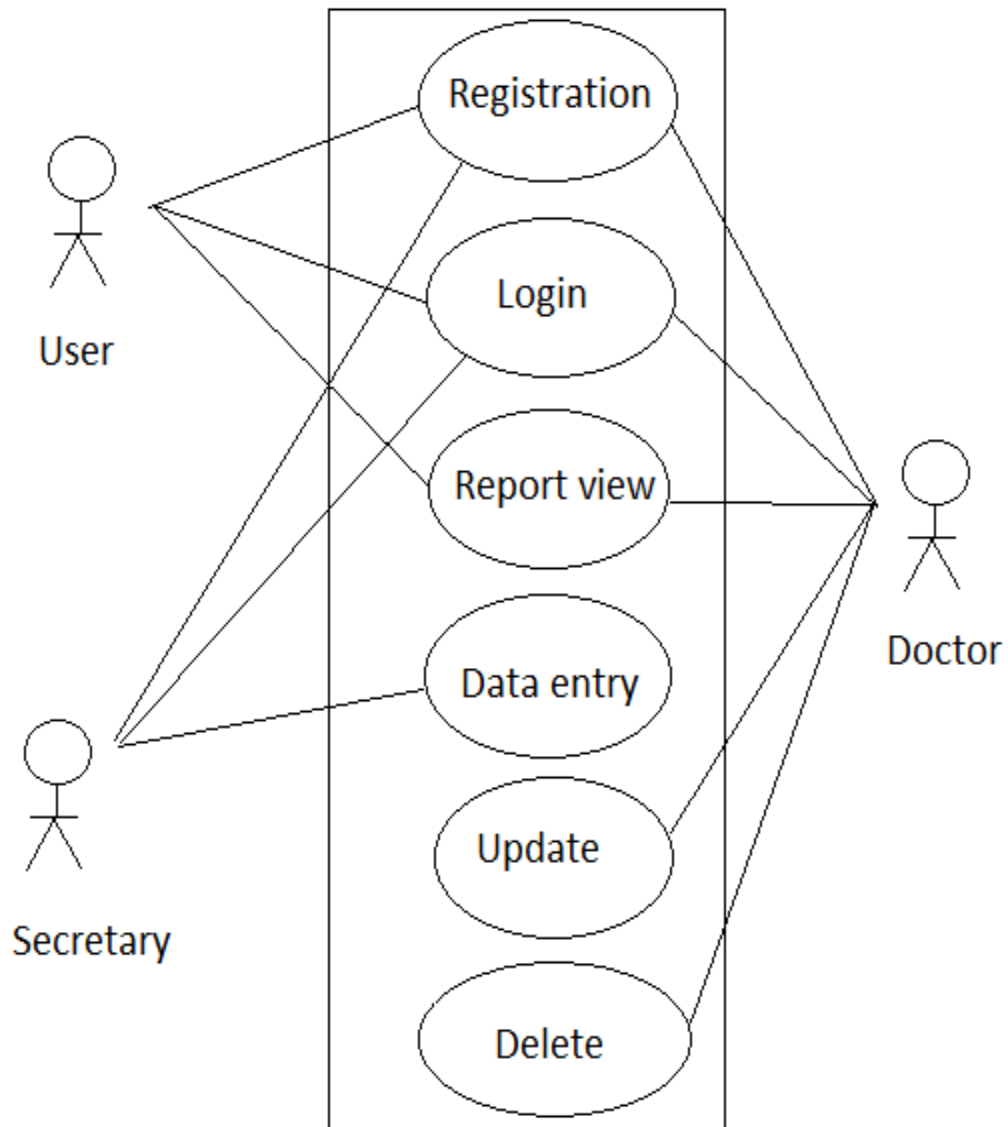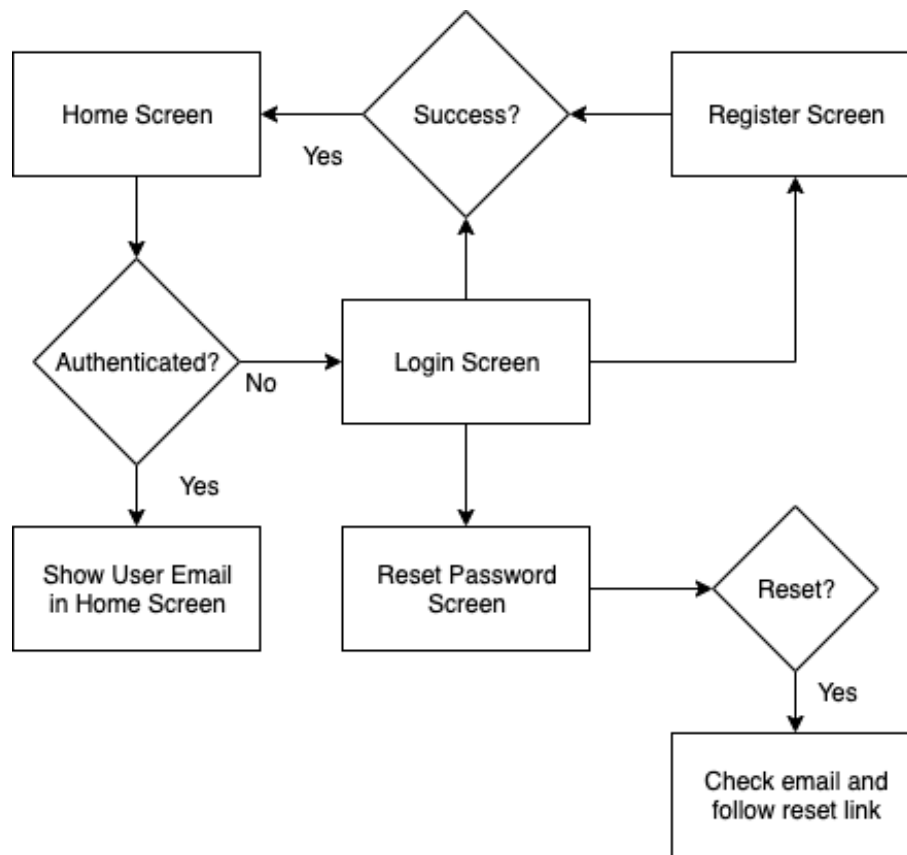

Figure 3.2: Use Case Modeling

3.4 Logical Model

Figure 3.3: Logical Model

3.5 Design Requirements

Secretary: The secretary's job is to deal with the patient before seeing a doctor

- The Secretary will add a new patient to the system. Every patient will be saved under a unique 5-character file that will be used continuously in each step. The clerk must complete a patient personal information form that will include all the patient's information such as name, address, blood group, reason for the visit, etc.
- If the address or phone number is changed which is quite common in everyday life, the secretary may edit the patient's details. (The nurse may edit information such as address, phone number, contact name and emergency situation but may not be able to change details such as patient name, age or blood group)

- The secretary must set out the patient's medical expenses. You will add costs related to consultation, reports, pharmacy etc.
- The clerk must clear the debt so that he can add the amount paid to the patient and review it in the patient file. In this way he can keep a record of what each patient's medical expenses are and how much they have paid and how much they have to pay.
- The secretary can see the entire list of patients who have been enrolled in the program (the secretary can see personal information but not medical history or medication).
- The secretary can see the list of doctors registered in the program with their names, phone numbers and email.

Doctor: The doctor's job is to see the patient. Before seeing a doctor, the patient is already registered in the system and has a file number with all of his or her information

- Physicians can add information related to medical reports and build a patient's medical history. In the event that a medical report already exists, the old report will be displayed in stages and the doctor may edit it or add other items to it. The logic behind this is to provide benefits to doctors. In a day-to-day situation where doctors often specialize in certain aspects of the human body, patients usually have to see more than 1 doctor in the hospital. In such cases, if the report has already been submitted by the doctor, if the patient sees another doctor and the doctor wants to make a report, he may be able to see the old report he can edit or add new ones to the existing one. .
- Doctors can add dosage and dosage to patients' files. Each entry will be followed by a start date and an end date. In this case the old medicine will also be available and at all times, a new drug will be added on the first day until the date you have to continue.
- Doctors can see patient details, treatment costs, add, review medical expenses, pay, see in-depth patient profile with personal information, payment information, medications, medical reports, etc.
- Doctors can see a list of registered patients and can view the medical history of any patient the secretary can see.
- The doctor can see the list of secretaries registered in the system

- Physicians will have the option of emergency communication with patients. In this conversation, he can send a text or reply to a patient. It is similar to the message feature within the app

Patient: The patient wants to keep a record of their medical history and medication and can view it when needed.

- Patients can enter the file number and see all the details related to it.
- The patient does not need to sign in or register for the program. He can simply enter the file number and view all personal details, medical history and medications that the doctor contacted and his payment details.
- Patients can send a In the event of an emergency, send a message to the doctor.. There is a full message feature where patients can send a In the event of an emergency, send a message to the doctor.
- Whenever a patient opens his file using a file number, in the event that he receives a message from a doctor, he will be notified and receive a toast message.

When I first began designing the project, I made every effort to keep it basic and user-friendly for all users. It is critical to be efficient. As a result, I keep it in mind so that my project may function effectively and smoothly on the app.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-End Design

The front-end design of any program is critical since it is how people interact with it. We made every effort to make it user-friendly and clear.

We utilized Java with Android Studio to create the user interface. Our application contains a lot of pages, therefore we had to create each one individually. Let's have a look at various pages, including their design and code.
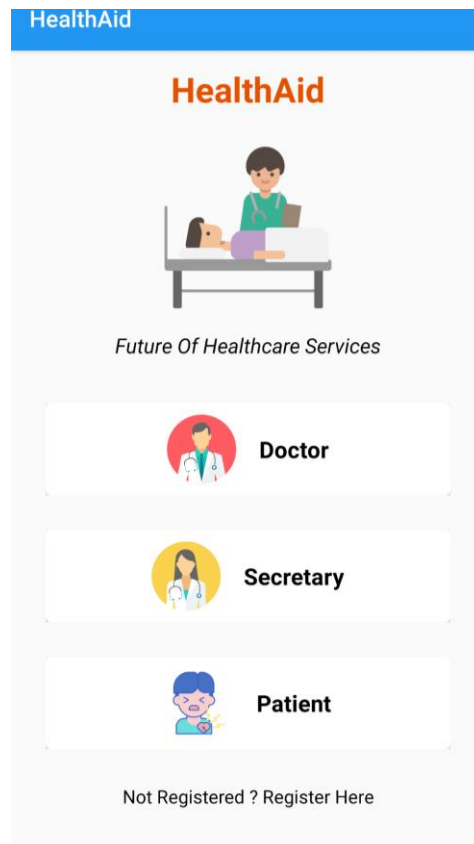

Figure 4.1: App Landing Page

In Figure 4.1 is the app landing page. It is designed with Android Studio. At first when someone opens our app, he/she will view this page. This page will ask him which role he wants to choose to use the app.
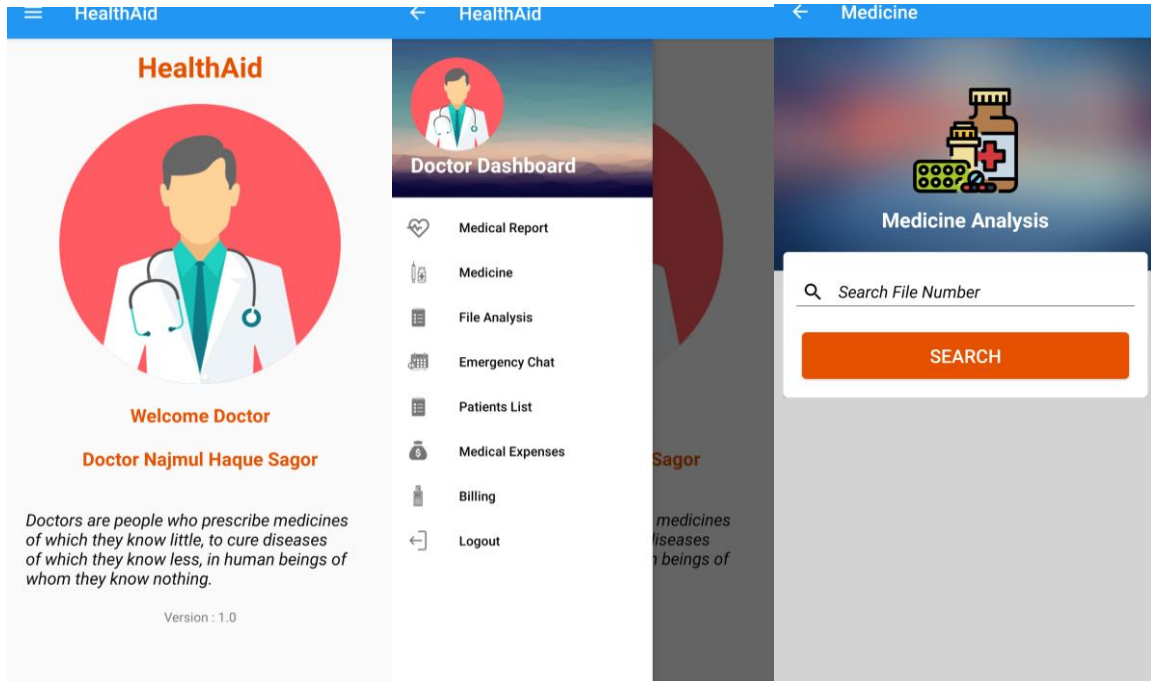

Figure 4.2: Doctor Dashboard

In Figure 4.2 is the Doctor Dashboard. Doctor can manage all of his activity from here.
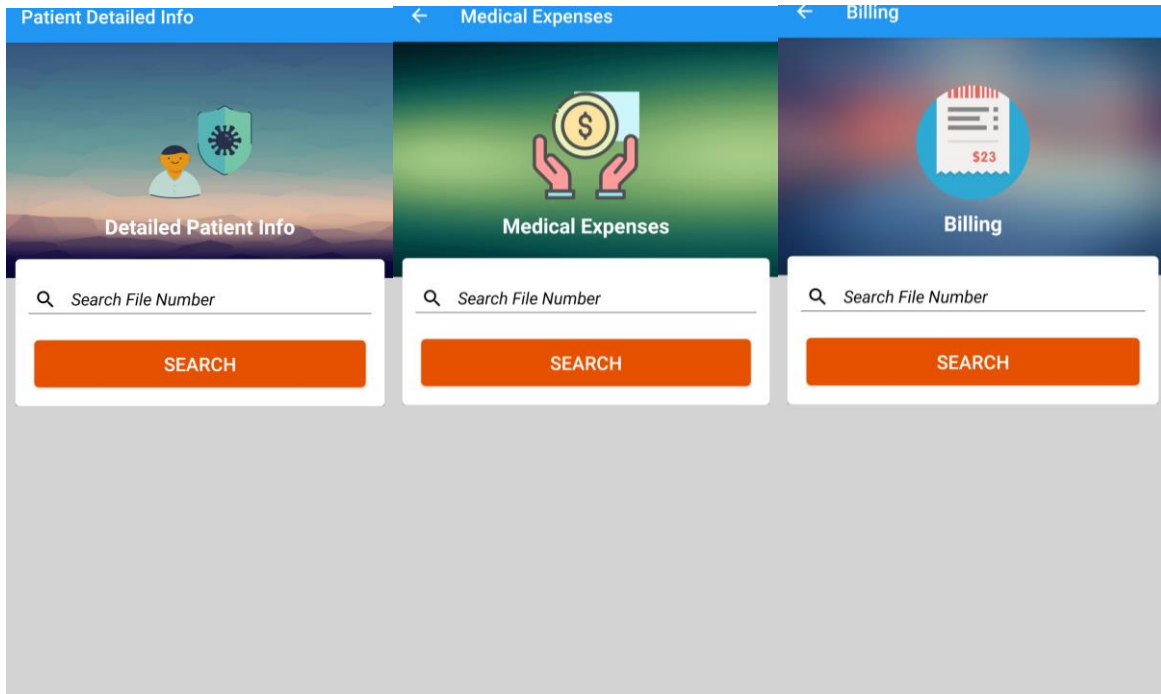
Figure 4.3: Patient Information

In Figure 4.3 is patient information. Secretary will enter patient information here.

4.2 Back-End Design

Based totally on the diagram, software primarily based on mobile telephones could have a domestic phase where customers can access different gadgets together with health or any article from the sanatorium and they also can access photographs of the hospital gallery. The login / login phase will be upgraded to provide more admission to user functions. The cellular app could be used by the affected person and the physician as users at the same time as the administrator will use the website gadget as their console to screen or screen the records. The types required by way of of users other than the login segment are the booking segment and the online session section in which the affected person and medical doctor reserving phase is exceptional, the patient reserving segment will display all of the services available at the next reservation medical institution. seven days and the health practitioner will imply the related time booked for the offerings the medical doctor is responsible for. additional additives might be upgraded to help the software as a part of the notification, setup phase and more.

The software makes use of the firebase authentication feature to complete the login / reg feature, for the duration of which the person has efficiently logged in and the app will read the person's facts and shop it at the firebase website for future use. The booking phase will display the schedule of each scientific service available according to the statistics from the health facility records server 7. When an affected person books a medical provider info might be stored at the firebase website, each time the reserving phase uploads a scientific offerings agenda. no, as soon as booked the app will provide a token to the carrier in the reservation list in line with the reservation

booking details at the firebase related to the name of the carrier, responsible physician, date and time to make sure that no different affected person can book the same booking inside the exact identical software. The medical doctor's booking section will first check at the firebase internet site whether any patients booking the provider experience after which examine the information with the service agenda from the sanatorium website and display the agenda-related schedule best. inside the consulting device logged users can submit their question approximately a fitness hassle a good way to be stored on the firebase internet site and pending facts, the net-based totally administrator software will access the question details to be reviewed, if the administrator is of the same opinion that the query has appropriate content inside the system. will alternate the query data from pending authorization and the mobile application will display it and offer notification to the related consumer whether their query is accepted or now not.

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of The App
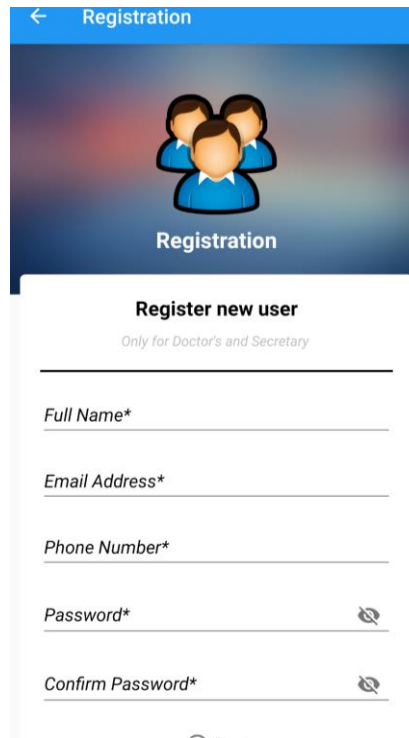

Figure 5.1: Registration Page

Firebase authentication is used for login and registration. Firebase authentication is a simple method of authenticating app users. It provides an easy flow of verification and login procedure that is available for practically every application, not just for users but also for developers. Firebase allows you to log in with your email and password, phone numbers, or social media accounts like Facebook, Google, Twitter, and GitHub. All you have to do to authenticate your users is obtain user verification credentials and send them on to them. SDK for Firebase Authentication. These credentials can be an email password, a phone number, or a token from an identity provider such as Facebook, Google, Twitter, or GitHub. Firebase will validate the information when you transfer the data, and you will receive a response indicating whether or not authentication was successful.
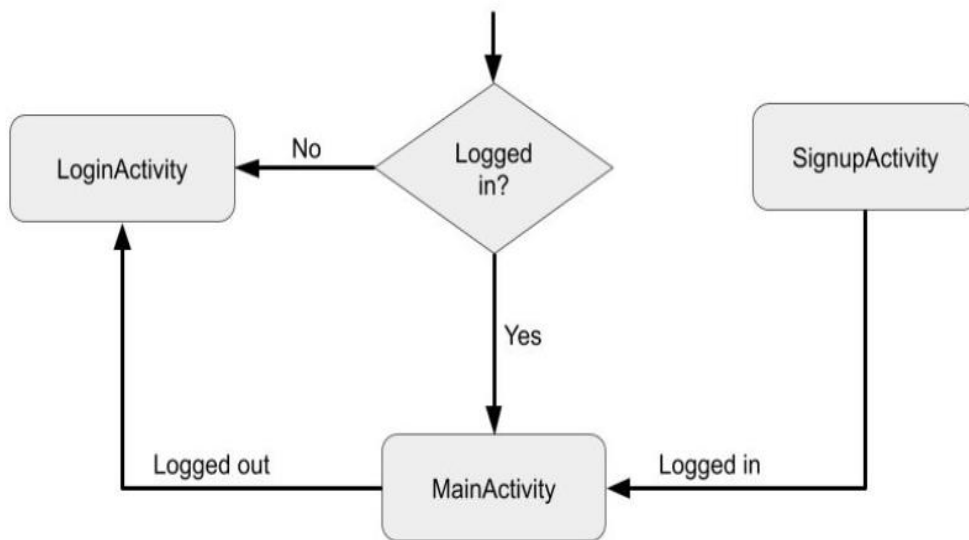
Figure 5.2: Firebase Authentication Diagram
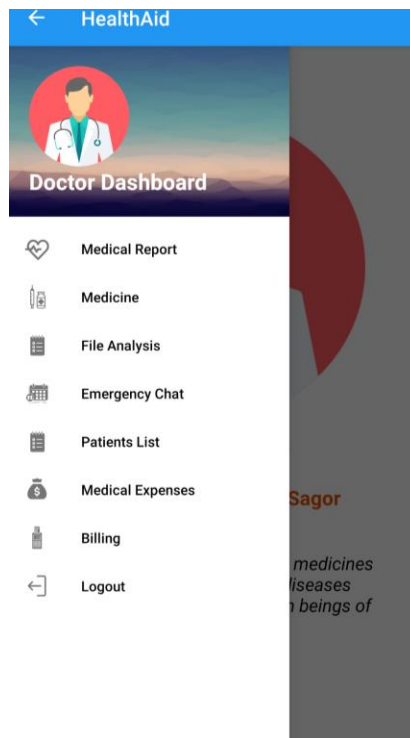
Figure 5.3: Doctor Dashboard Implementation

5.2 Implementation of The Website
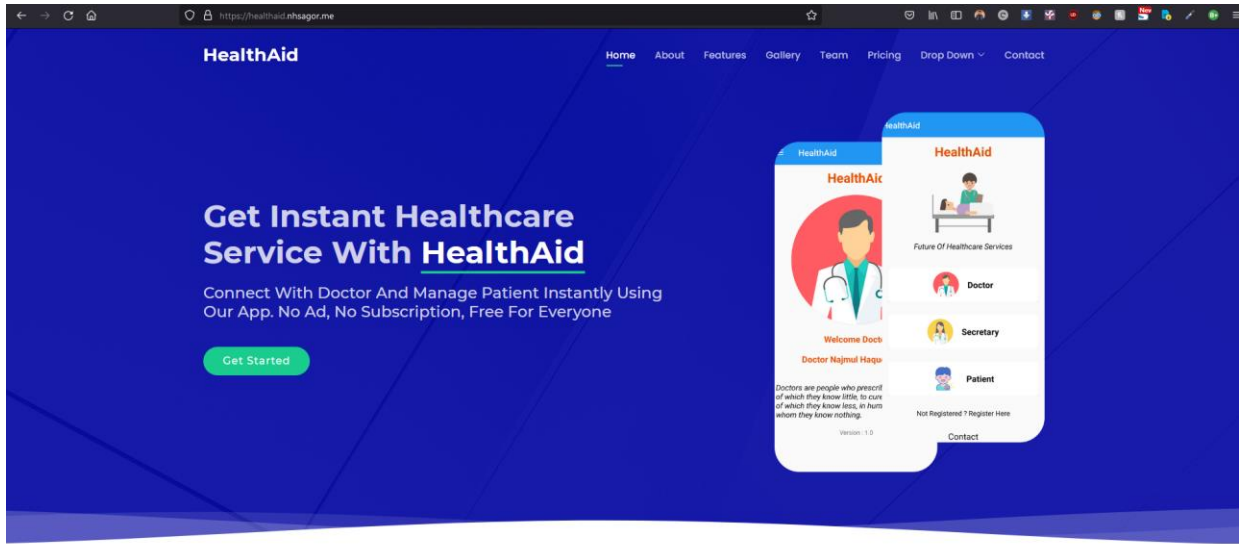
Figure 5.5
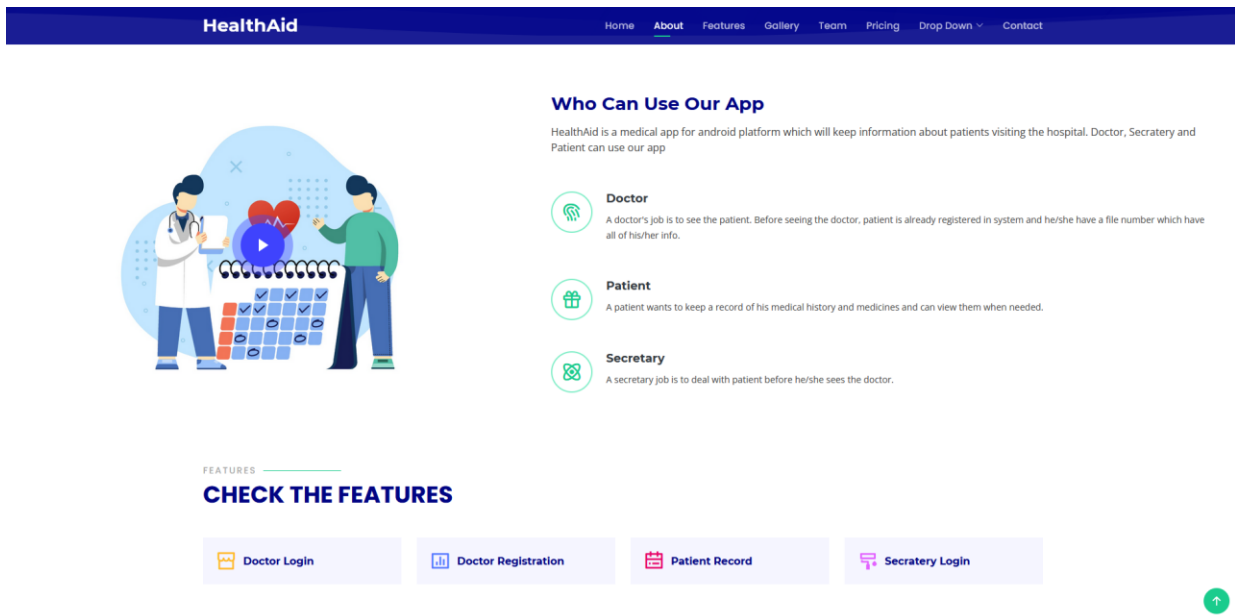
Figure 5.6
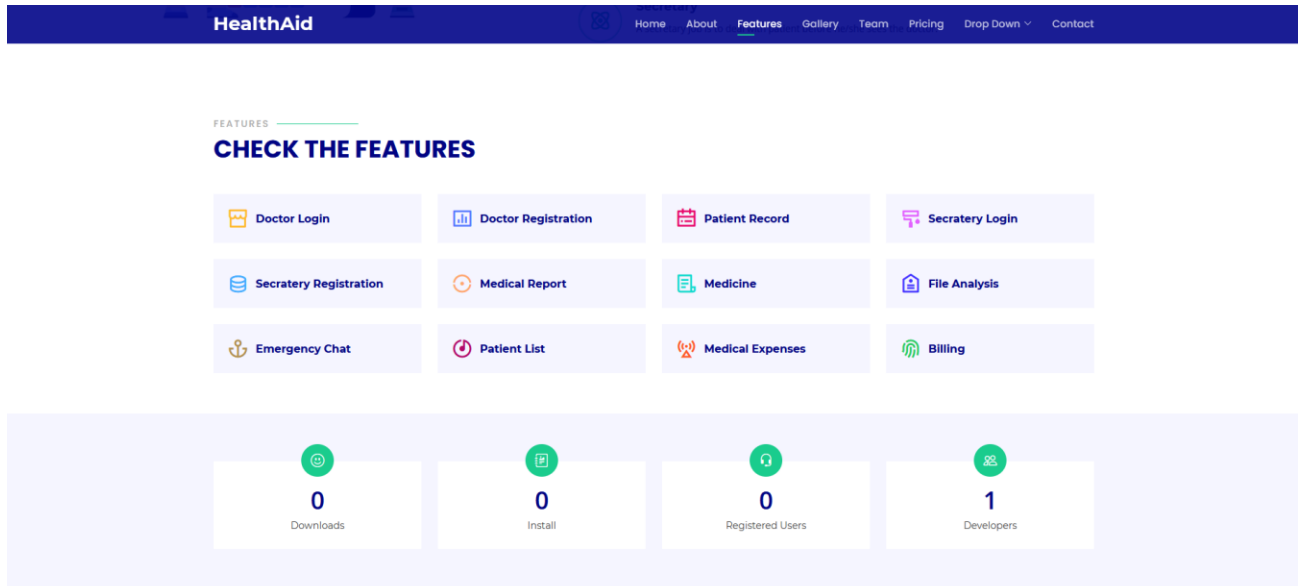
Figure 5.7:

The Website is built with HTML, CSS and Bootstrap. It will help users to download the app and communicate with the doctors easily. Bootstrap is a framework to help you design websites faster and easier. It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels, etc. It also gives you support for JavaScript plugins.
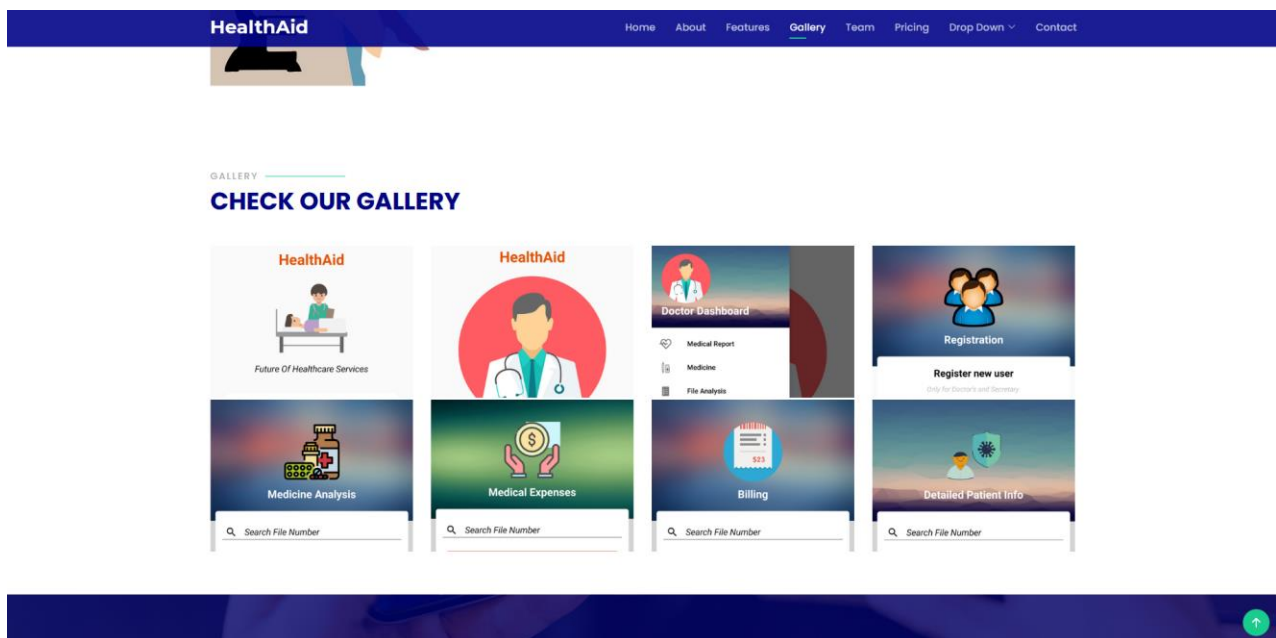
Website Codebase:

5.3 Implementation of Interaction

Interactive apps are critical to the success of any project. As a result, it is critical to the project's success. Every person who uses the internet in our nation expects user-friendly software. People are uninterested in any application with a high level of complexity. As a result, my engagement was given top importance in the development of a user-friendly program. As a result, I made every effort to make this online application as user-friendly as possible.

5.4 Testing Implementation

I try to test this web application in a variety of ways after it has been successfully launched.

5.5 Testing Result and Reports

We must test the application in order to detect problems. During the testing, I encountered a number of bugs. I've also corrected virtually all of the problems I've encountered. More testing of my application is required before I can eliminate more complications.

CHAPTER 6

IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY

6.1 Impact on Society

An App with patient appointments has a huge impact on society. The patient appointment procedure, additionally called the health-care appointment procedure, has been in the area for a long term (Harper, 2003). patient appointment control has pre-present functionality and has simplified line models and allowed for extra flexibility in making plans occasions. Another try was made to shorten the waiting time among the affected person and the doctor by way of applying statistical line models (Gamlin, 2003). historically, but, the appointment procedure prioritizes the doctor's time over the patient's time (Wijewickrama, 2005). As a result, the appointment manner is meant to shorten scientific visits, but the current approach is depending on the affected person's and physician's priorities (Takakuwa, 2005). as it displays the affected person's appointment time at the health facility and manages the patient's ready length depending on the sort and timing of the patient appointment, the affected person appointment gadget has complicated architecture (Gamlin, 2003). furthermore, the affected person appointment program advanced by way of the worldwide journal of laptop technology and statistics generation (IJCSIT) Vol 6, No 4, August 2014 62 is supposed to: manipulate doctor time, lessen affected person ready time, reduce doctor downtime, reduce nurse downtime, and improve health-care carrier best (Harper, 2003).

6.2 Impact on Environment

Our application is totally environment friendly. Previous studies have indicated that the longer the appointment is defined because of the length among the patient's request and the actual appointment date, the much more likely he or she will be able to cancel or fail to expose up (Gallucci et al. 2005). This proposes an easy technique to prevent cancellations and exhibitions: invite patients to return right away or schedule an appointment for the day they wish to be visible (Murray, 2000). This is known as open get admission to (OA) or superior access policy (Tantau, 2000), and it has lately grown to be a distinguished exercise and take a look at the topic. Several authors speak of their fine and poor reviews with OA (Dixon et al. 2006). A few docs are adamantly

opposed to OA (Murray and Tantau 2000), at the same time as others are adamantly against it (Lamb, 2002).

6.3 Ethical Aspects

If we consider the ethical aspect there is nothing to worry about. An internet-based device is similar to an app-based system. A website is a computer program that uses a web server to offer entry to a hard and fast list of related internet pages, and a web is made of a web page normally referred to as an internet web page or website (Alex, 2000). A device is a group of separate additives that work collectively to reap a common aim. an internet-based totally software is one that a user may additionally get admission to over the net with the intention to do a given venture for a unique motive. The net is a software program that permits computer systems and computer networks to communicate with one another. It connects tens of millions of laptop networks in the course of the world and allows users to remotely get entry to facts stored on other machines (James, 1999). consistent with Chua (2010), the network's choice for a better healthcare system, as well as the alarming number of appointments for lacking people, has brought on the healthcare business to trade how it gives offerings. With present day improvements in IT technology and the health-care system being regarded as a key machine, an appointment reserving device is at a crossroads in terms of imparting effective, dependable, and well timed access to health offerings. The maximum frequent way to make a reservation is thru fax, smartphone, or e-mail. however, as the net's presence grows, the healthcare business is adopting a web appointment booking machine. Taiwan has a web-based totally choice process, and all and sundry need to sign in for the country wide health insurance policy. when a person need scientific assistance, she or he need to first offer his or her health practitioner's medical insurance card to the hospital. there are various alternatives for scheduling an appointment. If someone's fitness does no longer improve, they are able to journey right away to the clinic for each day touch or plan an appointment at domestic via telephone or e mail (Gruca, 2004). Hospitals may additionally interact with their sufferers using various technologies available at the net. With the introduction of the internet, increasingly hospitals have begun to provide web site design offerings. digital patient-to-affected person communique has the capability to boom fitness-care efficiency and efficacy (Wakefield, 2004)

6.4 Sustainability Plan

Descriptive arrival instances had been utilized in a single utility advanced to music patient appointments. due to the nature of the appointment calendar, this version implies that particular arrival instances can't be verified right now by means of date (Rohleder, 2002). As greater appointments are made inside the future, the proper version of the decision's arrival may have a smaller have an impact on on the stairs main up to the appointment. As a end result, the difficulty in designing an appointment machine is to assemble a device this is suitable for the fitness-care device's setting (Klassen, 2002). As a end result, an authorized health care professional can time table the perfect go to for the patient. Klassen (2004) devised a new approach of affected person management that involves numerous scheduled appointments at numerous instances. sufferers can touch at any time, but they must reschedule appointments once the time restriction has expired. moreover, special combinations of more than one appointments and double bookings are evaluated and advocated for numerous uses depending on the field of health care because the range of the appointment software has little effect at the performance of the appointment device, specifically to keep appropriate performance, until the machine has too many alternatives. Rohleder (Rohleder, 2004). in step with a number of observe on affected person appointments, there are guidelines or requirements for scheduling appointments, including avoiding reserving more than 20 or 30 customers, and the appropriate practice is to schedule patients initially after which unfold the rest flippantly throughout time. based on center-of-the-road provider instances (Klassen, 2004). alternatively, a patient can call an appointment without knowing the kind of appointment or the road wide variety, and without understanding whether or now not the appointment is flexible. The unique timing of every affected person is once in a while uncertain, however this isn't continually the case (Rohleder, 2004). another machine constructed via Mustafa (2004) permits a registered patient to get admission to and review a health practitioner's alphabetical list, in addition to select a physician to contact via e mail and provide a profile. The patient can also look up his or her lively and inactive dates on the active medical doctor calendar to time table an appointment. If the patient prefers, he or she can examine the calendar and pick out any legitimate day in any month to time table an appointment (Mustafa, 2004). The patient will then acquire an electronic mail from the system either confirming the appointment time or informing them that the time they asked has already been taken by way of another affected person or has been blocked with the aid of the physician. A affected person appointment system frequently lets in patients to make all in their

selections and sports, along with deciding on a health practitioner, scheduling an appointment, and having access to the health care device at any time of day or night time. while not having to waste time looking ahead to the nurse or making lengthy smartphone calls On weekdays, Wijewickrama and Takakuwa (2005) suggest that health-care employees work from eight:30 a.m. to five:30 p.m. patients selected for the health care institution, sufferers appointed on the identical day (admission), patients coming for screening, and new patients all arrived all through this era (Wijewickrama, 2005). Suspended patients are given precedence over people who journey for session. As a end result, even though the consultation session is only a few minutes, those final sufferers ought to wait a prolonged time within the waiting location to peer the health practitioner (Takakuwa, 2005). any other software become created via Porta-income et al. (2005). The primary purpose of this system is for a professional nurse and a patient to have interaction, assess, and ebook an appointment with a fitness care group, beginning with a expert nurse and a affected person who calls the health care facility. A health care organization can also be located in a variety of settings. As a result, pc sources and consultations have to be to be had to reach out to many resources, along with hospitals, preferred practitioners, or even sufferers themselves. For greater than a yr, Porta-income et al. (2005) investigated 534 patients. 195 sufferers did not go back for the second one scheduled appointment after the primary, at the same time as 203 sufferers moved directly to the 1/3 scheduled consultation. Admission to fitness care turned into the maximum commonplace motive for planned visits; the median duration between the first and 2nd visits was 21 days, 27.five days between the second one and 0.33 visits, and forty eight days between the first and 0.33 visits. while patients who neglected 3 consecutive appointments had been as compared to learners, it become determined that the first had a worse purposeful stage (at the primary go to). Su et al. (2003) performed their studies at a private health facility with numerous clinics. in the session segment (morning or afternoon), the average patient load fee is 20 at each health facility, and the health care gadget employs each a affected person appointment and a affected person enrollment model. The device permits sufferers to consult with the registrar along their own doctor of desire (Shih, 2003). Su and Shih's (2003) control appointment technique relies on the first 20 being reserved for booked patients, with simply seven receiving making plans. After the 20th quantity, there are some unusual numbers to input. the primary affected person's arrival time is assumed to be the same as the medical institution's starting hour. sufferers were allocated to one of 3 time durations and were notified of their anticipated arrival timings (Su, 2003). If a

deliberate affected person fails to show up on time, the next to be had patient is visible right away. The service management concept right here is constructed on "first impressions" to maintain fees down.

CHAPTER 7

CONCLUSION AND FUTURE SCOPE

7.1 Conclusion

To improve applications, the planned online selection procedure has been launched in the Android studio, and the website has been upgraded using HTML and PHP. Modules have been created to organize the project's activities. APIs are used to project and share data between the website and the Android app. The suggested system is well-designed and features a user-friendly interface. For future work, managerial and PhD modules have been added to the Android app. That will make it easier for the doctor to register for the app and use all of its features. Instead of utilizing the website, the administrator will be able to handle patient and physician information using the app. To avoid unethical users, a fee or a set amount may be levied to users / patients while arranging an appointment. Many people join for no other reason than to have fun and are unconcerned with setting appointments. Developing a patient module, which involves setting appointment reminders and preserving appointment dates on the calendar, is another potential option.

7.2 Limitations

Right now, the app is for android only. iOS users or PC users cannot use my app. This is the only limitation of HealthAid.

7.3 Future Scope

I want to add some more features in this Application. In future I will add the function of direct doctor to patient video call.

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APPENDIX

Appendix A: Project Reflection

We began to build this project from Spring-2021. We did a lot of research for this project. We have tried to learn about management Health App available in the market. We have collected a lot of information from those Health Apps from various platforms. Then we took the decision to build this project. Then we choose Firebase for the database.

This is hard to try to keep it user-friendly. We make a user-friendly UI for the application. This interface will be understandable for the users. So, we hope it will reduce complexities for the users. After developing new features and facilities it will be very helpful and entertaining for the users. So, We hope the Bangla HealthAid App will be very popular to the users.

PLAGIARISM

Plagiarism Report

HealthAid

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