HEALTH CARE
ONLINE DOCTOR APPOINTMENT BOOKING
(Android application)

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A Project Submitted in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science & Engineering

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DECLARATION

I, here by, declare that the work presented in this project is the outcome of the investigation performed by us under the supervision of Nazia Hossain, Senior Lecturer, Department of Computer Science & Engineering, Stamford University Bangladesh. We also declare that no part of this project and thereof has been or is being submitted else where for the award of any graduation.

Countersigned

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Nazia Hossain

Supervisor

Signature

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Tomal Biswas

Candidate

ABSTRACT

Health Care is basically an android application which has been used to book an online appointment. This application based on online doctor appointment booking system. This application is user friendly simple, fast and cost-effective and save time. This application has many features where the main features is book online doctor appointment. Other feature is hospital information, address and contact information etc. It will provide the power of direct interaction between doctors and users. This application is user or patient oriented based, in which only the user or patient can get an online appointment. To use this android application patient or user has to register for getting appointment. User who choose premium package select date and time. This android application based on doctors of BT Hospital .The doctors are being added by the admin. The admin can add or delete doctors in application. This application can save time and money to get a doctor appointment. Overall this project of mine is being developed to help the users or patients as well as the staff of hospital to maintain appointment schedule in better way and reduce the human efforts

ACKNOWLEDGEMENTS

First of all I would like to thank the almighty GOD. Today I am successful in completing my work with such ease because He gave me the ability, chance, and cooperating supervisor.

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Chapter 1
Introduction

1.1 Introduction

Health care is a free tool which allows you to book a doctor appointment from android Device In just a few clicks, user or patient can book their online doctor Appointment .Healthcare is a project which aims in developing system to maintain doctor appointment in hospital. This project has many features which are generally available in manual system hospital.

1.2 What is HealthCare?

Healthcare is android application which is run on android operating system device. Healthcare application is to manage doctor appointments.it is necessary for the hospital to keep track of its activities and records of its patients and doctors that keep the hospital running smoothly and successfully but keeping track all those activities and their records on paper is difficult and error prone. It also is very inefficient and time-consuming process observing the continuous increase in population and number of the people visiting the doctor in hospital. Recording and maintaining all those records is highly unreliable, inefficient, error prone and not economically Health care application is a good solution for all those problem.[1]

1.3 Background of Project

Health care project is aimed to develop online doctor appointment booking system. Using healthcare users are being able to book appointment automatically. But to do that every user needs to register which will help them to book their doctor appointment, if the user select premium or premium plus they choose date and time. This application has the facility to give a unique id for every patient and stores the details of every patient. User can choose a doctor by selecting doctor type and doctor name. Anyone can book an appointment by entered name and other details. The data can be retrieved easily. The interface is very user-friendly. [1]
The data are well protected the personal use and the data processing very fast. Healthcare is designed for hospital. The user can book as many appointment as he want .in there only admin can do add or delete or edit .In one word the application is user friendly and hopes everyone will like it.This application site provided most significant way to book a doctor appointment easily and this system is based on BT Hospital.[2][3]

1.4 Objective of Project

The project “Healthcare” is aim to develop to maintain the doctor appointment

The following main objective of the Healthcare:

- To computerize all regarding patient details.
- Keeping patient care as utmost priority
- Scheduling the appointment of patient with doctor and emergency property so that facilities provided by hospital utilized in effective and efficient manner.

- The information of the patients should be kept up to date and their record should be kept the system for hospital purpose.

1.5 Scope of Project

Hospital currently use a manual system for the management and maintenance of critical information. Few of them are:

- This application is design to facilitate administration, doctor and patient.
- All of the information must be managed in an efficient and cost wise.
- Information typically involves patient name, phone number, age, sex ,doctor type and doctor name

1.6 Overview of Document

In chapter 1 I talk about the basic things of my project report. What is Healthcare, scope of this project, objective of this project, objective of this document etc. I also give an overall preview of document in this chapter

In chapter 2 I describe how we analysis the system model, which model we follow to do this project. According to the software development life cycle I follow the waterfall model for complete my project. For chapter 3 this document describe the requirement gathering procedure and its constraints. Methodological explanation of the project battered near peripheral viewers. The section includes information such as data requirements and functional requirements.

The system design parts design by unified model language, I fully document this part to understand easily for the user and it is describe in chapter 4. In chapter 5 I discuss and give some table structures and screenshots of my application for the form design that helps user to use this application easily.

Maintenance procedure of this project has been described in chapter 6,I discuss about the activities and problem phases of maintenance. Finally at the end in chapter 7 I give the conclusion of this document and talk about limitation and future plans what we will implement in future I hope so.

Chapter 2
Software Development Life Cycle

2.1 Software Development Life Cycle

The systems development life cycle (SDLC), also referred to as the application development life-cycle, is a term used in systems engineering, information systems and software engineering to describe a process for planning, creating, testing, and deploying an information system. The systems development life-cycle concept applies to a range of hardware and software configurations, as a system can be composed of hardware only, software only, or a combination of both.[4].

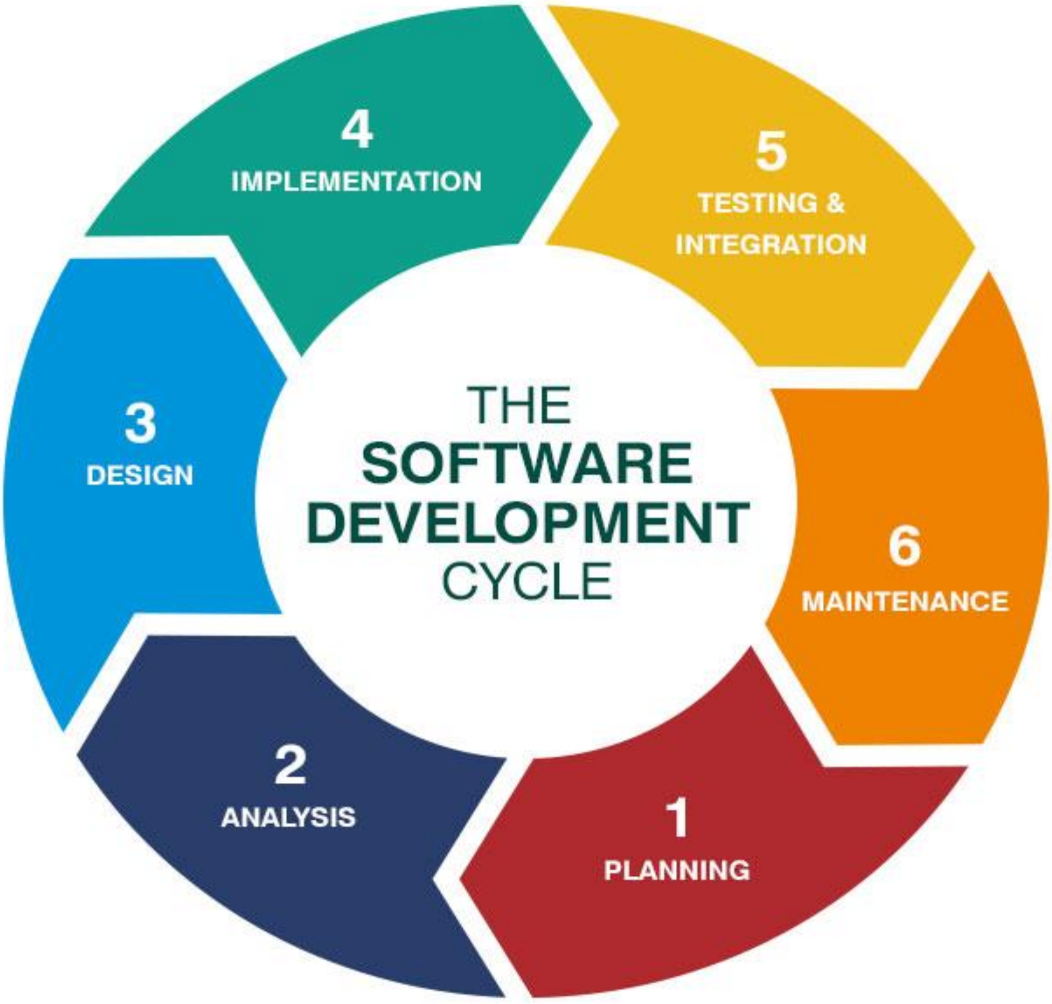

Figure 2.1 SDLC Cycle

2.2 SDLC Models

The software development models are the various processes or methodologies that are being selected for the development of the project depending on the project's aims and goals. There are many development life cycle models that have been developed in order to achieve different required objectives. The models specify the various stages of the process and the order in which they are carried out.[4]

The selection of model has very high impact on the testing that is carried out. It will define the what, where and when of our planned testing, influence regression testing and largely determines which test techniques to use.

There are various Software development models or methodologies. They are as follows:

1. Waterfall model
2. V model
3. Incremental model
4. RAD model
5. Agile model
6. Iterative model
7. Spiral model
8. Prototype model

Choosing right model for developing of the software product or application is very important. Based on the model the development and testing processes are carried out.

2.3 Scrutinizing the Project Model

Selecting accurate model for developing of the software invention or request is very significant. Founded on the model the expansion and testing processes are accepted out. As Waterfall Model is more traditional and easy to gather requirements and analyzing system, so we choose the model according to complete the project. This technique works well for big projects that may take numerous months to progress.

2.3.1 Waterfall Model

The waterfall model is a successive design procedure, used is software advance process, in which development is seen as graceful steadily upwards through the stages of beginning, opening, design, building, testing, implementation and maintenance [5]. It is also referred to as a linear-successive life cycle model, it is very humble to recognize and custom, In a waterfall model, each stage must be completed fully before the next stage can begin. This type of model is essential charity for the plan which is small and there are no inexact necessities, At the end of each stage, a review takes place to control if the plan is on the right path and whether or not it endure or abandon the project, In this model the testing starts only after the development is comprehensive. In waterfall model do not edge [6].

2.3.2 Waterfall Model Design

Waterfall method was major SDLC model to used usually in Software Engineering to confirm success of the project, In “The waterfall” methodology, the entire route of software development acts as the input for the next segment successively. Ensuing is an consequence of a phase acts as the input for the next segment successively [7]. Ensuing an illustrative representation of dissimilar periods of waterfall model:

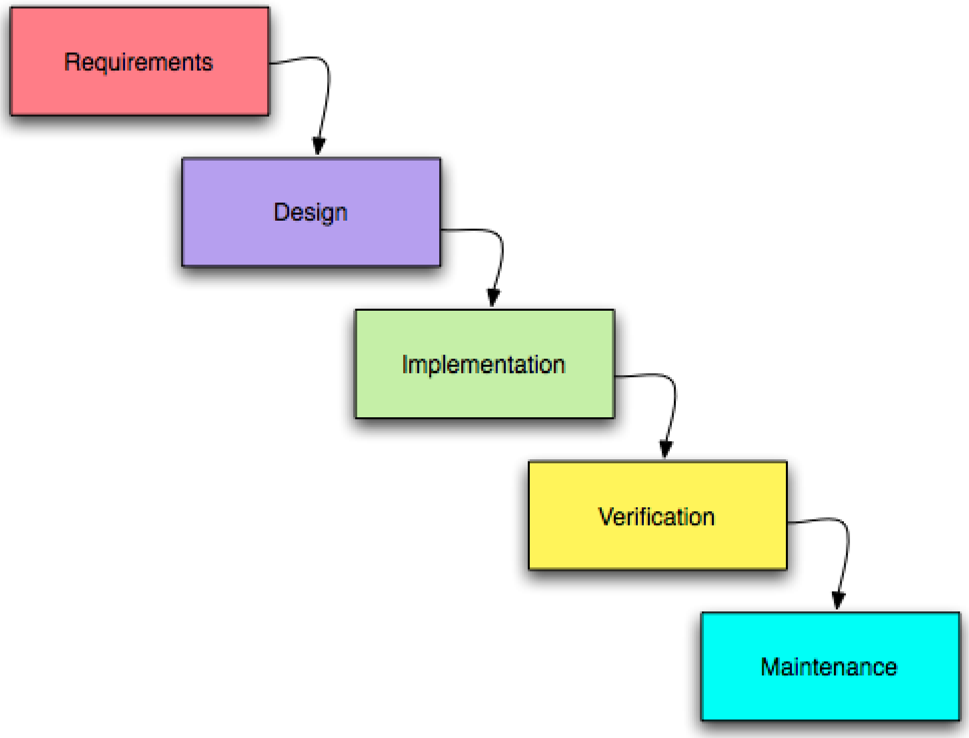

Figure 2.2 waterfall model.

2.3.3 Waterfall Model Phases

This segment is acute to the successfully complete project, hopes need to be fleshed out in inordinate part and familiar. This an iterative procedure with much statement taking place between investors, end customers and the project side. The following techniques can be used to gather supplies [8];

1. **Requirement gathering and analysis:** Business supplies are assembled in this stage. This segment is the main attention of the project manager and stake holders. Meetings like; that is going to habit the scheme? How will they use the scheme? What statistics should be input into the scheme? What facts should be output by the organization? These general question can get answer through the requirement gathering time

2. **Design:** In this segment the scheme and software plan is prepared from the obligation stipulation which were deliberate in the major phase. System Design helps in stipulating hardware and system requirement and also helps in crucial overall system architecture. The system conditions serve as input for the following stage of the perfect. In this phase the tester comes up with the test strategy, where they reference what to trial, how to trial.

3. **Implementation:** On receiving system design documents, the work is alienated in units and actual coding is started. Since, in this stage the code is formed so it is the main attention for the developer. coding is the longest period of the software development life cycle.

4. **Testing:** After implementation developed it is tested through the necessities to make sure that the product is truly answering the request addressed and gathered during the necessities phase. Through this period all sorts of functional testing like unit testing integration testing , system testing ,acceptance testing are done as well as non-functional testing are complete

5. **Deployment:** After effective testing the product is organized to the customer for their use, as soon as the product is assumed to the patrons they will first di the beta testing, if any changes are required or if any bugs are caught then they will crash it to the engineering team, once those variations are made or the bugs are fixed then the final placement will happen

6. **Maintenance:** Once when the clients starts using the advanced system the actual glitches comes up and needs to be answered from time to time. This procedure where the care is taken for the advanced artefact is known as maintenance.

2.4 Waterfall Model Advantages and Disadvantages

2.4.1 Advantages of Waterfall Model:

- This model is simple and easy to understand and use.
- In this model periods are treated and finished one at time. The stages of this model never intersection
- It is easy to achieve owing to the inflexibility of the model- each phase has specific Deliverables and an assessment procedure.
- Waterfall model works well for minor projects where necessities are very well understood [8].

2.4.2 Disadvantages of Waterfall Model:

- Once a request is in the testing stage, it is very difficult to go back and change something that was not well-thought out in the idea stage
- Working software cannot not be produced pending late through the life cycle.
- High quantities of risk and doubt.
- Poor model for long and ongoing projects.
- Not appropriate for the projects where necessities are at a reasonable to high risk altering [8]

Chapter 3
System Tools Definition

3.1 System Tools:

In this project we have used the following tools for our system requirement.

Hardware:

Laptop

- Core i3
- Hard Disk 1TD
- RAM 4GB

Software:

1. Android studio 2.2
2. Xampp Server.
3. java development kit

3.2. Android

Android is a mobile operating system developed by Google, based on the Linux kernel and designed primarily mobile devices such as smartphones and tablets. Android's user interface is mainly based on direct manipulation, using touch gestures that loosely correspond to real-world actions, such as swiping, tapping and pinching, to manipulate on-screen objects, along with a virtual keyboard for text input. In addition to touchscreen devices, Google has further developed Android TV for televisions, Android Auto for cars, and Android Wear for wrist watches, each with a specialized user interface. Variants of Android are also used on not0ebooks, game consoles, digital cameras, and other electronics.

This operating system is based on version 2.6 of Linux, so it has a monolithic system kernel, what means that all system functions and drivers are grouped into one block of code.

Android consists of five layers:

-The Linux kernel 2.6-which includes useful drivers that allows for example WiFi or Bluetooth.

-The library written in C and C + + that provide higher level functionality such as an HTML engine, or a database (SQLite).

-A runtime environment for applications based on a virtual machine, made for inefficient machines such as telephones. The aim is to translate JAVA in machine language understood by Android.

-A JAVA framework that allows applications running on the virtual machine to organize and cooperate [9].

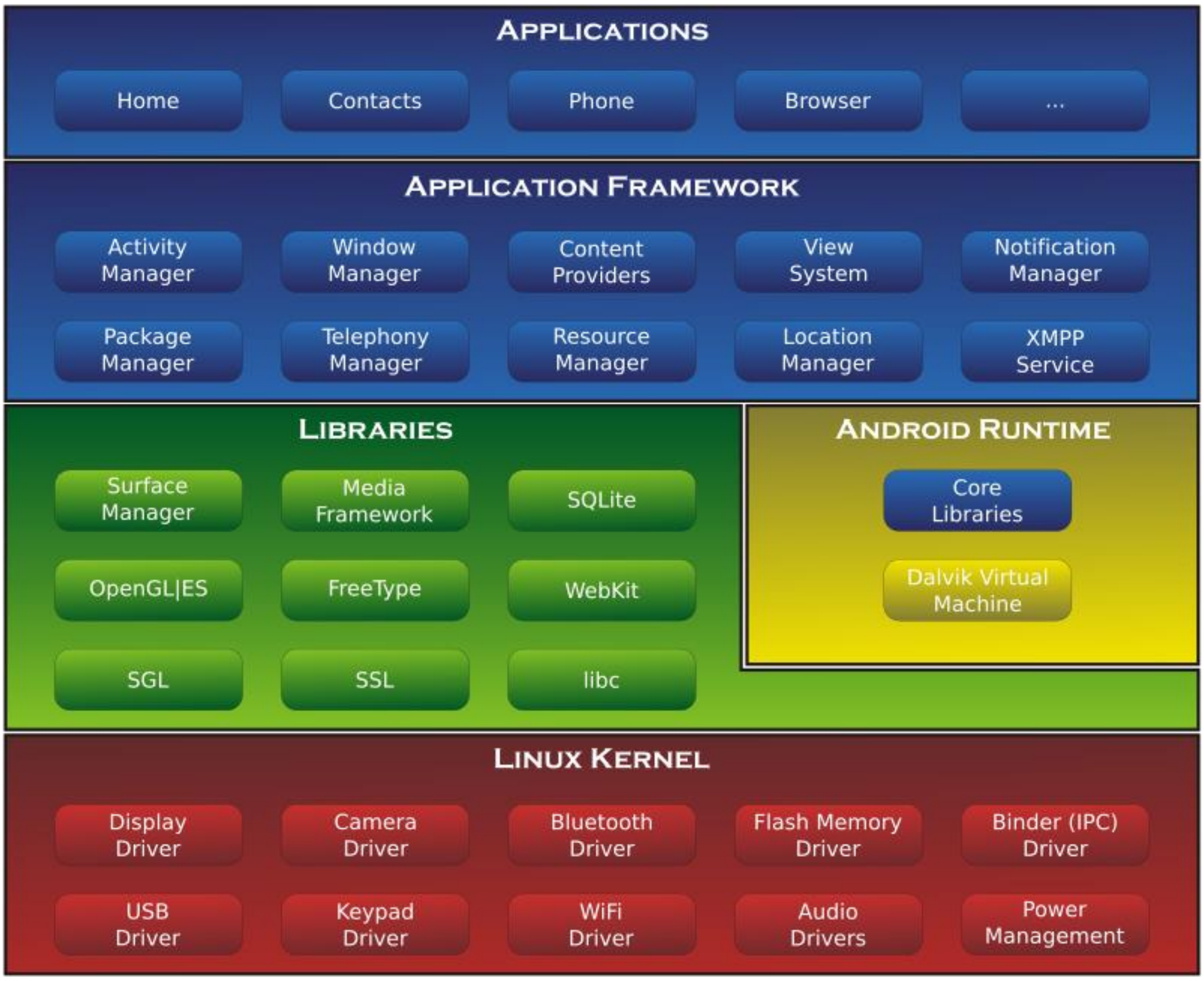

Figure 3.2 Android-System-Architecture

3.3 History of Android

Initially developed by Android, Inc., which Google bought in 2005,[Android was unveiled in 2007 along with the founding of the Open Handset Alliance – a consortium of hardware, software, and telecommunication companies devoted to advancingopen standards for mobile devices. As of July 2013, the Google Play store has had over one million Android applications ("apps") published – including many "business-class apps" that rival competing mobile platforms – and over 50 billion applications downloaded. An April–May 2013 survey of mobile application developers found that 71% of developers create applications for Android, and a 2015 survey found that 40% of full-time professional developers see Android as their priority target platform, which is comparable to Apples iOS on 37% with both platforms far above others. In September 2015, Android had 1.4 billion monthly active devices.

Android's source code is released by Google under open source licenses, although most Android devices ultimately ship with a combination of open source and proprietary software, including proprietary software required for accessing Google services. Android is popular with technology companies that require a ready-made, low-cost and customizable operating system for high-tech devices. Its open nature has encouraged a large community of developers and enthusiasts to use the open-source code as a foundation for community-driven projects, which deliver updates to older devices, add new features for advanced users or bring Android to devices originally shipped with other operating systems.

Android has seen numerous updates which have incrementally improved the operating system, adding new features and fixing bugs in previous releases. Each major release is named in alphabetical order after a dessert or sugary treat; for example, version 1.5 "Cupcake" was followed by 1.6 "Donut". In 2010, Google launched its Nexus series of devices – a line of smartphones and tablets running the Android operating system, and built by manufacturing partners. HTC collaborated with Google to release the first Nexus smartphone, the Nexus One. Google has since updated the series with newer devices, such as the Nexus 5 phone (made by LG) and the Nexus 7 tablet (made by Asus). Google releases the Nexus phones and tablets to act as their flagship Android devices, demonstrating Android's latest software and hardware features. From 2013 until 2015, Google offered several Google Play Edition devices over Google Play. While not carrying the Google Nexus branding, these were Google-customized Android phones and tablets that also ran the latest version of Android, free from manufacturer or carrier modifications.

From 2010 to 2013, Hugo Barra served as product spokesperson, representing Android at press conferences and Google I/O, Google's annual developer-focused conference. Barra's product involvement included the entire Android ecosystem of software and hardware, including Honeycomb, Ice Cream Sandwich, Jelly Bean and KitKat operating system launches, the Nexus 4 and Nexus 5 smartphones, the Nexus 7 and Nexus 10 tablets and other related products such as Google Now and Google Voice Search Google's speech recognition product comparable to Apple's Siri In 2013, Barra left the Android team for Chinese smartphone maker Xiaomi The same year, Larry Page announced in a blog post that Andy Rubin had moved from the Android division to take on new projects at Google. He was replaced by Sundar Pichai who became the new head of Android and Chrome OS and, later, by Hiroshi Lockheimer when Pichai became CEO of Google.

In 2014, Google launched Android One, a line of smartphones mainly targeting customers in the developing world. In May 2015, Google announced Project Brillo as a cut-down version of Android that uses its lower levels (excluding the user interface), intended for the "Internet of Things" embedded systems.

University of Cambridge research in 2015, concluded that almost 90% of Android phones in use had known but unpatched security vulnerabilities due to lack of updates and support. In a year since (mid-2015) that report, well over a billion Android smartphones have been sold (more than the just over billion sold in 2014); and Android 5.0 (with better security) and later, went from 5.4% market share to currently over half, which means that the 90% number must be very outdated; those phones now very likely represent less than half of all Android phones. Recent devices do get security updates Android 5.0 introduced an improved centralized update system.

3.4 Android Applications

Applications ("apps"), which extend the functionality of devices, are written using the Android software development kit (SDK) and, often, the Java programming language that has complete access to the Android APIs. Java may be combined with C /C++, together with a choice of non-default runtimes that allow better C++ support; the Go programming language is also supported since its version 1.4, which can also be used exclusively although with a restricted set of Android APIs. The SDK includes a comprehensive set of development tools, including a debugger, software libraries, a handset emulator based on QEMU, documentation, sample code, and tutorials. Initially, Google's supported integrated development environment (IDE) was Eclipse using the Android Development Tools (ADT) plugin; in December 2014, Google released Android Studio, based on IntelliJ IDEA, as its primary IDE for Android application development. Other development tools are available, including a native development kit (NDK) for applications or extensions in C or C++, Google App Inventor, a visual environment for novice programmers, and various cross platform mobile web applications frameworks. In January 2014, Google unveiled an framework based on Apache Cordova for porting Chrome HTML 5 web applications to Android, wrapped in a native application shell.

Android has a growing selection of third-party applications, which can be acquired by users by downloading and installing the application's APK (Android application package) file, or by downloading them using an application store program that allows users to install, update, and remove applications from their devices. Google Play Store is the primary application store installed on Android devices that comply with Google's compatibility requirements and license the Google Mobile Services software. Google Play Store allows users to browse, download and update applications published by Google and third-party developers; as of July 2013, there are more than one million applications available for Android in Play Store .As of July 2013, 50 billion applications have been installed. Some carriers offer direct carrier billing for Google Play application purchases, where the cost of the application is added to the user's monthly bill.

Due to the open nature of Android, a number of third-party application marketplaces also exist for Android, either to provide a substitute for devices that are not allowed to ship with Google Play Store, provide applications that cannot be offered on Google Play Store due to policy violations, or for other reasons.

3.5 Other platform Application

3.5.1 Windows mobile Application

This type of application based on windows mobile operating system and based on windows CE (WinCE). WinCE is compact OS specifically designed for pervasive devices .it is focused on providing a consistent interface for application on various hardware platforms which emphasizes portability by providing the user with win32 api. Software development for windows mobile application is done using visual C++ making use of Microsoft’s NET

framework. The SDK is setup to work using visual studio as the integrated Development Environment
Windows application was designed for flexibility and the developer in mind. For that reason it was designed to support lots of pre-emptive multitasking. It supports a whopping 256 priority levels for threads and up to 32 processes. It is ideal for smart phone because the users typically demand multitasking and want to be productive as possible [9]

3.5.2 Symbian mobile Application

The Symbian application was specifically for mobile devices.it has very small memory footprint and low power consumption.it is an open operating system. Most of the code is in C++.very little code exists in C or assembly.it is optimized, heavily asynchronous, pre-emptive, multitasking.it has Symbian application engines (20%), Symbian system layer (55%),kernel (5%) and UL design (20%)[10]

3.5.3 Apple (ISO) mobile Application

This type of application based on Swift or Objective-C (with some elements optionally in C or C++). ISO application was designed for flexibility and the developer in mind. The application is utilized in apple only hardware products including the iPhone and iPad. ISO has been a rapid rise in popularity and garnered a large and dedicated user base. It has seamless utilization of the multi-touch. It not an open source and most of them are paid .it does come with some limitation.[11]

3.6 Difference Between Android Application and Other Application

Overtime, though we realised that perhaps an android that is modern with a lot more flexibility in terms of a structured coding pattern with scope for applications that we deliver to perform better is required. In a nutshell, this is the reason behind the switchover to android

• Applications
 - **Google applications**
Android includes most of the time many Google applications like Gmail, YouTube or Maps. These applications are delivered with the machine most of the time, except in certain cases, such as some phones running android on which the provider has replaced Google applications by its own applications.
-widgets
With android, it is possible to use widgets which are small tools that can most often get information. These widgets are directly visible on the main window.
-Android Market

This is an online software store to buy applications. Developers who created applications can add them into the store, and these applications can be downloaded by users, they can be both free and paid.

• Multitasking

Android allows multitasking in the sense that multiple applications can run simultaneously. With Task Manager it is possible view all running tasks and to switch from one to another easily.

• SDK

A development kit has been put at disposal of everybody. Accordingly, any developer can create their own applications, or change the android platform. This kit contains a set of libraries, powerful tools for debugging and development, a phone emulator, thorough documentation, FAQs and tutorials.

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• Modifiability:

This allows everyone to use, improve or transform the functions of Android for example transform the interface in function of uses, to transform the platform in a real system embedded Linux.

3.7 Why Android is user Friendly Application?

Android is a free and Open Source. It is designed for the development of different application according to the client requirements. It represents a simple, speed so that you can express yourself in coding very well and become creative every time with more ideas. The unique thing about the android is that it is very expressive and beautiful coding platform and that’s why i am very sure about that you will get the good experience when you will do coding with this platform.

As we all quite aware about the Android is a very demanding in the market today. In android you can get multiple options on it. And I just like to add that android is the platform where you must love to do coding as it is provide a better web environment to us. Now its new updated version is also released frequently so it gives the healthy competition to other technologies also. As per my knowledge conferences was already held in different location to make sense that people will aware about new technology and at least you stay with this industry for a longtime.

It is built by professional developers for the people like you who is very passionate about coding and want to grow with the technology with great sense of understanding on it.

Android is for those developers who is very much interested to do a powerful coding in their own way. The only reason to create this user friendly application by developers to provide you a better platform as they can. You can also compare the features of application with others so you can get more idea about why you have to use an android. I hope that you all will keep doing quality work on the user friendly like android application and give the best work as you can using advance technology for your precious client

3.8 Functional and Non-functional Requirements

The administrator module is to monitoring the whole system .they kept the patients and doctor information. This application only allow user with basic information. The application performs authorization process

A non-functional requirement is a requirement that stipulates standards that can be used to judge the process of a system. Fairly than exact performance. They compared with functional requirement that describe exact performance or function. They strategy for applying functional requirement is detailed in the system design [11]

Chapter 4
System Design (UML)

4.1 Use Case

In software and systems engineering, a use case is a list of actions or event steps, typically defining the interactions between a role (known in the Unified Modeling Language as an *actor*) and a system, to achieve a goal. The actor can be a human or other external system. In systems engineering, use cases are used at a higher level than within software engineering, often representing missions or stakeholder goals. The detailed requirements may then be captured in the Systems Modeling Language (Sys ML) or as contractual statements.

Use case analysis is an important and valuable requirement analysis technique that has been widely used in modern software engineering since its formal introduction by Ivar Jacobson in 1992. Use case driven development is a key characteristic of many process models and frameworks such as ICONIX, the Unified Process (UP), the IBM Rational Unified Process (RUP), and the Oracle Unified Method (OUM). With its inherent iterative, incremental and evolutionary nature, use case also fits well for agile development [12].

Figure: 4.1 Use Case

4.1.1 Elements of a Use Case Diagram

A use case diagram captures the business processes carried out in the system. Normally, domain experts and business analysts should be involved in writing use cases. Use cases are created when the requirements of a system need to be captured. A use case diagram is quite simple in nature and depicts two types of elements: one representing the business roles and the other representing the business processes. Let us take a closer look at use at what elements constitute a use case diagram.[12][13]

- **Use cases**. A use case describes a sequence of actions that provide something of measurable value to an actor and is drawn as a horizontal ellipse.
- **Actors**. An actor is a person, organization, or external system that plays a role in one or more interactions with your system. Actors are drawn as stick figures.[13]
- **Associations**. Associations between actors and use cases are indicated in use case diagrams by solid lines. An association exists whenever an actor is involved with an interaction described by a use case. Associations are modeled as lines connecting use cases and actors to one another, with an optional arrowhead on one end of the line. The arrowhead is often used to indicating the direction of the initial invocation of the relationship or to indicate the primary actor within the use case. The arrowheads are typically confused with data flow and as a result I avoid their use.
- **System boundary boxes (optional)**. You can draw a rectangle around the use cases, called the system boundary box, to indicates the scope of your system. Anything within the box represents functionality that is in scope and anything outside the box is not.

System boundary boxes are rarely used, although on occasion I have used them to identify which use cases will be delivered in each major release of a system.

- **Packages (optional)**. Packages are UML constructs that enable you to organize model elements (such as use cases) into groups. Packages are depicted as file folders and can be used on any of the UML diagrams, including both use case diagrams and class diagrams. I use packages only when my diagrams become unwieldy, which generally implies they cannot be printed on a single page, to organize a large diagram into smaller ones.[14]

4.1.2 Use Case Diagram for Admin

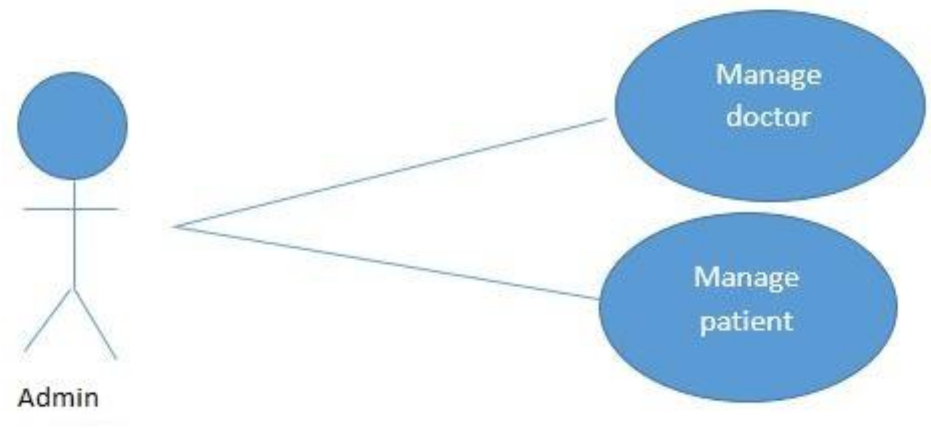


Figure: 4.1.2 Use Case Diagram for Admin

4.1.3 Use Case Diagram for Patient

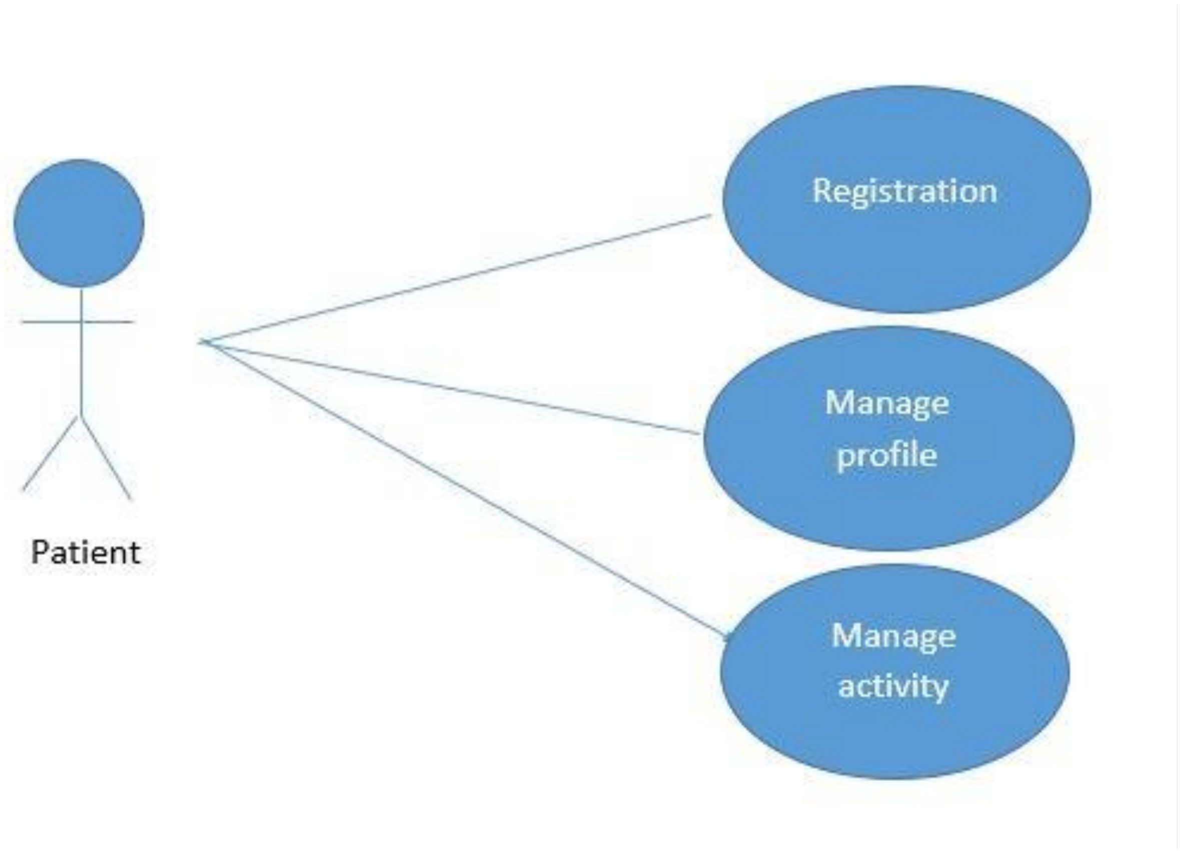


Figure: 4.1.3 Use Case Diagram for Patient

4.1.4 Use Case Diagram for Doctor

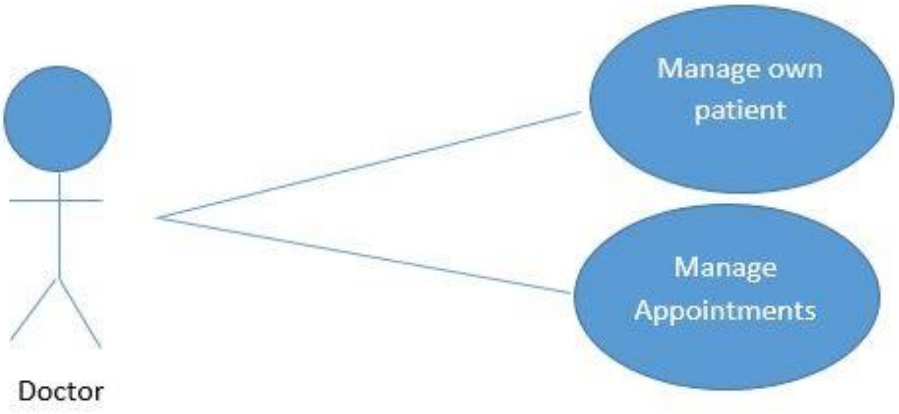
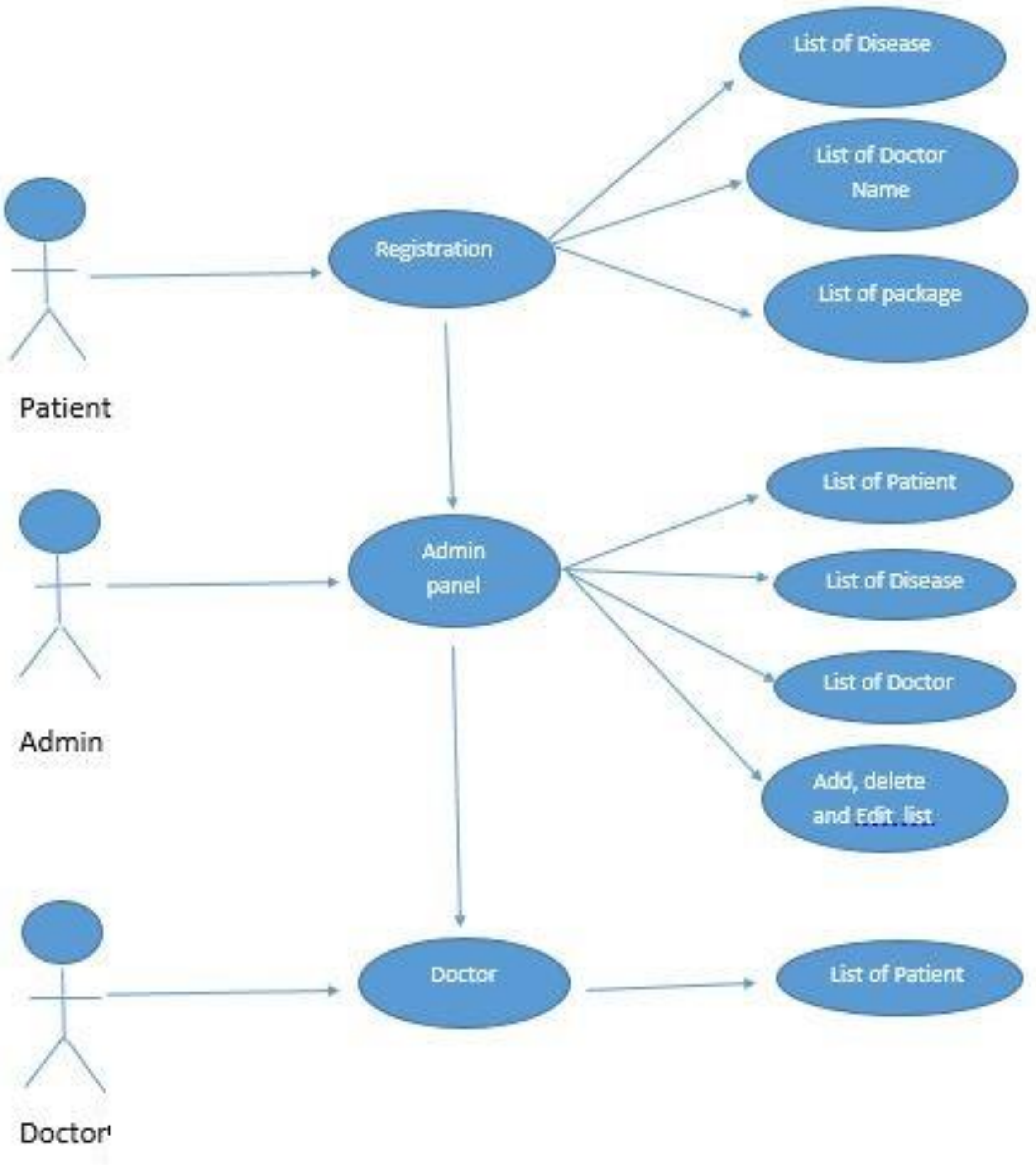


Figure: 4.1.4 Use Case Diagram for Doctor

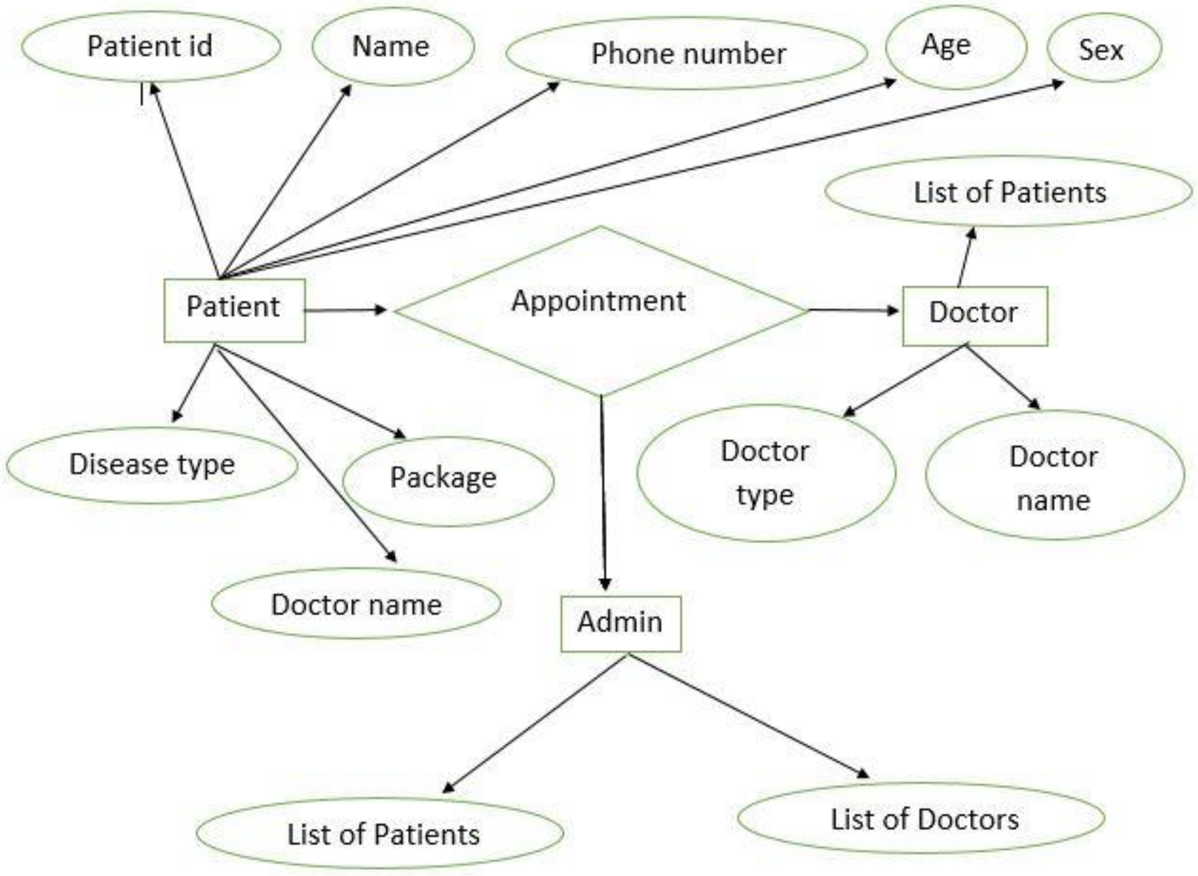
4.2 Use Case Diagram for Health Care



Figures: 4.2 Use Case Diagram for Health Care

4.3 ER Diagram for Health Care

An entity-relationship diagram (ERD) is a graphical representation of an information system that shows the relationship between people, objects, places, concepts or events within that system. An ERD is a data modeling technique that can help define business processes and can be used as the foundation for a relational database. [16]
While useful for organizing data that can be represented by a relational structure, an entity-relationship diagram can't sufficiently represent semi-structured or unstructured data, and an ERD is unlikely to be helpful on its own in integrating data into a pre-existing information system.[17]



Figures: 4.3 Entity-Relationship Diagram for Health Care

Chapter 5
Software Overview

5.1 Home page

A home page is generally the main page where a user see, and may also serve as a landing page to attract the attention of visitors., sometimes called the start page, although the home page of an application can be used as a start page.

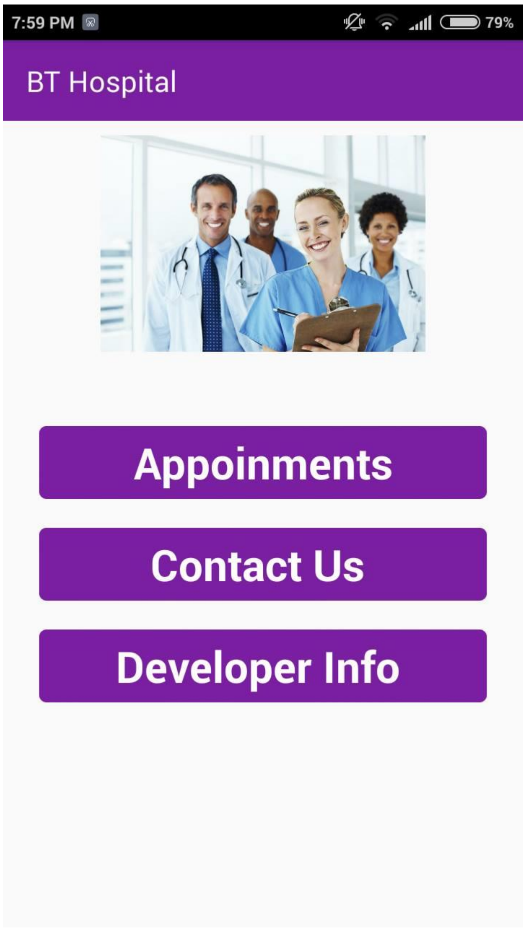
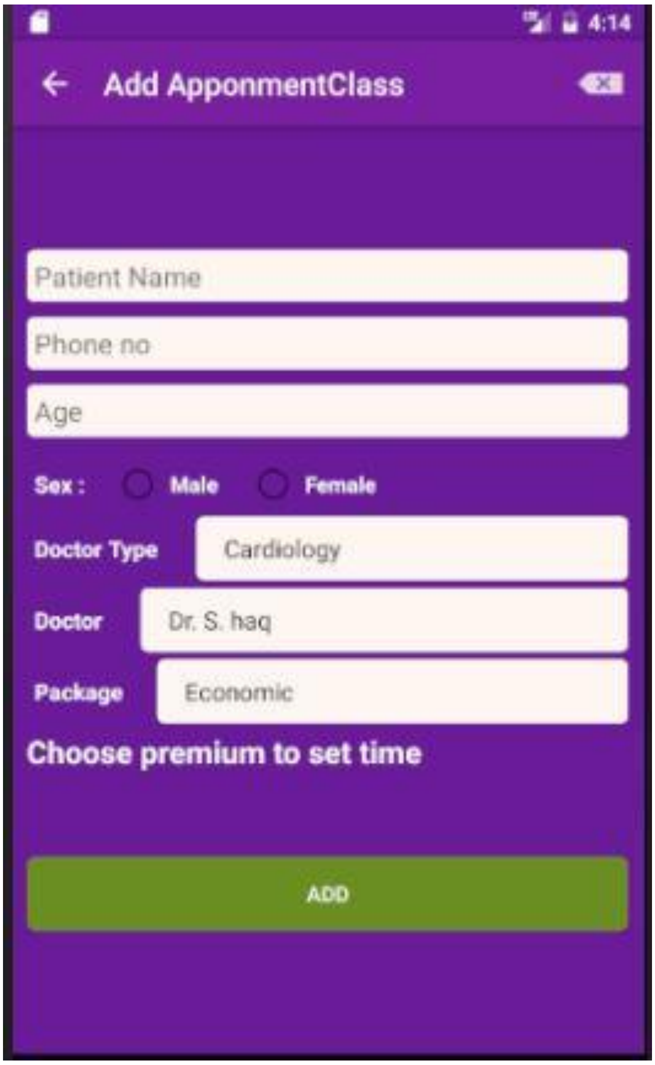


Figure: 5.1 Home Page

5.2 Registration system:

A registration system contains some fields such as Name, phone number, Age, sex, doctor type, doctor name, Package. Where i need to provide users details. So as usual i have also created a registration system which is required to become a member of this application. Every user should fill all the fields given in registration page. Just click “Add” and complete the process. The fields of our registration system given below:



4:14

Add ApponmentClass

Patient Name

Phone no

Age

Sex : ○ Male ○ Female

Doctor Type: Cardiology

Doctor: Dr. S. haq

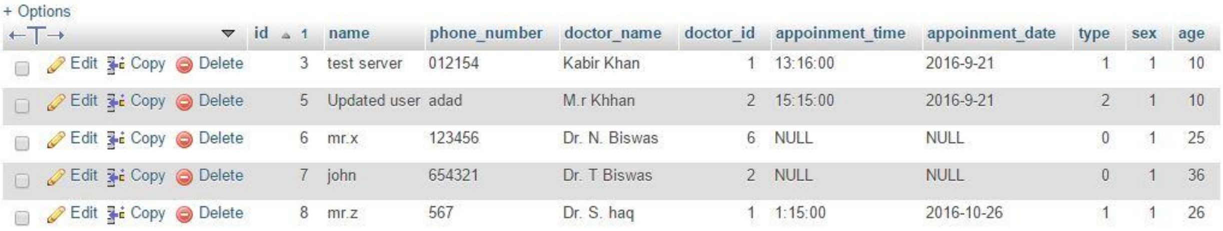
Package: Economic

Choose premium to set time

Figure 5.2 Registration Form

5.3 List of users:

Every registered user also can see the list of registered users name and serial number



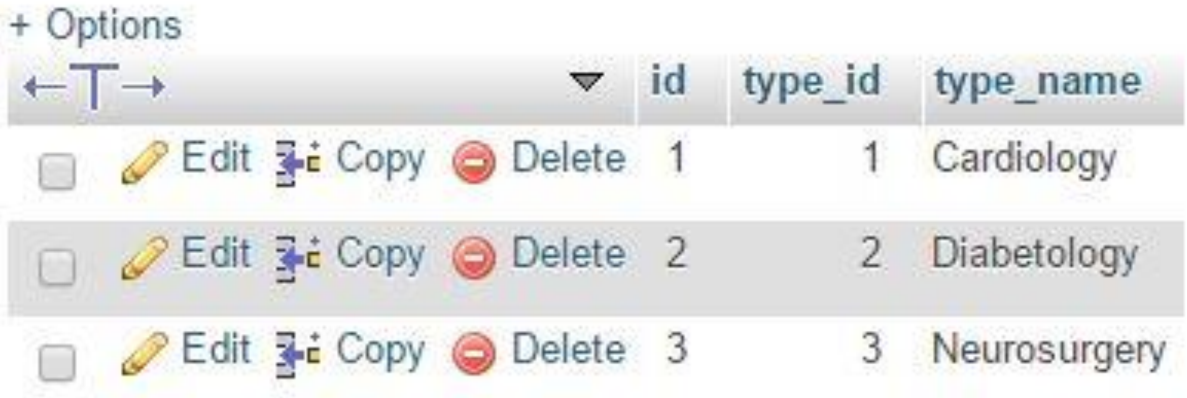
+ Options

	id	name	phone_number	doctor_name	doctor_id	appoinment_time	appoinment_date	type	sex	age
□ Edit Copy Delete	3	test server	012154	Kabir Khan	1	13:16:00	2016-9-21	1	1	10
□ Edit Copy Delete	5	Updated user	adad	M.r Khhan	2	15:15:00	2016-9-21	2	1	10
□ Edit Copy Delete	6	mr.x	123456	Dr. N. Biswas	6	NULL	NULL	0	1	25
□ Edit Copy Delete	7	john	654321	Dr. T Biswas	2	NULL	NULL	0	1	36
□ Edit Copy Delete	8	mr.z	567	Dr. S. haq	1	1:15:00	2016-10-26	1	1	26

Figure: 5.3 List of user

5.4 List of Doctor type:

Every registered user also can see the list of doctor type etc. User can select doctor type by Title, Code.



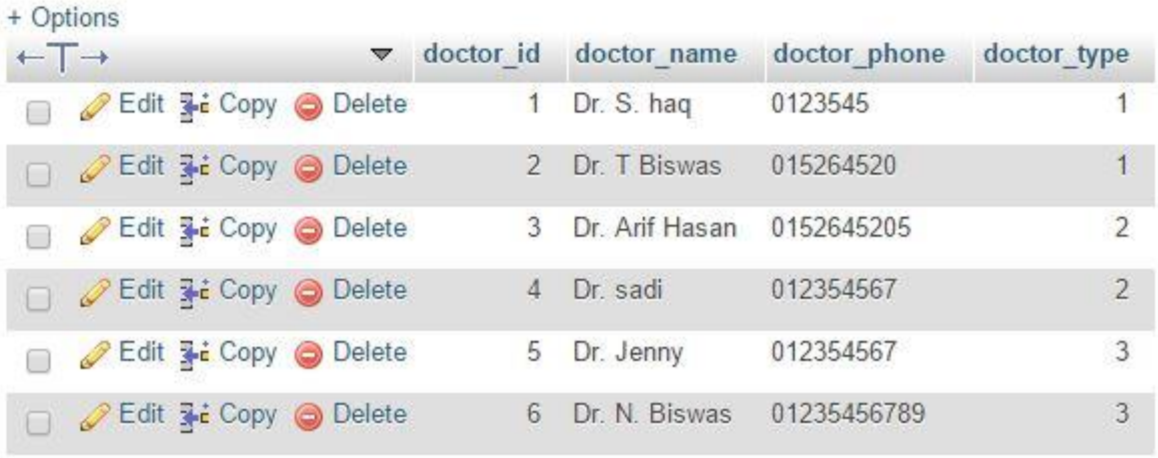
+ Options

←T→		id	type_id	type_name
☐	Edit Copy Delete	1	1	Cardiology
☐	Edit Copy Delete	2	2	Diabetology
☐	Edit Copy Delete	3	3	Neurosurgery

Figure: 5.4 List of doctor type

5.5 List of Doctor Name:

Every registered user also can see the list of doctor name etc. User can select doctor type by Title, Code.



+ Options

←T→		doctor_id	doctor_name	doctor_phone	doctor_type
☐	Edit Copy Delete	1	Dr. S. haq	0123545	1
☐	Edit Copy Delete	2	Dr. T Biswas	015264520	1
☐	Edit Copy Delete	3	Dr. Arif Hasan	0152645205	2
☐	Edit Copy Delete	4	Dr. sadi	012354567	2
☐	Edit Copy Delete	5	Dr. Jenny	012354567	3
☐	Edit Copy Delete	6	Dr. N. Biswas	01235456789	3

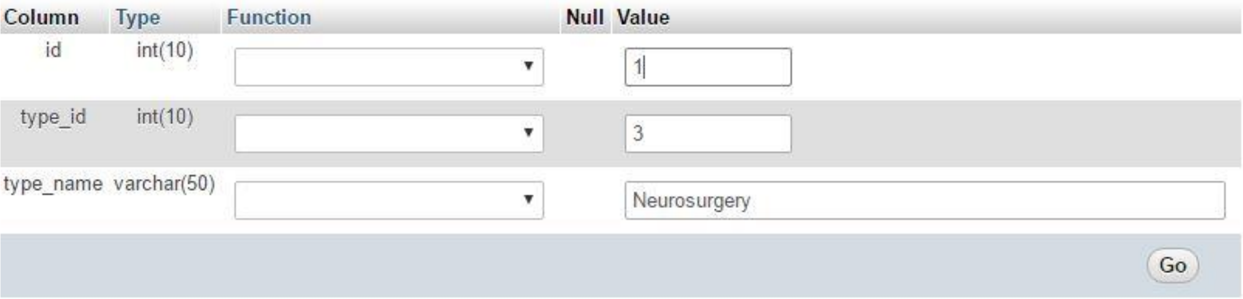
Figure: 5.5 List of doctor name

5.6 Functions of Admin:

The details of the functions of the admin are given below:

5.6.1 Add doctor type:

Admin can add doctor type

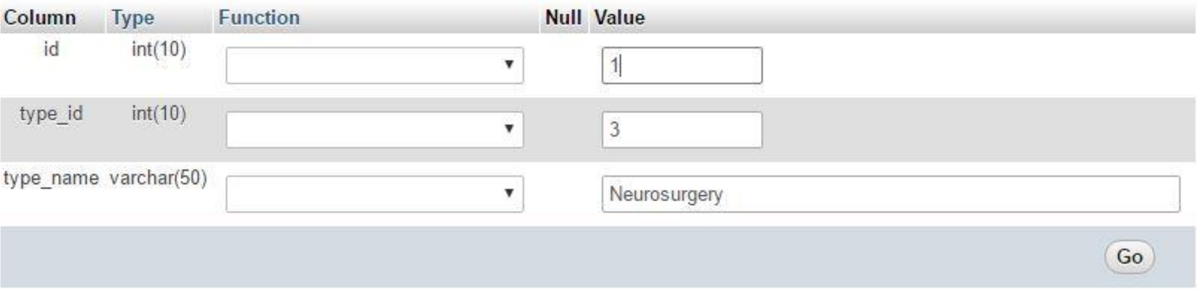


Column	Type	Function	Null	Value
id	int(10)	▾		1
type_id	int(10)	▾		3
type_name	varchar(50)	▾		Neurosurgery

Figure: 5.6.1 Add Doctor type

5.6.2 Add doctor type:

Every registered user can add another user but admin should approve this request before login of another user.

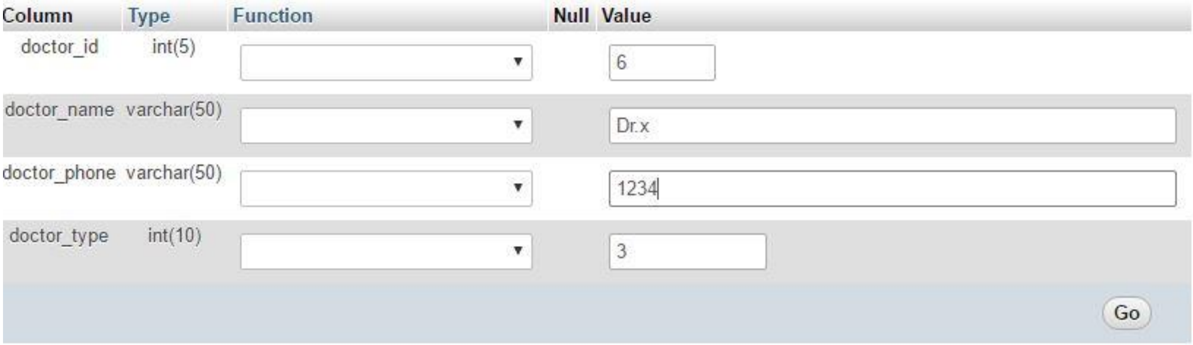


Column	Type	Function	Null	Value
id	int(10)	▾		1
type_id	int(10)	▾		3
type_name	varchar(50)	▾		Neurosurgery

Figure: 5.6.2 Add doctor type

5.6.3 Add doctor name:

Admin can add doctor name.

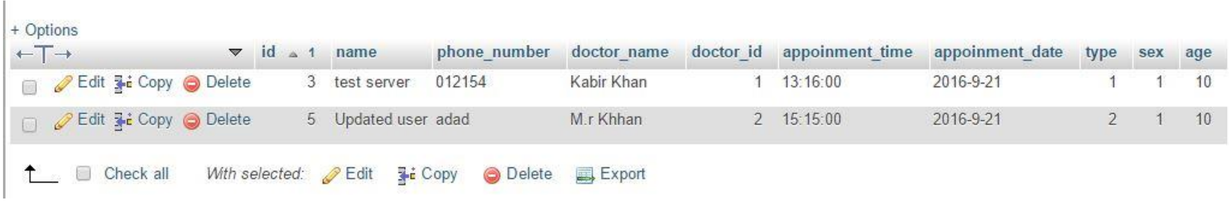


Column	Type	Function	Null	Value
doctor_id	int(5)	▾		6
doctor_name	varchar(50)	▾		Dr.x
doctor_phone	varchar(50)	▾		1234
doctor_type	int(10)	▾		3

Figure: 5.6.3 Add doctor name

5.6.4 List of users:

Admin can see the list of registered users and their details. Admin also able to edit, delete user



	id ▲ 1	name	phone_number	doctor_name	doctor_id	appoinment_time	appoinment_date	type	sex	age
□ Edit Copy Delete	3	test server	012154	Kabir Khan	1	13:16:00	2016-9-21	1	1	10
□ Edit Copy Delete	5	Updated user	adad	M.r Khhan	2	15:15:00	2016-9-21	2	1	10

Figure: 5.6.4 List of Users

Chapter 6
MAINTENANCE

6.1 Software Maintenance

Software maintenance in software engineering is the modification of a software product after delivery to correct faults, to improve performance or other attributes. A public awareness of maintenance is that includes setting defects. However, a study specified that more than 80% of maintenance is used for non-corrective movements [18]. This insight is continued by user acquiescing problem reports that in certainty are functionality enrichment to the system [19].

The maintenance process model described in IEEE, the standard for software maintenance, starts the software maintenance effort during the post-delivery stage and discusses items such as planning for maintenance and measures outside the process model[20] . That process model with the IEEE maintenance phases in figure

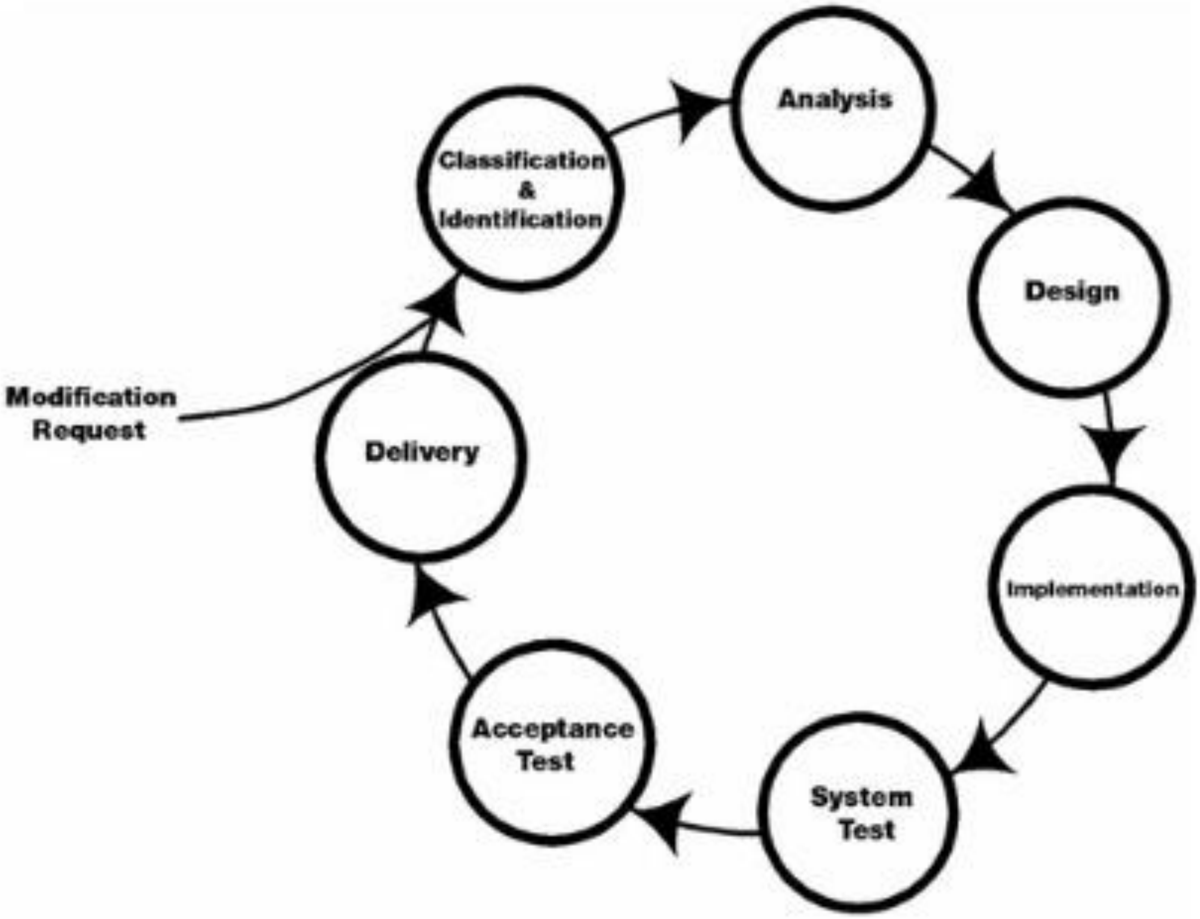


Figure:6.1 Maintenance process model

6.2 Maintenance Activities

In the late 1970s,a renowned and extensively cited review study by Litentz and swanson showing the actual great portion of life-cycle cost that were being used on maintenance. They considered maintenance activities into four classes [18]

- Adaptive Maintenance
- Corrective Maintenance
- Perfective Maintenance
- Preventive Maintenance.

Adaptive Maintenance is practical when alteration in the outside situation precipitate changes to software. It contracts with adjusting the software to new surroundings.
Corrective Maintenance doings to precise mistakes that are exposed after the software is in practice. It contracts with fitting bugs in the code

Perfective maintenance includes enrichments that are wished by the use. It contracts with fitting bugs in the codes.
Preventive Maintenance advances upcoming maintainability and dependability and delivers a foundation for future enrichment.it contracts with informing certification and constructing the software more maintainable.

6.2 Difficulties of Maintenance

There are four difficulties that can sluggish down the maintenance process

- Formless code
- Maintenance programmers having inadequate knowledge
- Documentation being inattentive
- Out of date or inadequate.

The achievement of the maintenance stage trusts on these problem being earlier in the life sequence. In mu application I try to follow the maintenance phases to complete those activities. The code is structured and we have adequate knowledge programming

Chapter 7
Conclusion and Future Plan

7.1 Conclusion And Future Plan

It is a great improvement over manual system.in the current system appointment booking is very slow but this system has speed up process. This application takes care of all the requirements of appointment.it is capable to provide easy and effective storage of information related to patient that come up to hospital for doctor appointment
For upcoming improvement, there some proposals to advance my project abilities.The limitations are

- There no mobile text confirmation system.
- Dose not upload notice timely
- There no online bill payment system.

7.1.1 Future Plan

- Will add more features to improve this application
- There will be email and mobile verification system
- Text alert for patient
- Will add online payment system

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