DRUG AND DOCTOR INFORMATION MANAGEMENT SYSTEM

(DDIMS)

BY

K.M.MYNYL ISLAM
ID: 152-15-5962

ANIRUDHA DHAR PARSH
ID: 152-15-5742

AND

SHARUK AHMED
ID: 152-15-5796

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

Supervised By
Enamul Karim
Lecturer
Department of CSE
Daffodil International University

Co-Supervised By
Nusrat Jahan
Lecturer
Department of CSE
Daffodil International University

DAFFODIL INTERNATIONAL UNIVERSITY

DHAKA, BANGLADESH

MAY, 2019

APPROVAL

This Project titled **"Drug & Doctors Information Management System"**, submitted by K.M.Mynul Islam, ID No: 152-15-5962, Anirudha Dhar Parash, ID No: 152-15-5742, Sharuk Ahmed, ID No: 152-15-5796 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 May 2, 2019.

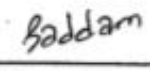
BOARD OF EXAMINERS

Dr. Syed Akhter Hossain — **Chairman**
Professor and Head
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner

Dr. Md. Ismail Jabiullah
Professor
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Dr. Sheak Rashed Haider Noori — **Internal Examiner**
Associate Professor & Associate Head
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University



Dr. Md. Saddam Hossain Mukta — **External Examiner**
Assistant Professor
Department of Computer Science and Engineering
United International University

DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Enamul Karim, Lecturer, 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.

Supervised by:

Enamul

Enamul Karim
Lecturer
Department of CSE
Daffodil International University

Co-supervised by:

Nusrat Jahan

Nusrat Jahan
Lecturer
Department of CSE
Daffodil International University

Submitted by:

K.M.Mynul Islam
ID: 152-15-5952
Department of CSE
Daffodil International University

Anirudha

Anirudha Dhar Parash
ID: 152-15-5742
Department of CSE
Daffodil International University

Sharuk Ahmed

Sharuk Ahmed
ID: 152-15-5796
Department of CSE
Daffodil International University

ACKNOWLEDGEMENT

First we express our heartiest thanks and gratefulness to almighty God for His divine blessing makes us possible to complete the final year project/internship successfully.

We really grateful and wish our profound our indebtedness to **Enamul Karim**, Lecturer, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of "*Android Development*" to carry out this project. His endless patience scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice ,reading many inferior draft and correcting them at all stage have made it possible to complete this project.

We would like to express our heartiest gratitude to **Dr. Syed Akhter Hossain,** Professor, and Head, Department of CSE, for his kind help to finish our project and also to other faculty member and the staff of CSE department of Daffodil International University.

We would like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

Finally, we must acknowledge with due respect the constant support and patients of our parents.

ABSTRACT

This project is on “DDIMS” (Drug and doctor Information management system). In this project, we have built an android based e-medication platform with different types of necessary and unique features for the android users. The main purpose of this application is to make a one stop solution for getting the information of drugs, doctors and hospitals easily. This application is beneficiary for the people who are in an emergency situation or in need of a medical care. Users can easily get the medical information and can set an appointment to a doctor. They can also provide their feedback through this application. Users can address any problem through email and the admin can provide a solution to the problem. This application will also help users to find information about various medicines. In the sake of finishing all task, the application testes in various stages and was discovered working effectively. Now-a-days people keep their basic information in the smartphones and that’s why we like to add basic medical information in that.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

1.1 Introduction

This Android project will help us to know about the medical services of Dhaka. We can easily find ambulance and move patients in the emergency situation. Dhaka is the capital of Bangladesh. Medical treatment is also better in Dhaka. Many people come to Dhaka every day from different places for better treatment. Many people do not know the medical facilities that are available in Dhaka. They may not know where the hospital is located that they want to go. In this app people can easily know that what ambulance service is nearest to them and in the time of emergency they can easily contact them just by a single click in the app. The app has three important features.

Three parts of Application

i. Drug Information
ii. Doctor Information
iii. Ambulance Service Information

1.2 Motivation

There are currently 8,921,000 smartphone users in Bangladesh. This means Bangladesh is ranked 41st in terms of the countries with the most smartphone users.

Additionally, with the population of Bangladesh being over 166,735,000 this equates to the smartphone penetration being 5.40% - making Bangladesh the lowest ratio of population to use of smartphones out of the top 50 countries in the market.

There are many apps in our country which are Android based and some of them are medical based. In the internet, all the information are scattered around. The information of the drug is available somewhere, ambulance system information is available somewhere else and doctor information is available at some other place but all of them are never found together. The necessity and the reduction of the suffering of people have served us as motivation.

Almost every one of the country uses Android phones As a result, it is possible to spread the information of the drug and doctor through an app. That will bring welfare for the people.

- Drugs Information: Almost everyone in Bangladesh uses drugs in some way or the other. So we need to know the exact concept and value of the drug.

- Doctor Information: Before taking medication, you should consult a good doctor. And to know better doctors, you must know the information about the hospital.

- Ambulance Service Information: We do not have enough ambulances in every hospital, so we should keep the information of different ambulance service centers.

1.3 Objective

Almost 100% of people are dependent on drugs in some way. And before getting the medicine, everyone goes to the doctor early on. When people become seriously ill they contact ambulance services. Otherwise it might cause unthinkable situation. So if you can bring all the issues together, it will be very witty. If people know when the doctor is available and providing this information to them through this app is our goal. This way a lot of time can be saved. Generally, there are some ambulances in every hospital but they are not sufficient so responsibility comes to our ambulance services. Sometimes people cannot find any ambulance service center around and many people die because of this. We believe that drug, doctor and ambulance system can be combined, and it is possible to save a lot of lives. It does not have to be combined only, it is necessary to understand the general usage.

In this study, some major questions are:

- How effective is the "DDIMS" application in general life of any social person in supporting the infusion of technology in a Medicine based Information Application project?
- If there is a question to make the project user-friendly, then what we should do to implement it?

1.4 Expected Output

Most of the people of Bangladesh live in rural areas. The communication is not good in rural areas. They suffer many problems in sickness. After finishing the study we hope we may know

- How to get rid of sickness if they face problem in sickness.
- Where they get solution.
- About their lacking.
- Does they use internet and DDIMS mobile application?
- Does they get benefit from it? Does they get their objective information?
- Does they face problem using internet in google map.

1.5 Report Layout

Our project report consists of 5 chapters.

1. **First chapter** contains the Introduction, Motivation, Rationale of the Study,

Research Question and Expected Output.

2**. Second chapter** contains Introduction, Related works, Scope of the Problem and Challenges.

3. **Third chapter** contains Introduction, Research Subject and Instrumentation, Data Collection Procedure, Statistical Analysis and Implementation Requirements.

4. **Forth chapter** contains Introduction, Experimental Result, Description Analysis and Summary.

5. **Fifth chapter** contains Introduction, Conclusions, Recommendations, Limitations and Implication for future Study.

CHAPTER 2

BACKGROUND

2.1 Introduction

Android is now the most commonly used mobile operating system. Most of the people now uses android operating system. This application is fully android supported and easy to use. Admin and User panel directly can make a deal between them. The Admin panel is the main background of this system. The admin panel task is always hidden from the users. Admin panel can access database and all the information, which are stored by the users. User's tasks like drugs information, doctor information and Ambulance information are stored in the background. Admin can insert, update, delete and read this information. User can sent email to admin for any problem. User can read all information which is added in the app.

2.2 Related works

This application completely not unique but not copied from anywhere. As far as our knowledge, this kind of application is not available in Bangladesh. It is the first information based Application in Medical (Drug and doctor) and Ambulance system .We used GPS to get locations on google map. We also used email, dial call, SMS services to Ambulance and Doctor Appointment. We usually see Doctor Information Apps, Medicine Information Apps[1], Ambulance Service Apps[4], International drug information apps[3] but we've never seen three things together before. There are different apps on Google Map but there are no apps available containing Ambulance's Address and Hospital Address.

2.3 Comparative Studies

Our App is Information Based. We are working with some data first and we have moved forward based on its results. We went to various drug stores and found that there was a high demand for some medicines, so we gathered information about those medicines in our app. In the same way, we can see that some diseases are common in people and we have kept the doctor's information on those diseases. We also gathered the information of the most demanded doctors, not just a doctor. We have collected Ambulance information on the number of places and ambulances. Since the information is our main driving force, we have given more importance to it and we have collected information in order to correct it. We first saw whether our Google Map is correctly reporting information, whether it is locating at the right place or not. We used different data to eliminate error. We checked database and the app multiple times to understand whether

our emails, calls and messages are going well. We all have repeatedly supplied various data and we have resolved the problems later. We have also added data to increase the number of information. Our app is designed to be aimed at making people understandable and easy to use platform. There are some problems in the existing medicine apps[2] We have generally gone beyond complexity and thought straightforward. We are adapting to all types of app permissions. We have complicated the efforts of admin but have simplified user's experience.

2.4 Scope of the Problem

Scope of the Problems in my project was based on the time scheduling. Perfect time schedule applying is so much hard. Compilation PHP code and maintain database on relational table is so difficult. Our project is so easy to use for user, they can easily give their feedback. Anyone can find doctor and hospital info if they have minimum operating knowledge of smartphones.

2.5 Challenges

To complete our study we face some challenges. The main challenge was selecting proper people. We wanted to select a people who understood about mobile technology and mobile application. We had to work hard for this selection. We ask them in their regional language for their understanding.

- Accurate data collection is the hard task for us.
- Give correct feedback to user.
- Most tough task for us is to introduce our application to user.
- Time scheduling.
- Skills for the project.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modelling

Bangladesh is a developing countries. The population of this country is approximately 166 million. The study was carried out in a district viz. Dhaka District is in the central of Bangladesh and is the densest district in the nation. It is a part of the Dhaka Division. So for this large population we made this application to make their life easy and comfortable. In this section we will describe about our development process and requirements. Moreover, tools for the development project, data collection and analysis, logical analysis, design analysis, data processing, statistical analysis and implementation requirements will be discussing in this session.

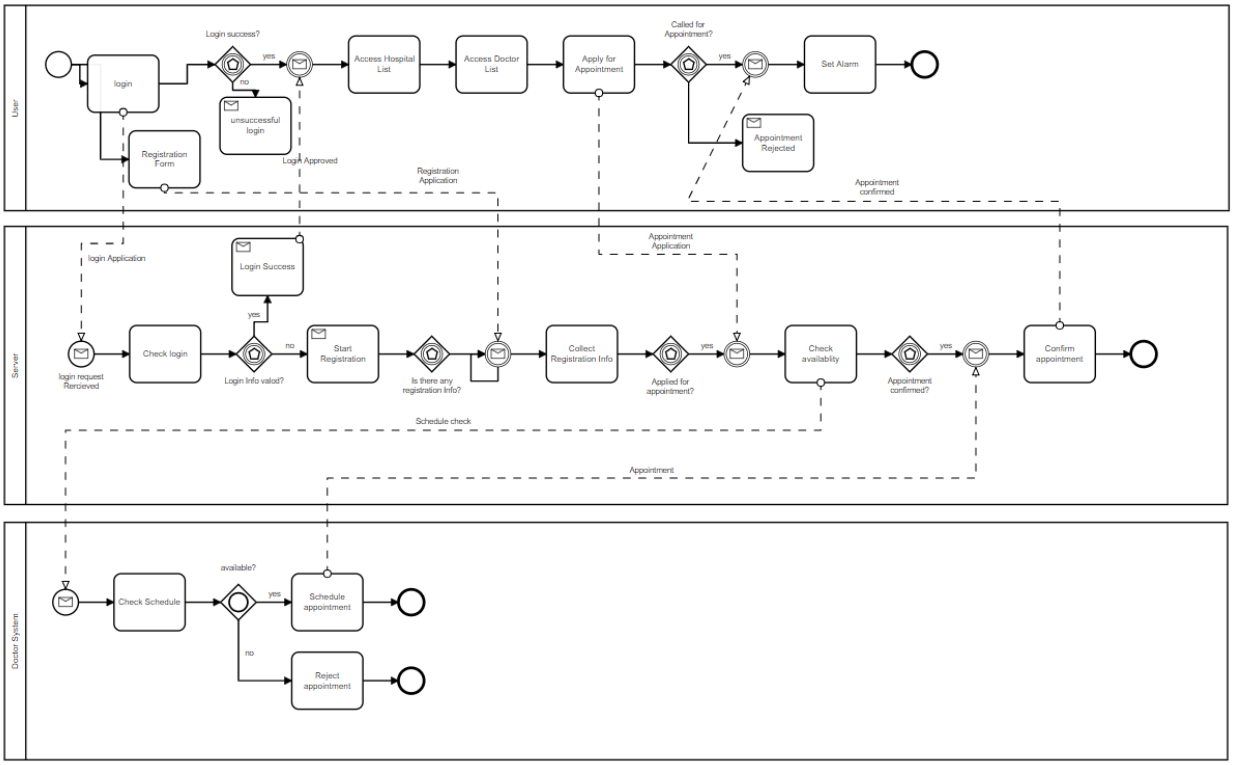


Figure 3.1.1 Business Process Model of DDIMS

3.2 Requirement Collection and Analysis Data

3.2.1 Requirement Collection

Our research subject is DDIMS (Drug and Doctor Information Management System) in Bangladesh and its impact on Bangladesh Medicine. Our research instrumentation is the various data that we collected from hospitals, ambulance services and online databases.

3.2.2 Analysis Data

Use case is an involving UML diagram type and frequently used to explore various system. UML is a general-purpose development modeling language in surface of software engineering, which meant standard way to visualize design of system.

In **figure 3.2.2** had spectacle a use case of DDIMS. Login, verify password, location, hospital info, doctor info, medicine, admin info are the process of the use case. The user must installing the app and the application has a login option. After that use case of the system shows the major functionalities.

3.3 Use Case Modeling and Description

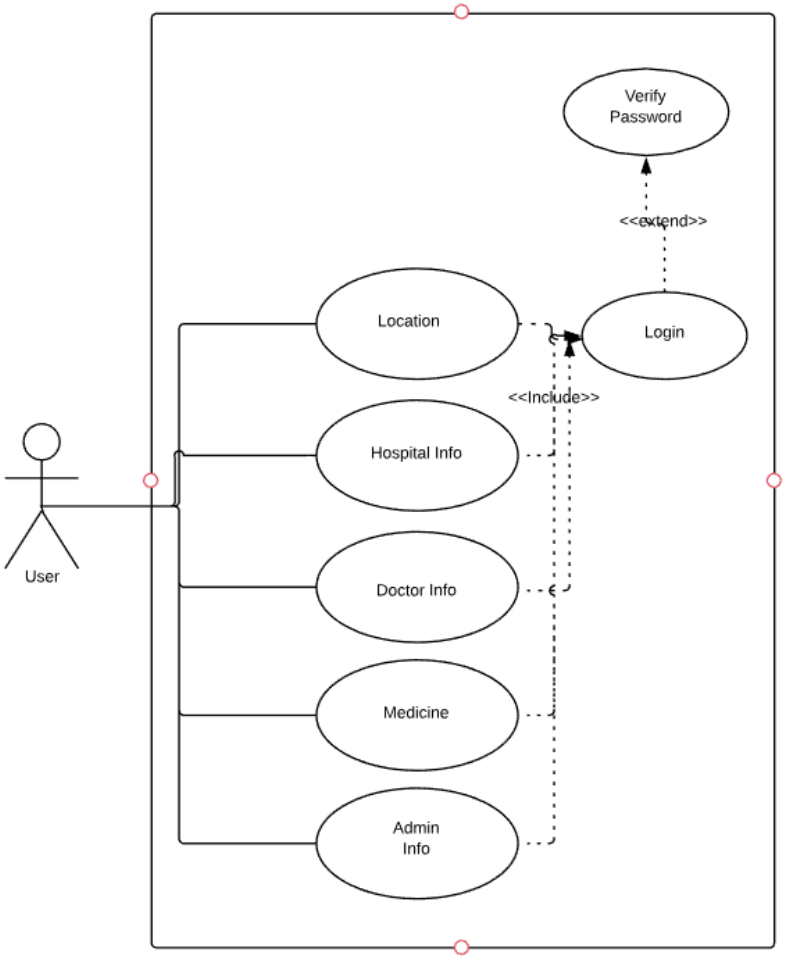


Figure 3.3.1: Use Case for DDIMS

User can access the application by login or registering to the app database. User can access location, hospital Info, Doctor Info, Medicine, Admin Info. These activities are included in login activity. So the user needs to stay logged in to the system in order to access these activities. Login activity extends verify password so that the username and password is verified by the system.

The purpose of this research was to obtain real-life experience in real situations. For this research we collect data on two way. 1st of all we need to achieve knowledge that is available in the internet and in the databases of the various institutions and we also collected the data that we can find in the other research projects on different topics. Once we gathered all the data that can be found online, we went out for field work we went to 4 hospitals and collected the available data. Then we started collect ambulance services data. We collected 43 data from online and 19 data from field work. Our work is still going on and till now we got 10 hospitals, 62 ambulance service and more than 300 doctor information in our database.

3.4 Logical Data Model

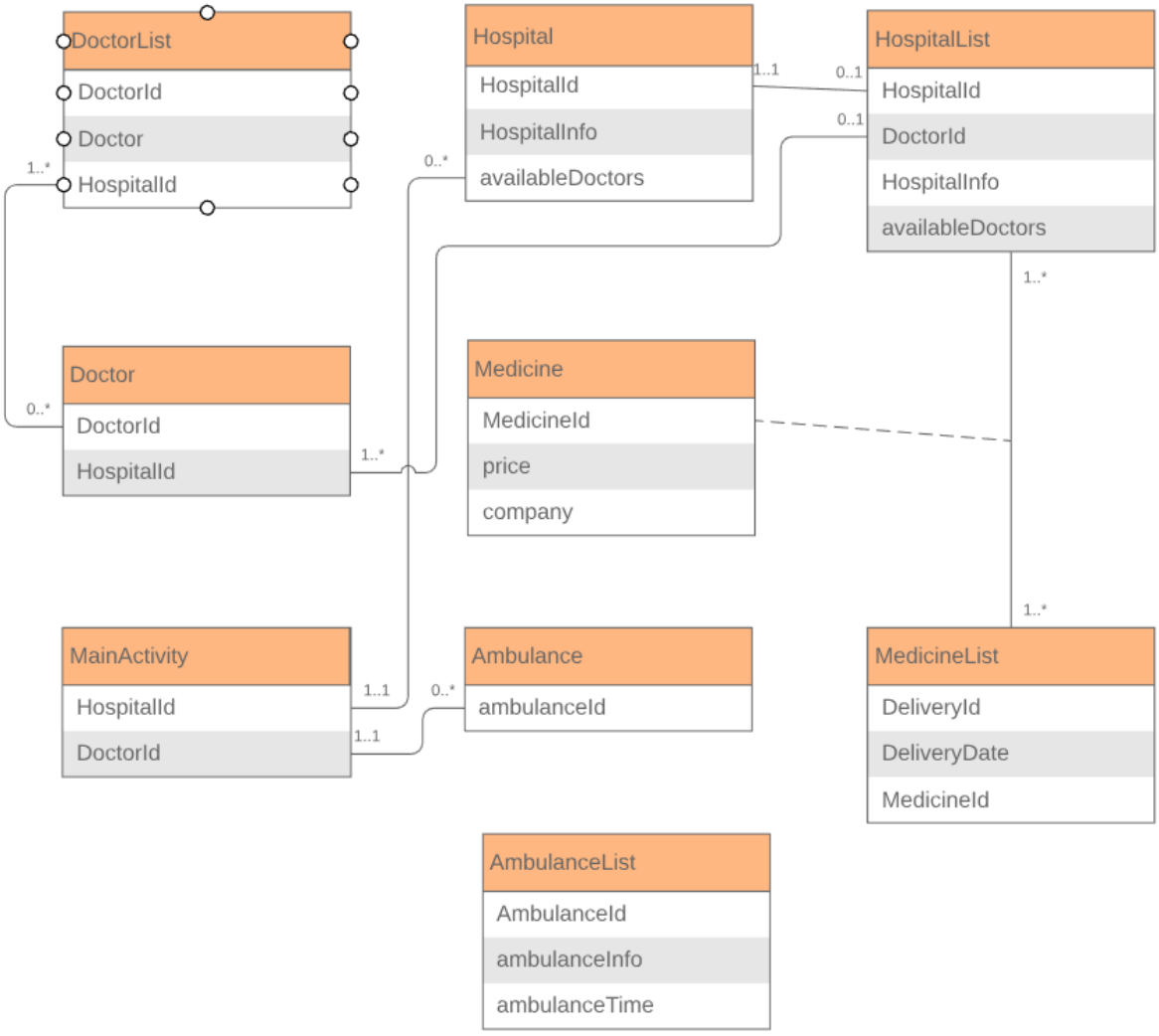


Figure 3.4.1 Logical Data Model of DDIMS

We analysis our data. We look into the following questions: Do they use mobile phone and what kind of phone? How about mobile network? Do they use Drug and Doctor mobile application? Do they use internet? Do they use mobile internet to get Drug and Doctor Information? How to fix if there is any disease? We took total 25 interview. We analysis the data using manual coding techniques. Here smart phone user is 24 and another one uses normal phone. Internet user is 23 people and many people uses Drug and Doctor Application but not the same app, different app with different features. In percentage the smart phone user is 96% and remaining 4% uses normal phone. Table 3.1 show the result of our study.

Table 3.1: Data Result

	Number of People	%
Total	25	
Smart phone user	24	96%
Normal phone user	1	4%
Drug Application user	15	60%
Doctor Application user	16	64%
Ambulance Application user	18	72%
Internet use on other purpose	23	92%
Without using internet get Drug and Doctor information by using mobile phone	2	8%
Using internet But doesn't use Drug and Doctor application	7	28%
Using internet get Drug and Doctor information	6	24%

At first when we asked questions to 50 users, we found their demand so high. When we sort out all of them, we saw that 50 users want confirmation call, email and message, 48 want medicine library, 45 users demanded about Doctor's info, 47 users want Ambulance info. Based on their demand we confirm our UI for the Users and also try to make it more user-friendly.

Table 3.2: Statistical Facilities

	Number of People	%
Contact	30	60%
Drug Info	40	80%
Doctor Info	35	70%
Ambulance Info	35	70%
Google Map	20	40%

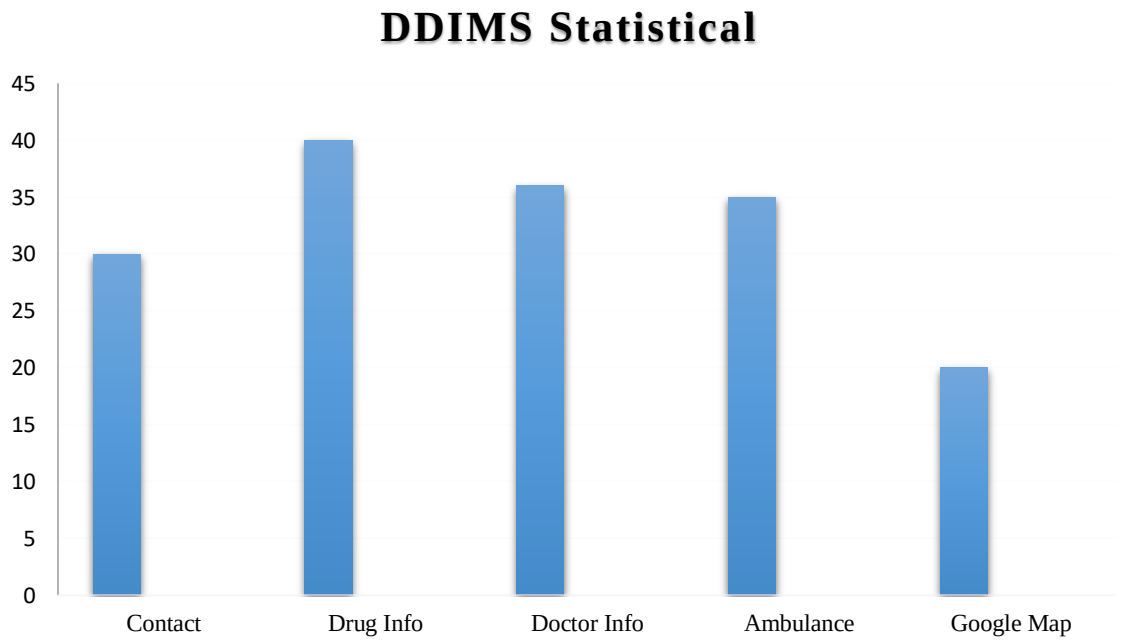


Figure 3.4.2 User Demand about Facilities

After completing our demo application, we test it on 20 user. Within all of the users 6 users were fully satisfied, 5 users were moderately satisfied, 6 are satisfied and 3 of them are not satisfied. After the demo application users also demand something new, all of them we try to complete them and something we store as our future work.

Table 3.3: Statistical User feedback

	Number of People	%
fully satisfied	6	30%
moderately satisfied	5	25%
satisfied	6	30%
dissatisfied	3	15%

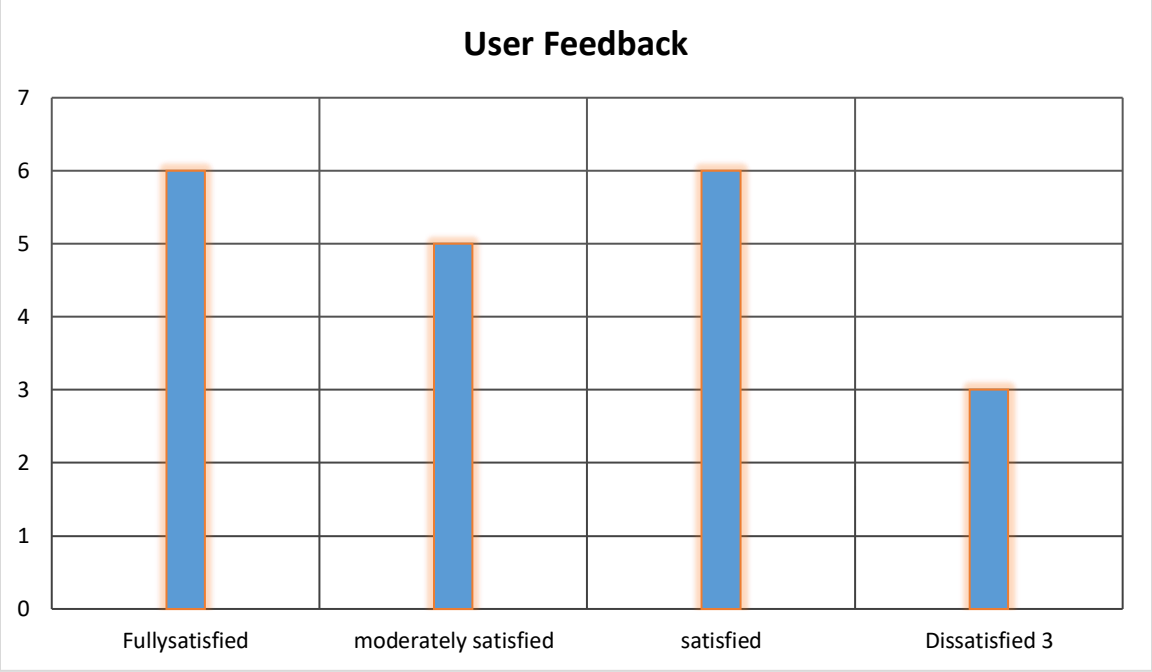


Figure 3.4.3 User feedback from demo

3.5 Design Requirements

To implement this application, we must need android studio, Java language, JDK, Adobe XD, SQLite, online server, virtual device for check. For survey procedure need MS word and printer for printing. Here we use agile model to develop our project:

As we implement our project step by step by survey, that's why we use agile model for this project.

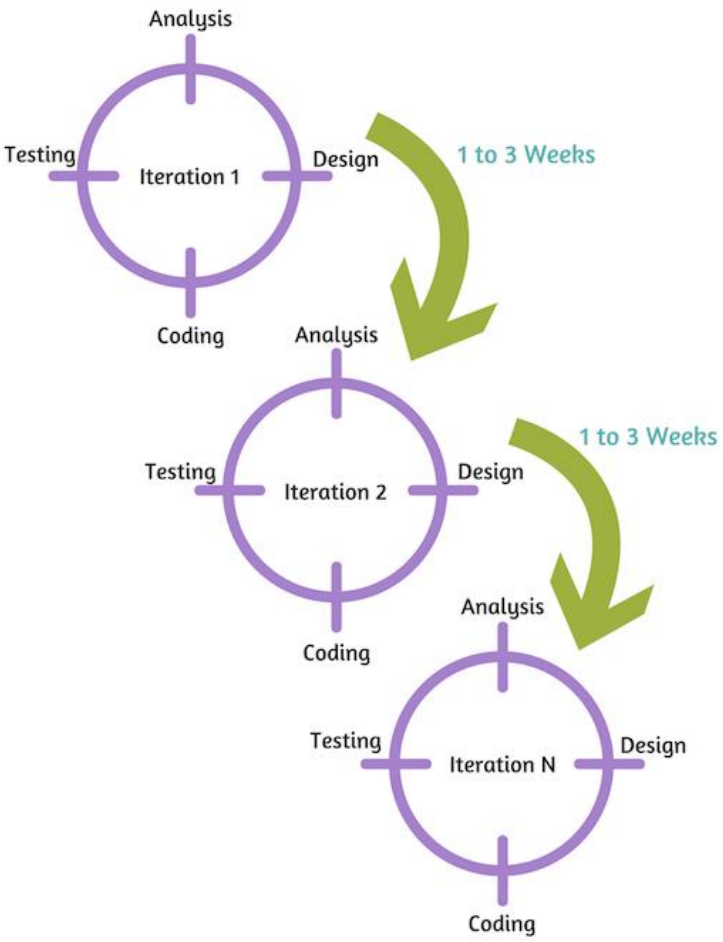


Figure 3.5.1 Agile model of DDIMS

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-end Design

The report of research is defining a result in a formal way, which gives a convenience to trying result continually.

We will discuss the results of our "DDIMS" project in this section and will discuss the relationship between Doctor, Ambulance and Medicine. After a successful survey we cut an experimental result in Chapter 3, we describe the procedure how we collected data and statistical analysis. In Chapter 4, we show the result and discuss so on.

After an effectual experiment we can trace output. Here the UI design description we find out after survey:

Screen 1: After opening the first page it will be able to see the user first (Both for Admin and User panel)

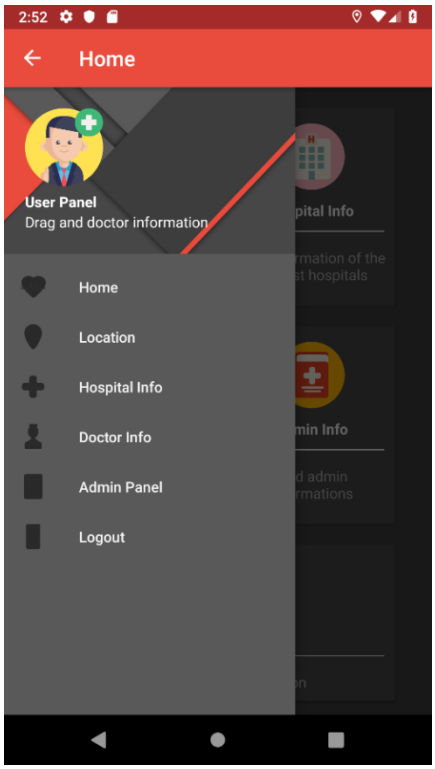


Figure 4.1.1 Frist screen of DDIMS

Screen 2: Then login will need to enter the app. If you have not registered before, you will have to register it.

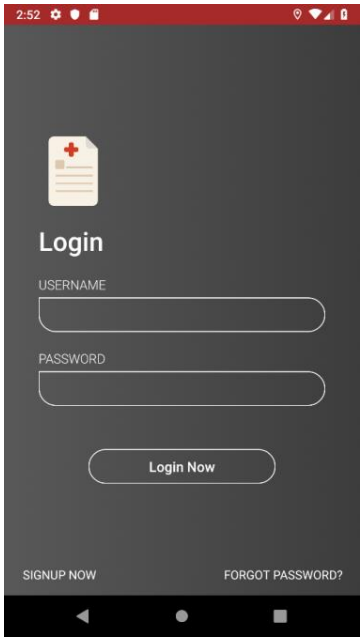


Figure 4.1.2 Login screen of DDIMS

Screen 3: To use the app, you must register

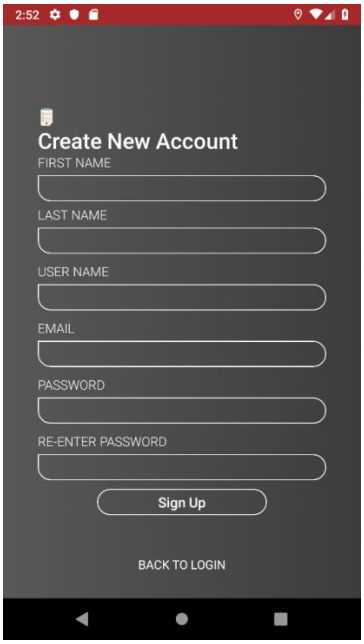


Figure 4.1.3 Register screen of DDIMS

Screen 4:

- **Location**
- **Hospital Info**
- **Doctor Info**
- **Admin Info**
- **Medicine**

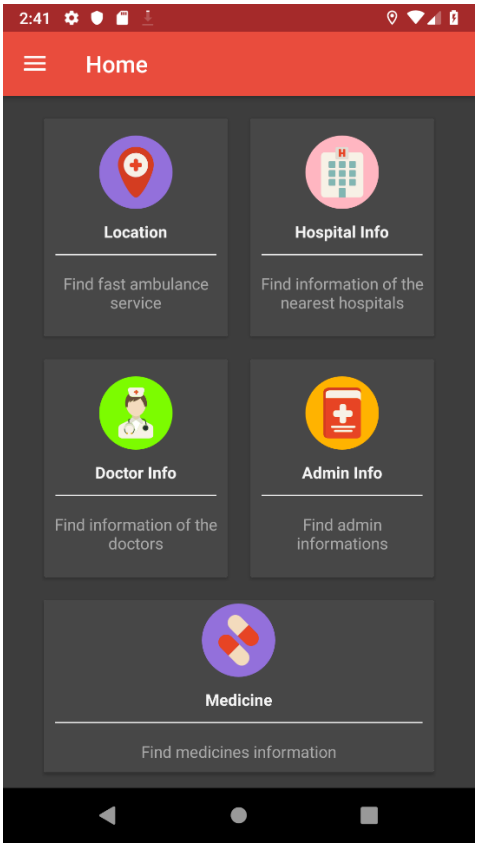


Figure 4.1.4 Different type of DDIMS Application

Screen 5: Track any location using Google Map

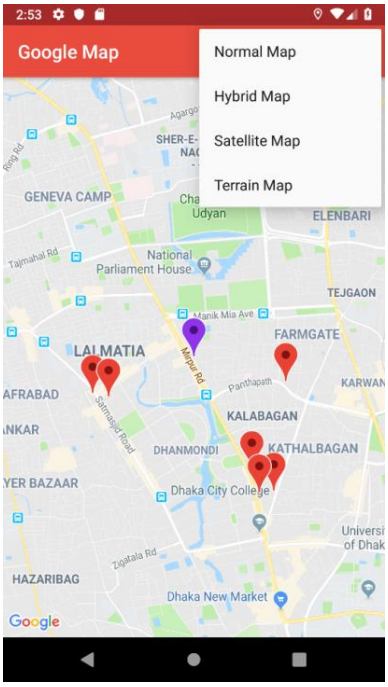


Figure 4.1.5 Different type of location Tracking

Screen 6: Information of hospital and Doctor

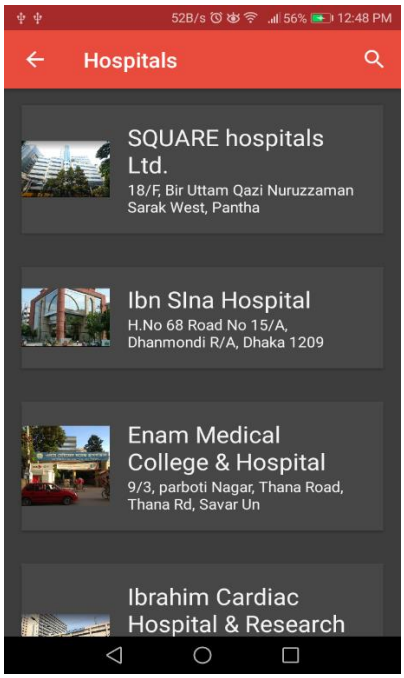


Figure 4.1.6 Doctor Information

Screen 7: Information of Admins

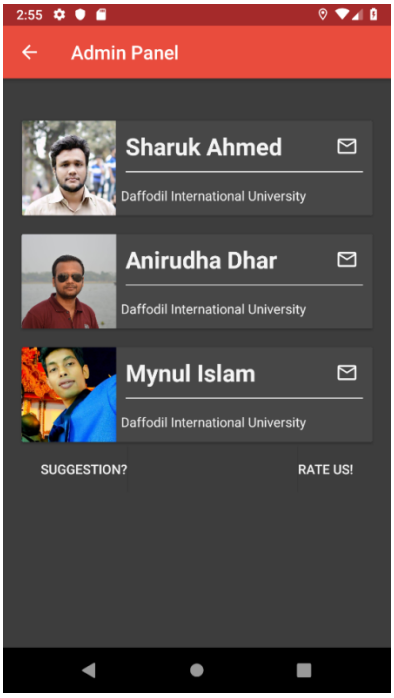


Figure 4.1.7 Admin Activity

Screen 8: Information of Doctors

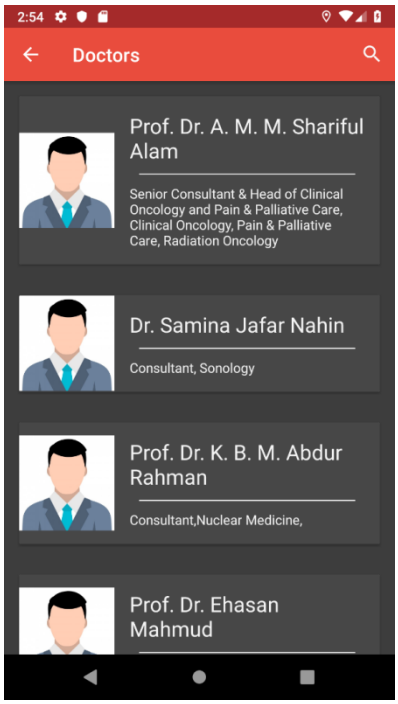


Figure 4.1.8 Doctors Info Activity

Screen 9: Doctors Activity

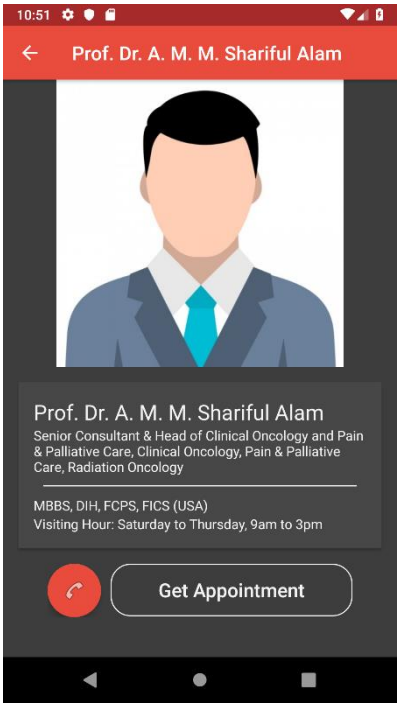


Figure 4.1.9 Doctors Activity

Screen 10: Information of Appointment Date

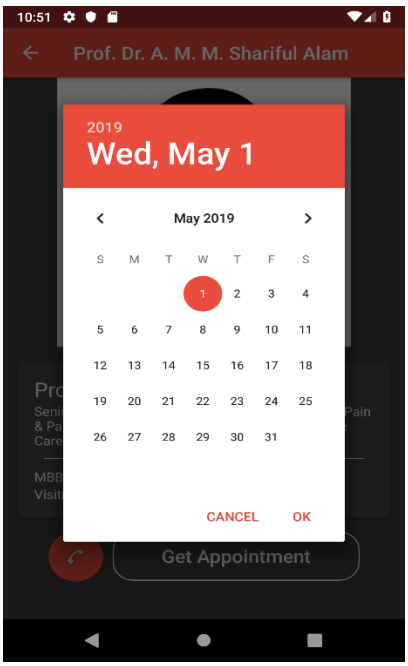


Figure 4.1.10 Date Picker Activity

Screen 11: Information of Appointment Time

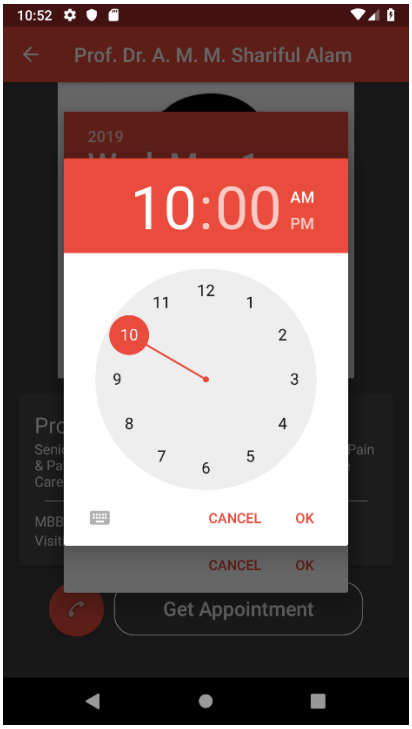


Figure 4.1.10 Time Picker Activity

Screen 12: Information of Drugs

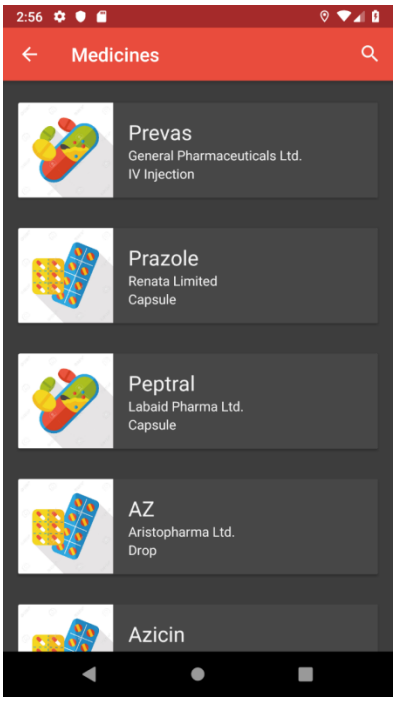


Figure 4.1.10 Drug Info Activity

Screen 13: Drug Activity

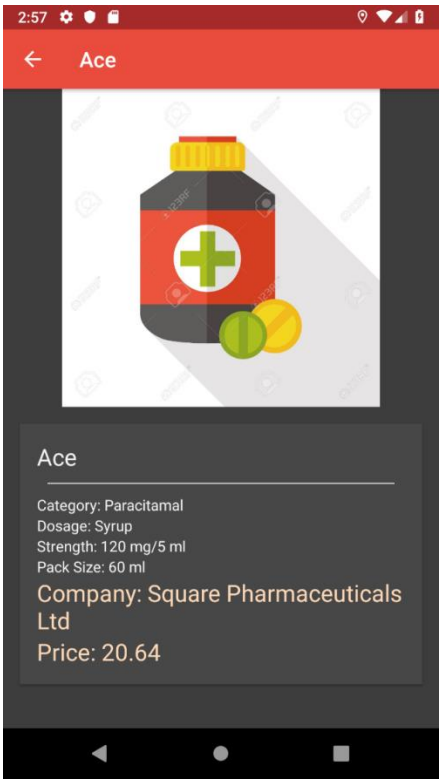


Figure 4.1.11 Drug Activity

4.2 Back-end Design

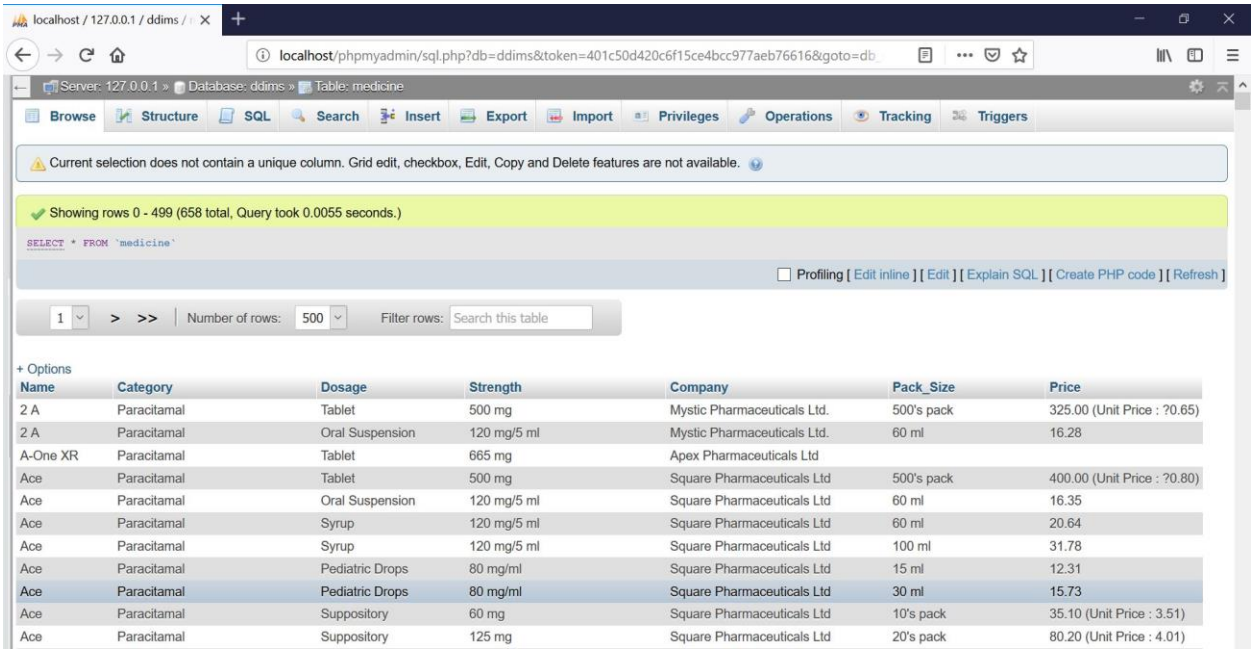
In order to gather information, we have given priority to seasons and have worked on people suffering from various diseases in different seasons and worked with data received. In this, we have seen almost 100 percent of people dependent on drugs in some way but sadly, not everyone in the country goes to the doctor. They used drugs through prior experience, and in this case they were working on the basis of the season.

Here a demo that an admin found if User is login in System.

We know back-end design means the power behind the project. The user is unable to see the back-end of a project. The logical part of a software mainly happened in back-end. It is the most valuable part of a software. Usually back-end means server-side. Normally back-end design consists of language like PHP, and PHP.net etc.

In our application we use PHP, MySQL database and XAMPP as local server to develop and maintain the back-end section. We attach our application back-end design in bellow.

Information of Drug Management System Background database:



Server: 127.0.0.1 » Database: ddims » Table: medicine

Browse | Structure | SQL | Search | Insert | Export | Import | Privileges | Operations | Tracking | Triggers

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 499 (658 total, Query took 0.0055 seconds.)

```
SELECT * FROM `medicine`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

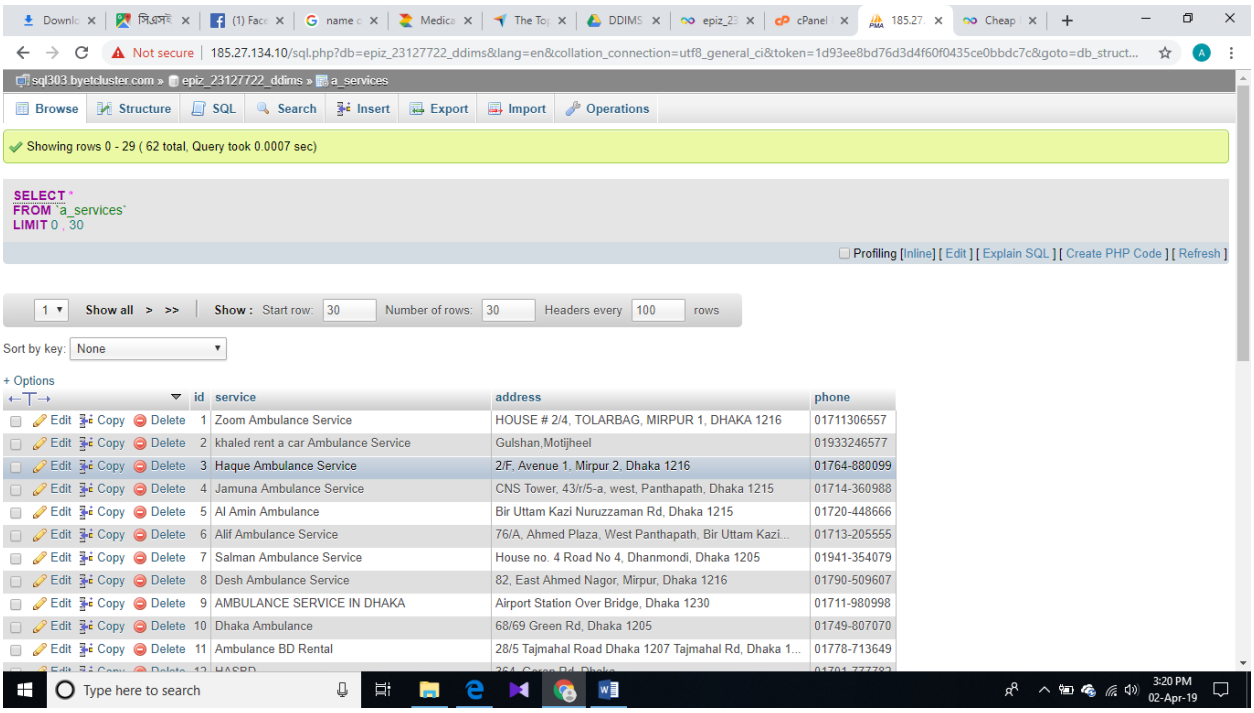
1 > >> Number of rows: 500 Filter rows: Search this table

+ Options

Name	Category	Dosage	Strength	Company	Pack_Size	Price
2 A	Paracitamal	Tablet	500 mg	Mystic Pharmaceuticals Ltd.	500's pack	325.00 (Unit Price : ?0.65)
2 A	Paracitamal	Oral Suspension	120 mg/5 ml	Mystic Pharmaceuticals Ltd.	60 ml	16.28
A-One XR	Paracitamal	Tablet	665 mg	Apex Pharmaceuticals Ltd		
Ace	Paracitamal	Tablet	500 mg	Square Pharmaceuticals Ltd	500's pack	400.00 (Unit Price : ?0.80)
Ace	Paracitamal	Oral Suspension	120 mg/5 ml	Square Pharmaceuticals Ltd	60 ml	16.35
Ace	Paracitamal	Syrup	120 mg/5 ml	Square Pharmaceuticals Ltd	60 ml	20.64
Ace	Paracitamal	Syrup	120 mg/5 ml	Square Pharmaceuticals Ltd	100 ml	31.78
Ace	Paracitamal	Pediatric Drops	80 mg/ml	Square Pharmaceuticals Ltd	15 ml	12.31
Ace	Paracitamal	Pediatric Drops	80 mg/ml	Square Pharmaceuticals Ltd	30 ml	15.73
Ace	Paracitamal	Suppository	60 mg	Square Pharmaceuticals Ltd	10's pack	35.10 (Unit Price : 3.51)
Ace	Paracitamal	Suppository	125 mg	Square Pharmaceuticals Ltd	20's pack	80.20 (Unit Price : 4.01)

Figure 4.2.1 Drug Information Database

Information of Ambulance Management System Background database:



sql303.byetcluster.com » epiz_23127722_ddims » a_services

Browse | Structure | SQL | Search | Insert | Export | Import | Operations

Showing rows 0 - 29 (62 total, Query took 0.0007 sec)

```
SELECT *
FROM `a_services`
LIMIT 0 , 30
```

Profiling [Inline] [Edit] [Explain SQL] [Create PHP Code] [Refresh]

1 Show all > >> Show : Start row: 30 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

	id	service	address	phone
Edit Copy Delete	1	Zoom Ambulance Service	HOUSE # 2/4, TOLARBAG, MIRPUR 1, DHAKA 1216	01711306557
Edit Copy Delete	2	khaled rent a car Ambulance Service	Gulshan,Motijheel	01933246577
Edit Copy Delete	3	Haque Ambulance Service	2/F, Avenue 1, Mirpur 2, Dhaka 1216	01764-880099
Edit Copy Delete	4	Jamuna Ambulance Service	CNS Tower, 43/r/5-a, west, Panthapath, Dhaka 1215	01714-360988
Edit Copy Delete	5	Al Amin Ambulance	Bir Uttam Kazi Nuruzzaman Rd, Dhaka 1215	01720-448666
Edit Copy Delete	6	Alif Ambulance Service	76/A, Ahmed Plaza, West Panthapath, Bir Uttam Kazi...	01713-205555
Edit Copy Delete	7	Salman Ambulance Service	House no. 4 Road No 4, Dhanmondi, Dhaka 1205	01941-354079
Edit Copy Delete	8	Desh Ambulance Service	82, East Ahmed Nagor, Mirpur, Dhaka 1216	01790-509607
Edit Copy Delete	9	AMBULANCE SERVICE IN DHAKA	Airport Station Over Bridge, Dhaka 1230	01711-980998
Edit Copy Delete	10	Dhaka Ambulance	68/69 Green Rd, Dhaka 1205	01749-807070
Edit Copy Delete	11	Ambulance BD Rental	28/5 Tajmahal Road Dhaka 1207 Tajmahal Rd, Dhaka 1...	01778-713649

Type here to search 3:20 PM 02-Apr-19

Figure 4.2.2 Ambulance Information Database

Information of a Hospital doctor Management System Background database:

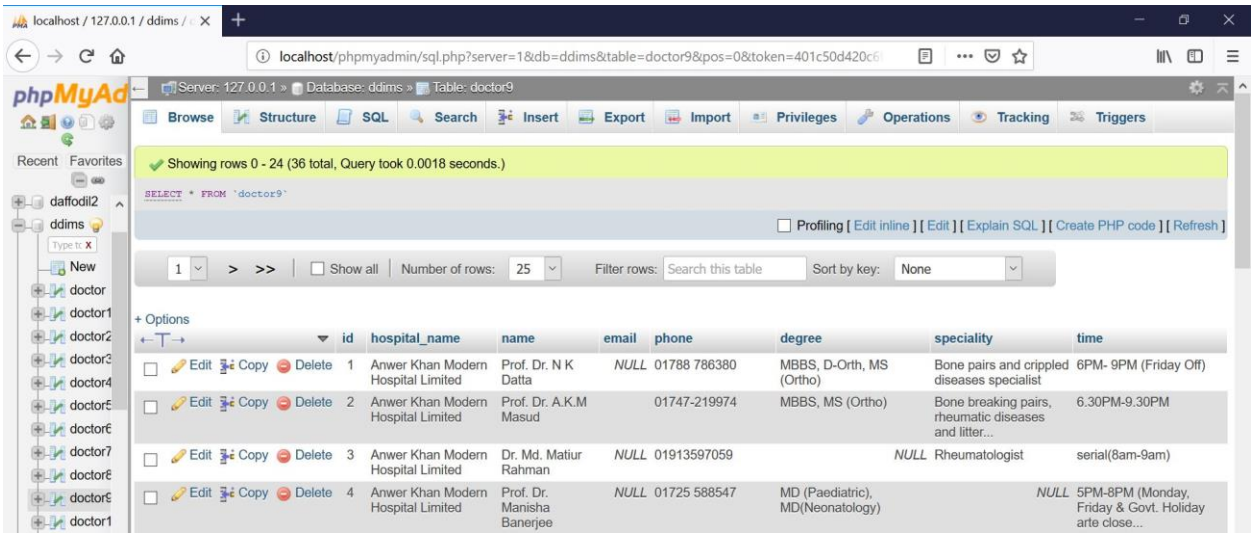


Figure 4.2.3 Hospital Doctor Information Database

4.3 Interaction Design and UX

The purpose of this research was to obtain real-life experience in real situations. For this research we collect data on two way. 1st of all we need to achieve knowledge that is available in the internet and in the databases of the various institutions and we also collected the data that we can find in the other research projects on different topics. Once we gathered all the data that can be found online, we went out for field work we went to 4 hospitals and collected the available data. Then we started collect ambulance services data. We collected 43 data from online and 19 data from field work. Our work is still going on and till now we got 10 hospitals, 62 ambulance service and more than 300 doctor information in our database.

People usually take services from the nearest ambulance center, but if they go out of the capital, then they are paying rent and their interest. For research base experimental Result, we done some several step.

Verification of user login from server

jsondata.php | login.php

```php
<?php
require "conn.php";
$user_email = "abc";
$user_pass =  "123";
//$user_email = $_POST["user_email"];
//$user_pass =  $_POST["password"];
$mysql_qry = "select * from users where useremail like '$user_email' and password like '$user_pass';'
$result = mysqli_query($conn, $mysql_qry);
if(mysqli_num_rows($result)>0){
    echo "login successful";
}
else{
    echo "login not success";
}

?>
```

Figure 4.3.1 login verification php file

Jsondata fetching from server to the app

jsondata.php | login.php

```php
<?php
require "conn.php";
$sth = mysqli_query($conn,"SELECT * from doctor;");
$rows = array();
while($r = mysqli_fetch_assoc($sth)) {
    $rows[] = $r;
}
echo '{
"contacts": ' ,json_encode($rows), '}';
?>
```

Figure 4.3.2 Data fetching using json

Step 1:

First of all, we went to people with our “DDIMS” project ideas and explained them about the idea and explained them about its benefits.

Step 2:

After, With regard to the knowledge acquired from human beings and keeping them in mind, we make an UI design.

Step 3:

When we designed our project idea and thought that people would take our project well and we started implementing our designs

Step 4:

Then again exposing UI design towards public. In behind our motive was to collect some more idea that will be helpful if we implement it for project.

Step 5:

When all of our work is finished, we took some help from people and through them we will know how effective the apps are.

4.4 Implementation Requirements

Doing Properly after all of the process we get expected experimental result with 83% accuracy of outcome. As we expected new generation and old generation both give a positive review about "DDIMS".

CHAPTER 5

IMPLEMENTATION AND TESTING

In this part we state about our conclusion, future scope, a whole summary of this research base project and what are the negative questions we have to face for this project.

5.1 Implementation of Database

Finding the research questions we went to the people to their problem. We take their interview and record that. We analysis their interview and collect data for our research and we find our research question answer. And also find the obstacles and challenge.

5.2 Implementation of Front-end Design

The idea of this paper was to find out the impact of the mobile technology on medical information. For this we went a lot of places in Dhaka. We talk to people and recorded there interview. We want to know if they get any Medical information by using mobile phone. From their interview we find out most of people use smart phone. Among them most of the people use phone on other purpose. They did not have any idea about Medicine app, Doctor App and Ambulance app. They doesn't know how they get information using internet. The people did not know about medical website and what are there. They use smartphone but they does not get any benefit from it. Although some people use internet but they say they face many problems some of them are low internet speed, call drop, internet package is not friendly because expiry date is very low. We try to find out why they face problem and flow diagram present the scenario of their condition by this paper. They doesn't get any benefit from new technology. They have lack of ICT knowledge. The mobile operators have to develop in some area.

5.3 Implementation of Iteration

Overall, several app developed on medication purpose more briefly, because understanding a topic is very important. When we tested our demo application by 20 users, they recommended us something's. They are:

- Doctor contact

- Ambulance Service

Doctor contact:

Due to emergency purpose if the user can contact with some specialist it will help the user. So, after taking permission from some specialist doctor's we will give their contact info in this application .Thus, the user can contact with them at any kind of emergency.

Ambulance Service:

Nowadays we can call car trough mobile app Uber. But in Uber, there is no facilities for emergency patient. Also, user can't get these cars 24/7.that's why user will come to us if we can add this kind of something it will be beneficial for them. So, we take it as our future work.

5.4 Testing Implementation

At first when we asked questions to 50 users, we found their demand so high. When we sort out all of them, we saw that 50 users want confirmation call, email and message, 48 want medicine libraries, 45 users demanded about Doctor's info, 47 users want Ambulance info. Based on their demand we confirm our UI for the Users and also try to make it more user-friendly.

Our application has some limitation. We will overcome this limitations in future. Some of the main limitations are-.

- Only developed for Android.
- Some features need to be included such as extensions and widgets

5.5 Test Results and Reports

After completing our demo application, we test it on 20 users. Within all of the users 6 users were fully satisfied, 5 users were moderately satisfied, 6 are satisfied and 3 of them are not satisfied. After the demo application users also demand something new, all of them we try to complete them and something we store as our future work.

CHAPTER 6

CONCLUSION AND FUTURE SCOPE

6.1 Discussion and Conclusion

Bangladesh is a developing countries. The population of this country is approximately 166 million. The study was carried out in a district viz. Dhaka District is a district in central Bangladesh and is the densest district in the nation. It is a part of the Dhaka Division. The administrative Dhaka District was first established in 1772. But, the existence of urbanized settlements in the area that is now Dhaka city – dates from the 7th century. The population of the division reached 18,305,671 people as of Census 2012 revised. Some 9,852,835 males live in the city as of the 2012 census, for a sex ratio of 119. Since the district is different from Greater Dhaka, some 3.6 million people are classified as rural. The district population grew at 4.73% annually over the decade, and is home to 2,786,183 households. The district consists of 46 upazilas/thanes, 86 unions, 974 mazes, 1999 villages, 2 City Corporations, 92 City Wards, 855 City Mahalia's, 3 paurashava, 27 wards and 133 masalas. So we want to make a connected network where everyone can cooperate with each other, doctors can easily find their patients and patients can easily use doctor's help. Precious time can be saved from both end.

6.2 Scope for Further Development

Our mission is to make this application for all platform like windows, iOS and Web.

- **Doctor contact:**
  In future, after getting permission by top list doctor we want to add their number to this application so that user can be helpful.

- **Ambulance Service:**
  This is the most useful thing we want add in this application. In future there will be options of calling nearest emergency ambulance or Uber to patient address.

- **Blood Bank:**
  Blood Bank is one of the key parts of the Hospital Management System. We will add this important part to the future and solve the problem, which we occasionally see through different post in Facebook.

- **Doctor Appointment:**
  Doctor's information is available on our current Doctor Information System but there is no appointment schedule. That means the static information must be dynamic.

- **Doctor Prescription:**
  We will keep some general prescriptions for general or primary diseases such as fever, diarrhea etc. which are made by Opponent Doctor. But it's for primary care. These are not major diseases.

- **Online Doctor:**
  Experienced doctors will be able to provide online services through video calls and suggestion for big problems.

References

[1] MedEx is the online medicine information directory in Bangladesh, Available Online<<https://medex.com.bd/>> [Accessed: 10- Aug- 2018]

[2] DIMS, IT medicine is an android app based on medicines, Available Online <<https://play.google.com/store/apps/details?id=com.twgbd.dims&hl=en>> [Accessed: 09- Feb- 2019]

[3] Drug Dictionary 2017 – Drug Information, International Educational Apps, Available Online<<https://play.google.com/store/apps/details?id=id.antbeedev.id.antbeedev.Drug.Dictionary.Drug.nformation.Offline&hl=en>> [Accessed: 26- Jan- 2019]

[4] Shopnobaz Directory, Available Online <<http://directory.shopnobaz.com/ambulance-service-in-dhaka-telephone-number/>> [Accessed: 01- Jan- 2019]

[5] Ibn sina hospital, Available Online <<https://findoutadoctor.blogspot.com/2016/10/ibn-sina-hospital-dhanmondi-location.html>> [Accessed: 17- Dec- 2018]

Appendices

Appendix A: Project Reflection

Working on a project for this long time period we have got to learn a lot. In the process we had to go through all a lot of difficulties and through that process we learned a lot that we think will help us in the long run. The working experience was not always the same. At first it was hard but after some time we became more comfortable. The Proper guidance of our supervisor should be mentioned here; he pushed us through the whole time and helped us in every possible way. Now we would like to summarize our experience of the implementation of the total project.

- First of all we actually had more than one idea in our minds but then we carefully choose the idea that we thought would have greater impact or more useful for the users.
- Then we took the idea to our supervisor and explained our future vision for this app and he agreed to our proposal and also pointed out some flaws to correct.
- Then we started our project work immediately and that's why we got enough time to pull this off perfectly.
- We tried to make the project user friendly.
- We tested the app on 25 people and tried to take their valuable feedbacks and worked on them to make the app more user friendly as possible. We added the feedback system so that we can improve our app in future basing on the feedback from users.

Appendix B: Related Diagrams

- Collecting and inputting the data.
- Implementing the raw ideas into the project.
- Visualization of the final view of the project.
- Informing people about the app that contain a lot of great features in single place.

DDIMS_Final

ORIGINALITY REPORT

6%	5%	0%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	biglistofwebsites.com Internet Source	2%
2	www.discoverworld.com Internet Source	1%
3	en.wikipedia.org Internet Source	1%
4	www.greenholidaysbd.com Internet Source	1%
5	www.studymode.com Internet Source	1%
6	David M. Dickerson, Ramana K. Naidu. "Preparing for the Physician Payment Sunshine Act", Regional Anesthesia and Pain Medicine, 2014 Publication	<1%
7	Ze-Yuan Wang, Qing Li, Zhi-Chao Cao, Wei-Hua Li, Jun Li, Rui-Yang Du. "A Model-Based Deployment Framework of Integrated Public Cloud Service", 2012 International Conference	<1%

on Computer Science and Service System, 2012
Publication

8	younglives-india.org Internet Source	<1%

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	Off		