

**DESIGN AND DEVELOPMENT OF AN ANDROID APPLICATION
MAA O SHISHU**

BY

**Md. Hannan Talukder
ID: 142-15-3715**

AND

**Md. Sadhan Sarker
ID: 142-15-4001**

AND

**Umme Habiba
ID: 142-15-3677**

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

Supervised By

Shah Md Tanvir Siddiquee
Senior Lecturer
Department of CSE, FSIT
Daffodil International University

Co-Supervised By

Mr. Anup Majumder
Lecturer
Department of CSE, FSIT
Daffodil International University



**DAFFODIL INTERNATIONAL UNIVERSITY
DHAKA, BANGLADESH
May 2018**

APPROVAL

This Project titled “**MAA O SHISHI**”, submitted by Md. Hannan Talukder, ID No: 142-15-3715, Md. Sadhan Sarker, ID No: 142-15-4001, and Umme Habiba, ID No: 142-15-3677 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 7 May 2018.

BOARD OF EXAMINERS

Dr. Syed Akhter Hossain

Professor and Head

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Chairman

Dr. Sheak Rashed Haider Noori

Associate Professor and Associate Head

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner

Md. Zahid Hasan

Assistant Professor

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner

Dr. Mohammad Shorif Uddin

Professor

Department of Computer Science and Engineering
Jahangirnagar University

External Examiner

ACKNOWLEDGEMENT

First we express our heartiest thanks and gratefulness to almighty Allah for His divine blessing makes us possible to complete this project successfully.

We feel grateful to and wish our profound our indebtedness to **Shah Md Tanvir Siddiquee**, Senior Lecturer, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of android application influenced us to carry out this project. Her 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 **Shah Md Tanvir Siddiquee** 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 “**MAA O SHISHU**”. This Application is to bring all service and guideline by all Health and care about mother and child in One Place. Also make the best and easy way to knowing and getting knowledge about mother and child care. The aim of the MAA O SHISHU is to bring all supports about mother and child health care, news, growth, height, weight, food menu, weight measurements, nearby all facilities and information etc. In user hand. That will be one touch get service based Application. To develop this project, the most essential device is an android handset also an average configure Computer. The brands and model of android that are used in the project is XIAOMI 4X. After implementation of all functions, the application is tested in different android and it works fine.

DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Shah Md Tanvir Siddiquee**, Senior Lecturer, Department of CSE, FSIT 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:

Shah Md Tanvir Siddiquee
Senior Lecturer
Department of CSE, FSIT
Daffodil International University

Co-supervised by:

Mr. Anup Majumder
Lecturer
Department of CSE, FSIT
Daffodil International University

Submitted by:

Md. Hannan Talukder
ID: 142-15-3715
Department of CSE
Daffodil International University

Md. Sadhan Sarker
ID: 142-15-4001
Department of CSE
Daffodil International University

Umme Habiba
ID: 142-15-3677
Department of CSE
Daffodil International University

TABLE OF CONTENTS

| CONTENTS | PAGE |
|---|-------------|
| Approval | ii |
| Board of Examiners | ii |
| Acknowledgements | iii |
| Abstract | iv |
| Declaration | v |
| Table of contents | vi |
| List of figures | viii |
| List of Tables | viii |
| | |
| CHAPTER 1: INTRODUCTION | 1-3 |
| | |
| 1.1 Introduction | 1 |
| 1.2 Motivation | 1 |
| 1.3 Objectives | 2 |
| 1.4 Expected Outcome | 3 |
| 1.5 Report Layout | 3 |
| | |
| CHAPTER 2: BACKGROUND | 4-6 |
| | |
| 2.1 Introduction | 4 |
| 2.2 Related Works | 4 |
| 2.3 Comparative Studies | 5 |
| 2.4 Scope of the Problem | 6 |
| 2.5 Challenge | 6 |
| | |
| CHAPTER 3: REQUIREMENT SPECIFICATION | 7-14 |
| | |
| 3.1 Business Process Modeling | 7 |

| | |
|---|--------------|
| 3.2 Requirement Collection and Analysis | 10 |
| 3.3 Use Case Modeling and Description | 12 |
| 3.4 Logical Data Model | 13 |
| 3.5 Design Requirements | 14 |
| CHAPTER 4: DESIGN SPECIFICATION | 19-22 |
| 4.1 Front-end Design | 15 |
| 4.2 Back-end Design | 36 |
| 4.3 Interaction Design and UX | 36 |
| 4.4 Implementation Requirements | 37 |
| CHAPTER 5: IMPLEMENTING AND TESTING | 39-40 |
| 5.1 Implementation of Database | 39 |
| 5.2 Implementation of Front-end Design | 39 |
| 5.3 Implementation of Interactions | 40 |
| 5.4 Testing Implementation | 40 |
| 5.5 Test Results and Reports | 40 |
| CHAPTER 6: CONCLUSION AND FUTURE SCOPE | 41-44 |
| 6.1 Discussion and Conclusion | 41 |
| 6.2 Limitations | 42 |
| 6.3 Scope for Further Developments | 43 |
| APPENDIX | 43 |
| REFERENCES | 43 |
| PLAGIARISM REPORT | 44 |

LIST OF FIGURES

| FIGURES | PAGE NO |
|---------------------------------------|----------------|
| Figure 1.1 System Flowchart | 17 |
| Figure 3.1 Waterfall Model | 9 |
| Figure 4.1: Use Case Diagram of User | 15 |
| Figure 4.2: Use Case Diagram of Admin | 15 |
| Figure 5.1: Homepage | 19 |
| Figure 5.2: Kobe Ki Korbo | 20 |
| Figure 5.3: Check up | 21 |
| Figure 5.4: Ki Khabo | 21 |
| Figure 5.5: Nomuna Khaddo Talika | 22 |
| Figure 5.6: Khaddo Talika Banano | 23 |
| Figure 5.7: Ak Diner Kkaddo Talika | 24 |
| Figure 5.8: Khaddo Talika | 25 |
| Figure 5.9: Amar jogot | 26 |
| Figure 5.10: Dinta Kmon Jasse | 27 |
| Figure 5.11: Sokol Onuvuti | 28 |
| Figure 5.12: Ojon Thik Barse Kina | 28 |
| Figure 5.13: Ojon Mapa | 29 |

| | |
|---------------------------------------|----|
| Figure 5.14: Ojon Ar Barta | 30 |
| Figure 5.15: Onno Karo Ojon | 31 |
| Figure 5.16: Sonamonir Norasora | 32 |
| Figure 5.17: Norasorar Barta | 33 |
| Figure 5.18: Nikotoborti Haspatal | 34 |
| Figure 5.19: Haspatal Ar Obsthan | 35 |
| Figure 5.20: Shishur Shastho | 36 |
| Figure 5.21: Jonmer Por Koronio | 37 |
| Figure 5.22: Nobojatok Ar BipodChinno | 38 |
| Figure 5.23: Dudh Khawanor Poddhoti | 39 |
| Figure 5.24: Tika Thotho | 40 |
| Figure 5.25: Kkaddavas | 41 |
| Figure 5.26: Shastho Blog | 41 |
| Figure 5.27 Shastho Blog Description | 42 |

CHAPTER 1

INTRODUCTION

1.1 Introduction

In a recent number of year's instant use of communication tools like mobile devices have been successfully introduced to support communication and collaboration processes in work environments. Research suggests that the use of mobile applications also increasing rapidly day by day due to social presence and awareness within a collaborative group. Now a day's all over the world people are more interested in the various type of mobile application, and dynamical informative apps are one of the top most choices for its very significant matter. This kind of apps helps to learn easily and patiently. Android devices come in all kinds of sizes, with all sorts of features, and all sorts of prices. Each version of Android is named after dessert, and the most recent version of Android is Oreo.

That's why now a day's android based application development is also one of the top most choices of the developers in many areas. Here we use android to develop an android app to bring all service and guideline by all health and care about mother and child in One Place. Also make the best and easy way to knowing and getting knowledge about mother and child care.

1.2 Motivation

The purpose of the project is that the user will get all the necessary information about mother and child care.

The user will also able to know the location of the nearest hospital in the emergency case.

For the betterment of mother and child, our application will be notified automatically as like as reminder about the current check-up of mother and the vital vaccination for her child as usual.

Here we try to give an interface for mother to write her queries and problems and others mother can solve her problems by giving the valuable comments.

Mothers can be aware of reading the awareness growing section.

1.3 Objective

The system we are going to be built will provide a big support of mother for making her life more smoothing and flexible. Primary benefits that can be acquired by using the informative application are display as follow:

Time-Saving: User will get their desired information in a flash. It saves the time of mother because all the information that is needed during the pregnancy is now in her palm.

Life-Security: in rural area, many may fall in danger for the absence of vital information. But by the system, the user can make sure their life security. All will be predefined so there will no matter of mistake.

User-friendly: The system will provide a user-friendly background as well as function. This will open for all users.

Reliability: Because of getting notification timely, it makes the mother's life more flexible and reliable for this service. Easy and reliable service getting will create a better environment.

Growing Awareness: Going through the application, mother can grow their awareness by reading the information portal.

1.4 Expected Outcome

Every mother and baby deserves the best care possible - before, during, and after a newborn enters the world. It can provide easy service getting a platform, the platform include Thotho abong Tips, nikotoborti haspatal , amar ami, amar sonamoni, shishu kobe jonmabe, kobe ki korbo, ki khabo, amar jogot, shishur shasto etc. Here the job is all computerized so that the accuracy is maintained. Only admin can maintain a backup and it's very simple. The system has two type of accessing modes. Ma o shishu, system is managed by admin. It is the responsibility of the admin to add, update and delete any kind of information.

1.5 Report Layout

Using this system, mother will be able to get their desired services and increase her awareness about herself and her child during and after pregnancy.

This application will save the thousands of mother's life from the difficulties during and after pregnancy.

CHAPTER 2

BACKGROUND

2.1 Introduction

Ma o shishu is an android based application where anyone will be able to access and use the Application. There will be no user registration and login option available that's why anybody can use this application.

2.2 Related Works

2.2.1 Thotho abong Tips

Here users can be benefited by reading the awareness growing articles and also have an option to write their queries for solving their problems and anyone can ask and reply question in this section. So, it is very much helpful option for these users.

2.2.2 Nikotoborti Haspatal

Through this function, users can search the nearest hospital in any emergency case. However, the list of the nearest hospital is shown after clicking there. Then we can view the detail location from map after selecting the particular hospital.

2.2.3 Amar Ami

Users can be informed from this section that what should do of any pregnant mother during her whole pregnancy time. All the possible symptom of pregnant mom and necessary steps that need to take in that time are described very properly and clearly from week four to week fourteen.

2.2.4 Amar Sonamoni

From this section mother can learn that what the actual physical condition of her upcoming baby is. All the necessary steps that need to take in that time of a mother are described very properly and clearly and the structural condition of the baby is written accurately from week four to week fourteen that mother can be known all previously.

2.2.5 Shishur Shasto

This portion is very much helpful of the all pregnant mother because here we illustrate what are the necessary step must be taken for the new born baby. There are five types of criteria named 'jonmer por koronio', 'nobojatok ar bipod chinno', 'dudh khawanor podhoti', 'tika thotho', 'khaddavash' etc.

2.2.6 Shishu Kobe Jonmabe

Here users can check the most possible birthday date of the new born baby. Mothers just need to entry the last date that her menstrual cycle has stopped and our system shows the approximate birth date of the baby.

2.2.7 Kobe Ki Korbo

This section is the most crucial things for the mothers. All the vital steps named checkup, medicine, vaccine, managing blood, money saving, hospital information etc are made to as the reminder. Anyone can create any item through the portion.

2.2.8 Ki Khabo

In that section is to create the diet chart for the mother that what foods should eat and what are not. Mothers can create her food chart herself by reading the given diet chart. During the pregnancy of any women food items are the most important things.

2.2.9 Amar Jogot

Through the portion mother can make the profile that how is the day by capturing image, compare her weight with previous one and also count down how many times the upcoming baby is kicked her.

2.3 Comparative Studies

This system will give a very effective and detail information about mother and child care. It will be the best caring assistant for any mother before, during and after her

pregnancy. There are many existing system where is also available of the mother and child caring tricks and tips as usual. All the working or application that is already available for user is not as helpful as ours after researching all the documents we think so. In our system, mother will be notified automatically for the upcoming checkups and the date of the vital vaccine for her child. Besides, mother also can be updated for her queries and tips that is need to do it.

2.4 Scope of the Problem

Prenatal care is the act of leading a healthy and balanced lifestyle while woman are pregnant. Generally, this includes making good choices and going to the doctor for regular checkup. Mother are more likely to have a healthy birth if she maintains a healthy pregnancy.

We are here with our system only for those reasons that if our doctor or consultant is not available for all the time, our system is in the palm of the mother for monitoring all the activities properly. Here we have created many sections for the betterment of our mother that she will never fall in danger even during the pregnancy. This system will act as a helping hand of a mother for caring her new born baby. These are Thotho abong Tips, nikotoborti haspatal , amar ami, amar sonamoni, shishu kobe jonmabe, kobe ki korbo, ki khabo, amar jogot, shishur shasto etc.

2.5 Challenges

Using Ma o shishu user can get their desire services as like how to take care a mother and her new born child. Our main focus is to make our system more user friendly especially for the rural mothers. Here one of the most prominent task is to make our system language Bangla as it is usable for every mother. There is also an option for the users to ask her questions and anyone can reply this question for those people who have a limited consultant. This is our another challenging issues.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

By the current framework and their connections inside and outside of the framework, the framework examination is a point by point investigation of the different activity performed. Regardless of whether a competitor framework ought to think about other related frameworks, one part of investigation is characterizing the limits of the framework and deciding. At the season of investigation information are gathered on an accessible document, choice point and exchanges dealt with by the present framework. It is the procedure of identifying what should be done before how it ought to be finished. Keeping in mind the end goal to achieve this, the designer alludes the current frameworks and records. Along these lines, it is a specialty of revelation essentially. We have finished the framework investigation by input examination, yield examination and information examination of existing framework. At the essential phase of the examination, we had taken after the accompanying waterfall improvement procedure [11].

3.1.1 Waterfall Model

Generally, the waterfall demonstrate is a consecutive outline process, utilized as a part of programming advancement forms, in which advance is viewed as streaming consistently downwards through the periods of origination, start, investigation, plan, development, testing, generation/usage and upkeep [12].

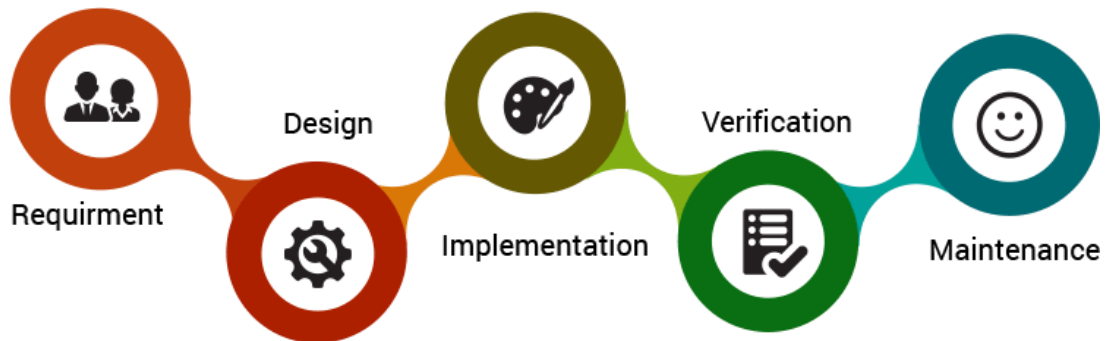


Figure 3.1: Waterfall Model

3.1.2 Requirement Gathering

All the conceivable necessities of the framework to be created are caught in this stage and reported in a prerequisite determination doc painstakingly [13].

3.1.3 System Design

The necessity particulars from the main stage are contemplated in this stage and framework configuration is made. Framework Design helps in indicating equipment and framework necessity. It additionally helps in characterizing general framework engineering [13].

3.1.4 Implementation

Alongside contributions from framework plan, the framework is first created in little projects called units, which are included the following stage. Here every unit is created and tried for its usefulness which is alluded to as Unit Testing [13].

3.1.5 Integration and Testing

Every one of the units created in the usage stage are coordinated into a framework in the wake of testing of every unit. After the post mix of the whole system, system is tried for any flaws and disappointments [13].

A few testing writes are accessible that are given in beneath:

1. Black-Box Testing
2. White-Box Testing
3. Grey-Box Testing
4. Alpha Testing
5. Beta Testing

3.1.6 Deployment of framework

At the point when the utilitarian and non-practical testing is done, the item is being conveyed in the client condition or discharged into the market ultimately [13].

3.1.7 Maintenance

There is a few a few issues which come up in the customer condition. To repair those issues patches are discharged. Likewise to build the item some better forms are discharged. As a matter of fact, upkeep is done to convey these adjustments in the client condition [13].

3.1.8 Input Analysis

Erroneous that implies the wrong information are the most well-known reason for blunders in information preparing. Blunders entered by the clients can be controlled by input outline. The information configuration is the way toward changing over client started contributions to a PCs based organization. In the framework configuration stage, the exhausted information stream outline discover legitimate information streams, information stores, sources and goals. A framework flowchart demonstrates ace documents (database), exchange records, and PC programs. Information accumulation and composed into gatherings of comparable information. Whenever distinguished, fitting information media are chosen for handling.

3.1.9 Input information

The reason for planning input information is to make information passage as simple, sensible, and free from blunders as would be prudent. In contributing information, administrators need to know the streaming. The apportioned space for each field is given in beneath.

- Field arrangement, which should in the source archive.
- The arrange in which the information fields are entered.

When we approach input information outline, the source report that catch the information and select the media used to enter them into the PC.

3.1.10 Output Analysis

PC yield is the most imperative and direct wellspring of data to the client generally. Effective, ideal and clear yield configuration ought to enhance the framework's associations with the client and help in basic leadership. We have tried our framework by giving some fitting information. The yield, which comes as indicated by our information, is right. That implies the client inquiry come by our information precisely and demonstrate the right organization moreover.

3.1.11 Data Analysis

In this information investigation stage, the information has been chosen from input examination as per the genuine prerequisite of the framework. The vast majority of the current frameworks discovers specialists or doctor's facilities or diagnostics or others therapeutic data as it were. In any case, they don't give the greater part of the data like us that is such a great amount of accommodating for minding mother and kid. That is the reason we give that data which clients really need to know.

3.2 Requirement Collection and Analysis

Attainability consider intends to dispassionately and reasonably reveal the qualities and shortcomings of a current business or proposed wander, openings and dangers display in the earth, the assets required to help through, and eventually the prospects for progress. In its easiest terms, the two criteria to judge achievability are fetched required and incentive to be accomplished.

A very much composed practicality study ought to give an authentic foundation of the business or task, a depiction of the item or administration, bookkeeping proclamations, points of interest of the activities and administration, showcasing exploration and approaches, money related information, legitimate necessities and duty commitments. By and large, possibility ponders go before specialized advancement and task execution.

A possibility contemplate assesses the task's potential for progress; along these lines, saw objectivity is an essential factor in the believability of the examination for potential financial specialists and loaning foundations. It should subsequently be directed with a target, fair way to deal with give data whereupon choices can be based [14].

There are a few factors in Feasibility and some normal are takes after:

1. Technical practicality
2. Economic practicality
3. Legal practicality
4. Operational practicality
5. Schedule practicality

3.2.1 Technical practicality

The evaluation depends on a layout outline of framework necessities as far as Input, Processes, Output, Fields, Programs, and Procedures. This can be evaluated as far as volumes of information, patterns, recurrence of refreshing, and so on with a specific end goal to appraise whether the new framework will perform satisfactorily or not. Innovative plausibility is done to decide if the organization has the ability, as far as programming, equipment, work force and aptitude, to deal with the finish of the undertaking [15].

3.2.2 Economic attainability

Monetary examination is the most every now and again utilized technique for assessing the adequacy of another framework. All the more generally known as cost/advantage investigation, the method is to decide the advantages and reserve funds that are normal from an applicant framework and contrast them and expenses. In the event that advantages exceed costs, at that point the choice is made to plan and execute the framework. A business person should precisely measure the cost versus benefits before making a move [15].

3.2.3 Legal plausibility

Decides if the proposed framework clashes with lawful prerequisites, e.g. an information handling framework must follow the nearby Data Protection Acts. Since all the product we are utilizing is free, so we are not damaging any hostile to theft law [15].

3.2.4 Operational attainability

Operational attainability is a measure of how well a proposed framework tackles the issues, and exploits the open doors distinguished amid scope definition and how it fulfills the necessities recognized in the prerequisites examination period of framework improvement [15].

3.2.5 Schedule attainability

A task will fizzle when it takes too long to be in any way finished before it is helpful. Commonly this implies evaluating to what extent the framework will take to create, and on the off chance that it can be finished in a given day and age utilizing a few techniques like payback period. Calendar attainability is a measure of how sensible the task timetable is. Given our specialized aptitude, are the task due dates sensible? A few tasks are started with particular due dates. You have to decide if the due dates are obligatory or attractive [15].

3.3 Use case Modeling and Description

A use case diagram in the Unified Modeling Language (UML) is a type of behavioral diagram defined by and created from a Use-case analysis. Its purpose is to present a graphical overview of the functionality provided by a system in terms of actors, their goals and any dependencies between those use cases. The main purpose of a use case diagram is to show what system functions are performed for which actor [3]. Use case are typically related to 'actor'. An actor is a human or machine entity that interact with the system to perform meaningful word. This Project has one actor.

- ❖ User
- ❖ Admin

3.3.1 Use Case Diagram of User

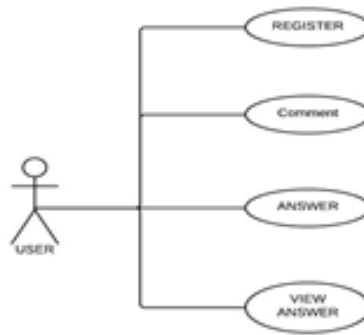


Figure 3.1: Use Case Diagram of User

3.3.2 Use Case Diagram of Admin

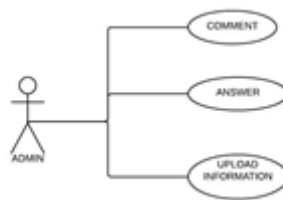


Figure 3.2: Use Case Diagram of Admin

3.4 Logical Data Model

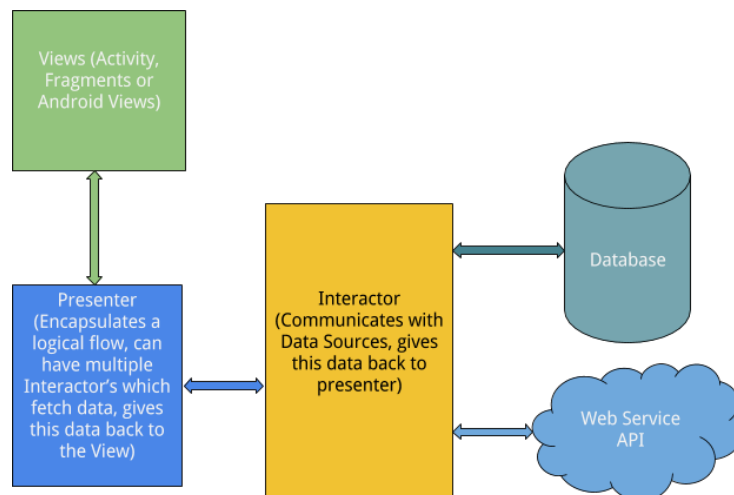


Figure 3.2 Logical Data Model

3.5 Design Requirements

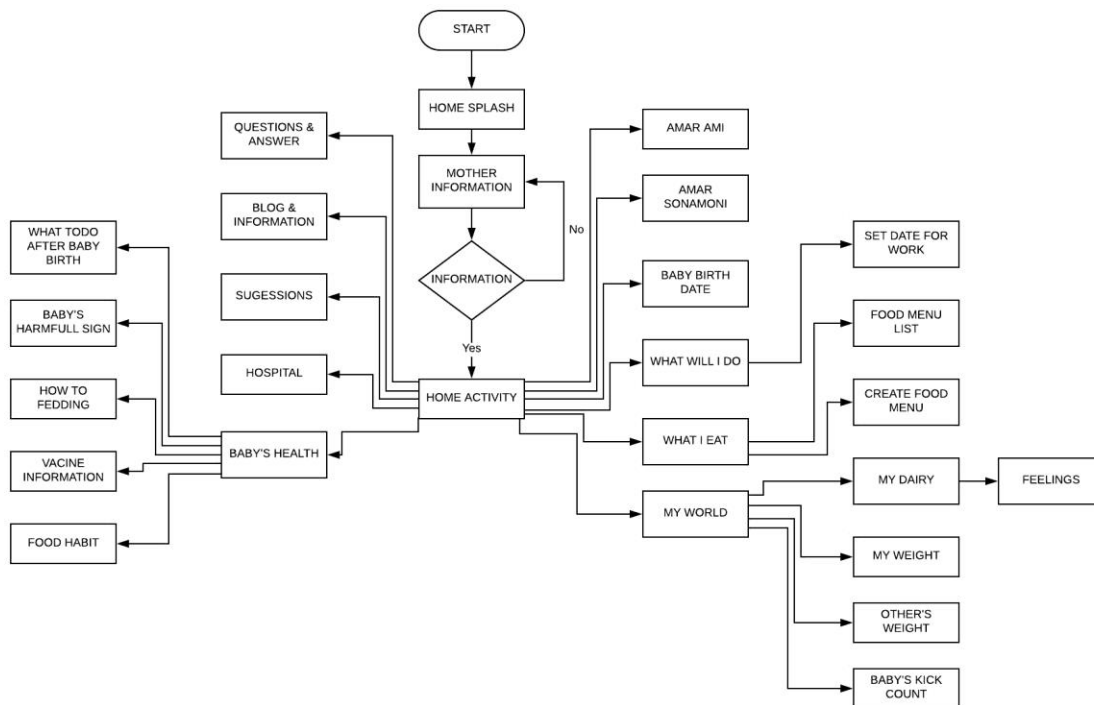
In this portion we need design requirements. For these requirements we use hand drawing initially and after that we use XML design view for design.

List of design requirements

1. XML
2. HTML for server design

For design requirements we use flowchart and that are given bellow.

A flowchart is a type of diagram that represents an algorithm, workflow or process, showing the steps as boxes of various kinds, and their order by connecting them with arrows. This diagrammatic representation illustrates a solution model to a given problem. Flowcharts are used in analyzing, designing, documenting or managing a process or program in various fields [6].



CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-end Design

Systems design may be the procedure for determining the actual structures, elements, quests, interfaces, as well as information for any program to fulfill specific needs. Just about all organizations from the program happen to be patterned because services to be able to individual their own reasoning through presentational signal and also to separate the actual data source inquiries. Separating the actual data source inquiries assists you to help to make fast modifications within the buildings associated with organizations and also to relieve the actual alternative associated with fundamental data source system that is presently SQL Server. With this strategy associated with improvement, brand new organizations as well as actions could be put into the machine whenever required. Therefore, the machine gets extremely extendable as well as modular [2].

4.2 Back-end Design

Ma o Shishu System using the following Language and Database.

Language:

- Java
- Php

For Design:

- XML

Platform

- Android Studio
- Laravel Framework.

4.3 Interaction Design and UX

Since it is an android application, so users will access application by android device or Blue Stack, Andy software. In that application, we try to made easier by use Bangla font.

This application will use for awareness of health care especially for mother care during pregnancy.

4.3.1 Homepage



Figure 5.1: Homepage

All the operator logo display in the home activity. Those are Image Button. User just needs to tap on any operator logo to get selected operation based service. Because all logo display on main screen nobody needs to search for select operator.

4.3.2 Kobe Ki Korbo

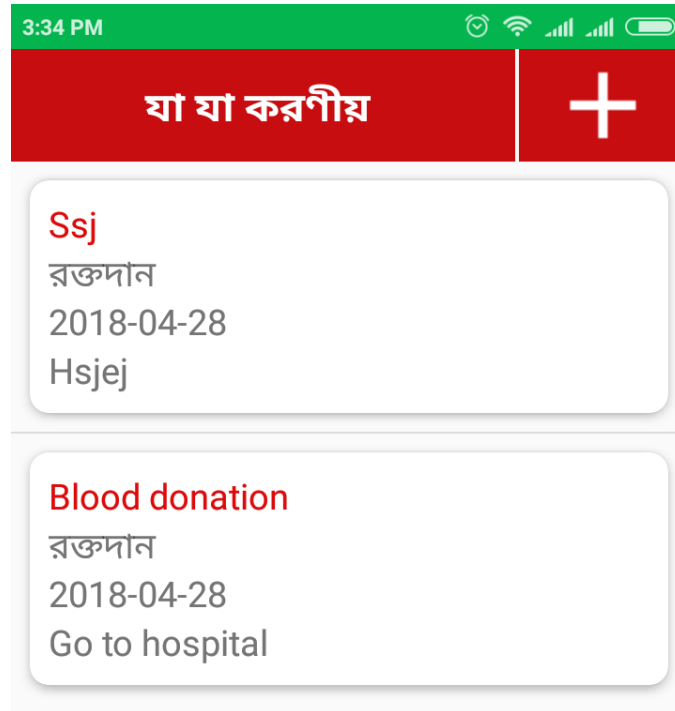


Figure 5.2: Kobe Ki Korbo

In this section users can add any emergency event and then he will be notified later. Here user can create multiple event for the safety of a pregnant mother.

4.3.3 Check up

If Users click on the Event then it shows the above notification in a dialog box with two buttons yes or no.

4.3.4 Ki Khabo

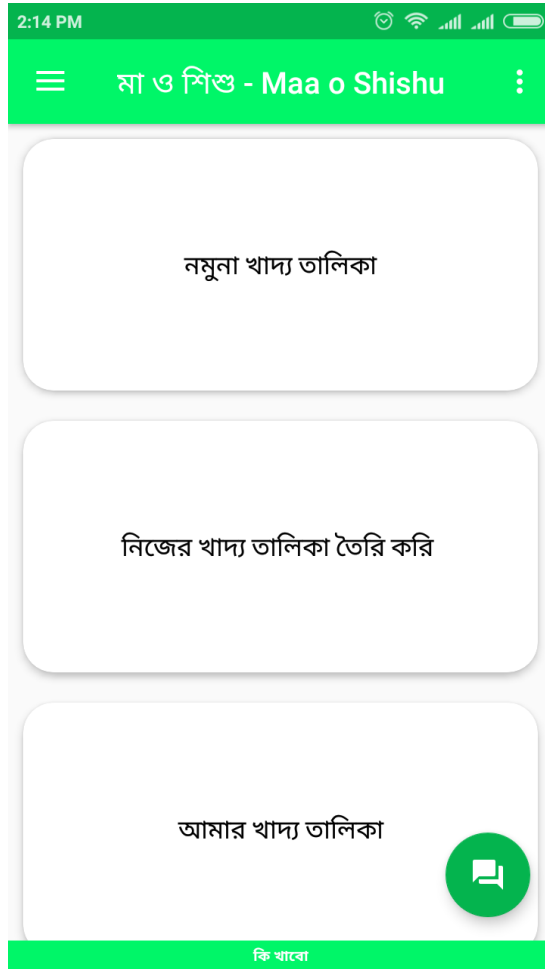
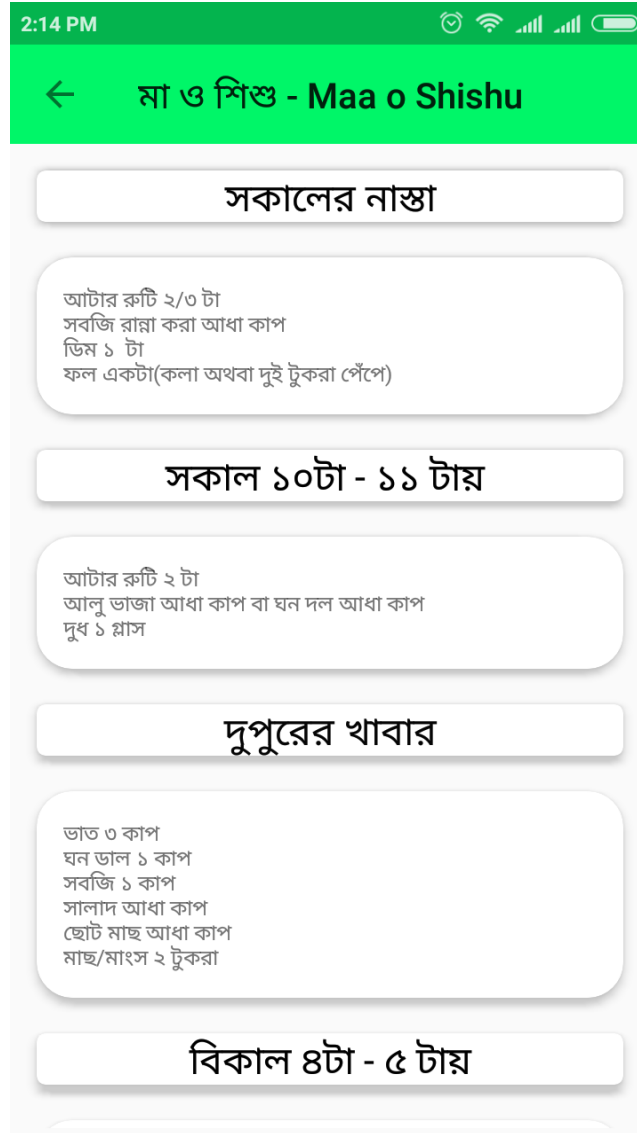


Figure 5.4: Ki Khabo

In that screen is to create the diet chart for the mother that what foods should eat and what are not. Mothers can create her food chart herself by reading the given diet chart. During the pregnancy of any women food items are the most important things

4.3.5 Nomuna Khaddo Talika



This screen describes an ideal food/diet chart of a mother for a day and helps to manage herself food habit or diet chart.

4.3.6 Khaddo Talika Banano

2:14 PM

← মা ও শিশু - Maa o Shishu

শর্করা জাতীয় খাবার

- ১ টি রুটি
- ১ টি নান রুটি
- ১ স্লাইস পাউরুটি
- ১ কাপ মুড়ি
- ১ কাপ খৈ
- আধা কাপ শুকনো চিড়া
- ৪ টি মিস্টি বিস্কুট(১০ গ্রাম ওজনের)
- ১ কাপ মিস্টি আলু সিদ্ধ
- আধা কাপ আলু সিদ্ধ
- আধা কাপ আলু ভাজি
- ১ চামচ(৫মি. লি.) মধু

সেভ করুন

Figure 5.6: Khaddo Talika Banano

By tapping the check box user can easily make her diet plan together. This food item may contain carbohydrate, protein and so on.

4.3.7 Ak Diner Talika

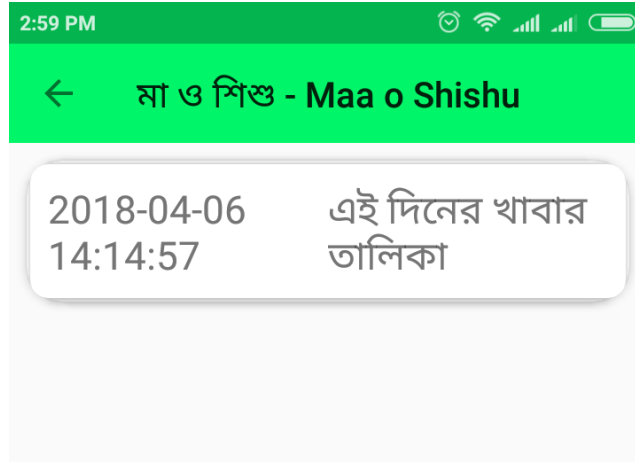


Figure 5.7: Ak Diner Kkaddo Talika

In this screen user can see her previously created diet plan including the date and time.

4.3.8 Khaddo Talika

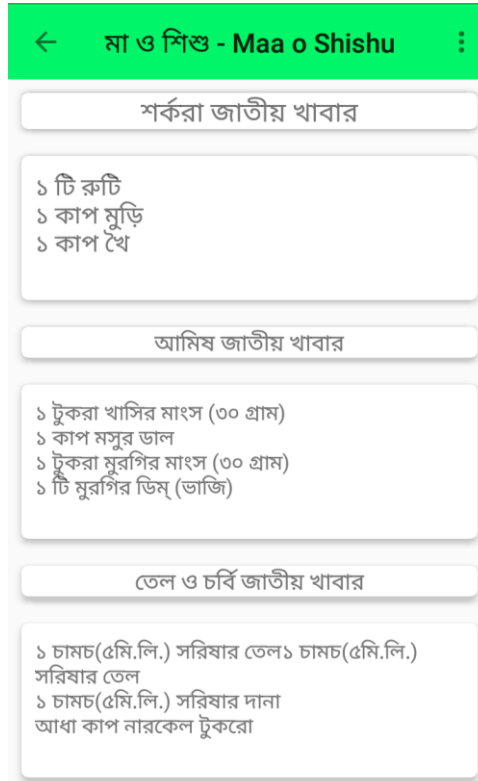


Figure 5.8: Khaddo Talika

Here some food list for giving idea about various category/type food. It also helps you to choose for your daily food habit.

4.3.9 Amar Jogot

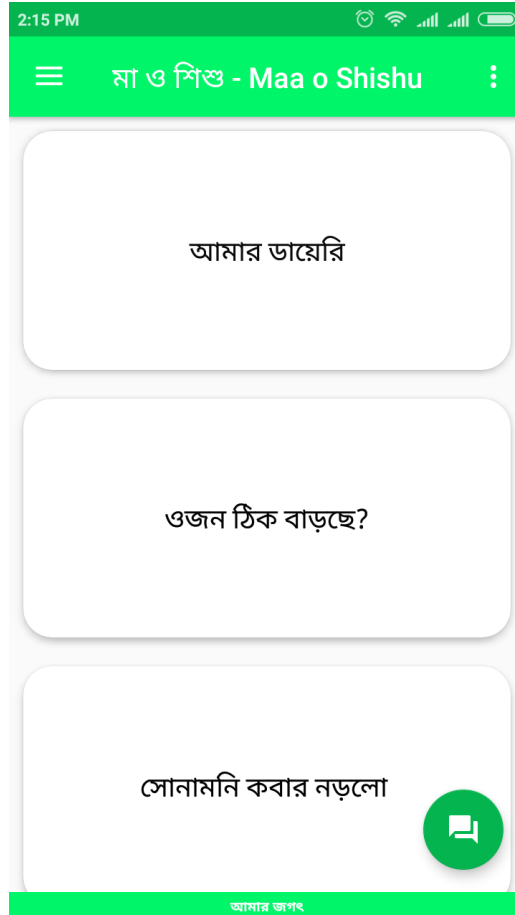


Figure 5.9: Amar jogot

Through the portion mother can make the profile that how is the day by capturing image, compare her weight with previous one and also count down how many times the upcoming baby is kicked her.

4.3.10 Dinta Kamon Jasse

2:15 PM

← মা ও শিশু - Maa o Shishu

বমি বমি লাগছে

খাবারের রুচি ভালো

ঘুম ভালো হয়েছে

পায়খানা স্বাভাবিক

শ্বাস-প্রশ্বাস স্বাভাবিক

যোনিপথে রক্ত যাচ্ছে

পেতে ব্যথা আছে

কোমর/পিঠে ব্যথা হচ্ছে

গা-হাত-পা ফুলেছে

Figure 5.10: Dinta Kmon Jasse

Here mother can inform her daily physical condition with selecting any symptom. She also can attach a Picture by capturing through camera.

4.3.11 Sokol Onuvuti

This part holds the list of all posted daily physical conditions along with picture. So she can easily identify her physical condition is improving or not.

4.3.12 Ojon Thik Barse Kina



Figure 5.12: Ojon Thik Barse Kina

Can see present weight and also the previous weights she took continuously. She can compare with herself weight and also with others.

4.3.13 Ojon Mapa

The screenshot shows a mobile application interface with a green header bar. The header contains a back arrow on the left and the text 'মা ও শিশু - Maa o Shishu' in the center. Below the header, there are two white rounded rectangular boxes. The first box is titled 'গর্ভপূর্ববর্তী ওজন' (Previous Weight) and contains a dropdown menu with the value '51' and a unit 'কেজি' (kg). The second box is titled 'বর্তমান ওজন' (Current Weight) and contains a dropdown menu with the value '43' and a unit 'কেজি' (kg). Below these two boxes is a grey button with the text 'ওজন নির্ণয় করুন' (Calculate Weight).

Figure 5.13: Ojon Mapa

More specific screen shows for comparing weight between present and previous.

4.3.14 Ojon Ar Barta

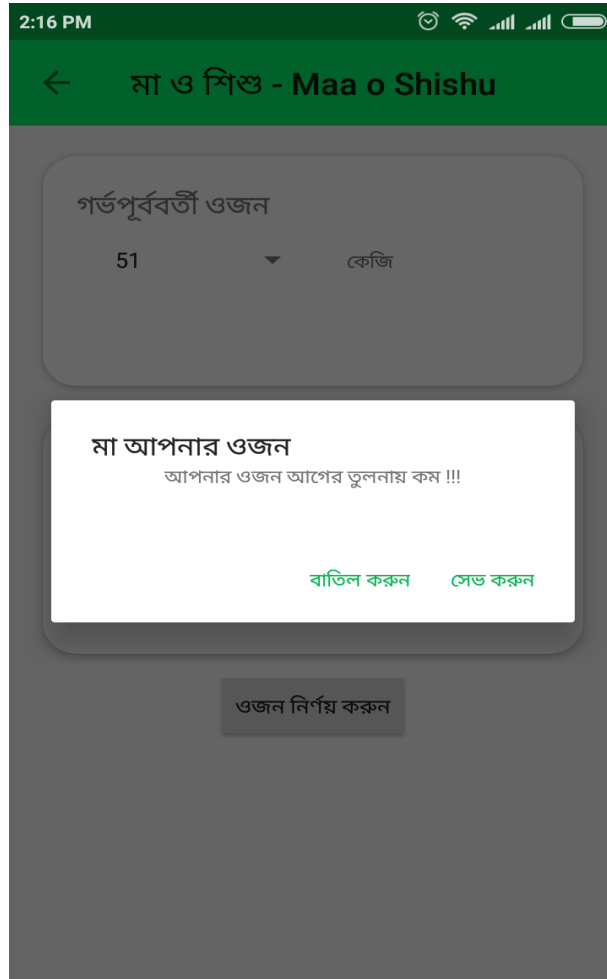
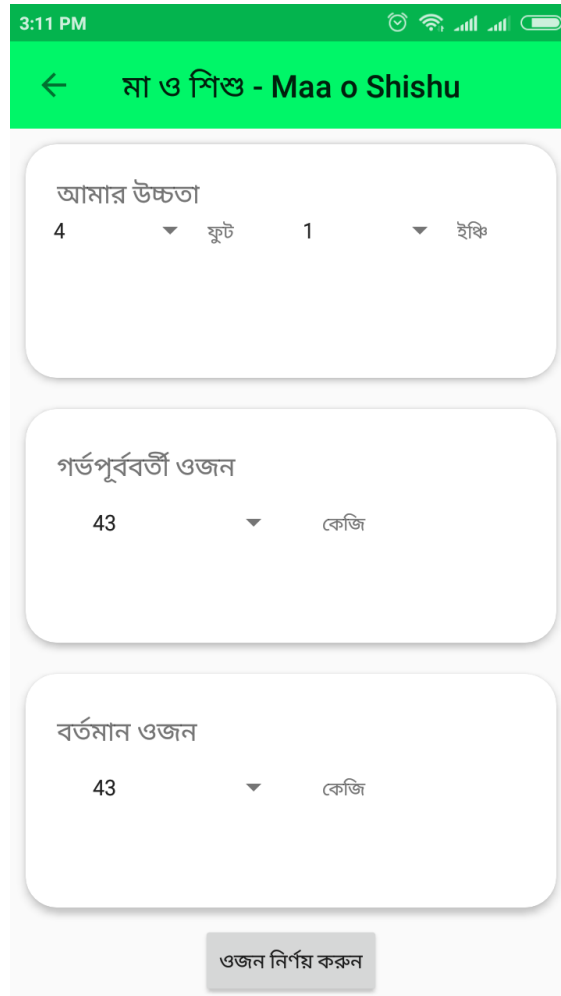


Figure 5.14: Ojon Ar Barta

When mother add her weight from ojon nirnoy korun button then a dialog will appear to inform whether her weight is increasing or not.

4.3.15 Onno Karo Ojon



3:11 PM

← মা ও শিশু - Maa o Shishu

আমার উচ্চতা

4 ▾ ফুট 1 ▾ ইঞ্চি

গর্ভপূর্ববর্তী ওজন

43 ▾ কেজি

বর্তমান ওজন

43 ▾ কেজি

ওজন নির্ণয় করুন

Figure 5.15: Onno Karo Ojon

Here is an option to measure others people weight and can compare with previous weight. And also she can input the height.

4.3.16 Sonamonir Norasora

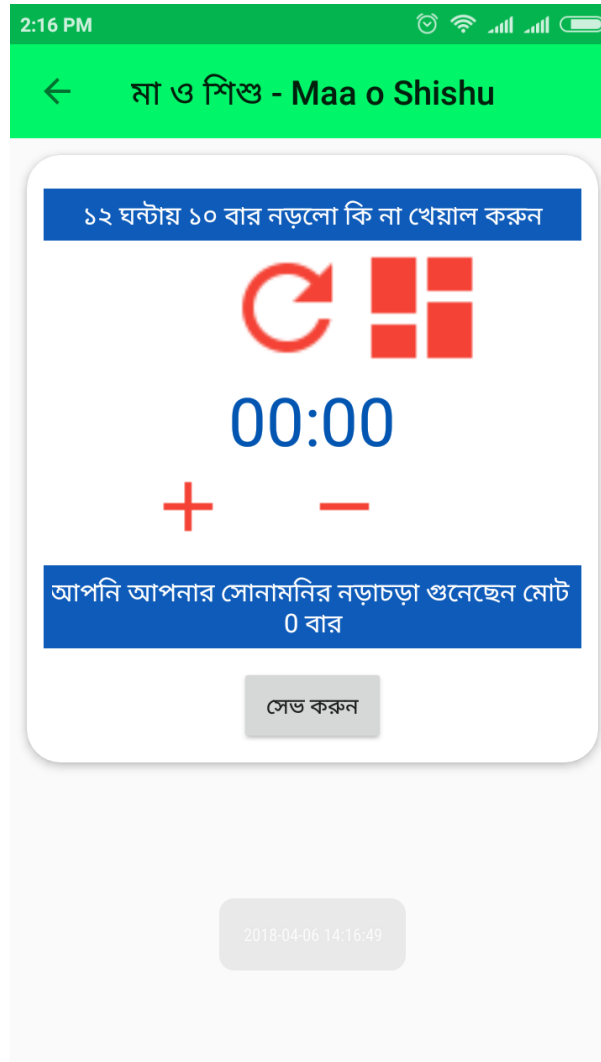


Figure 5.16: Sonamonir Norasora

Whenever the child moves, her mother can feel and can add this count immediately in this screen. So at the end of the day she can find how many times she feels the child movement.

4.3.17 Norasorar Barta

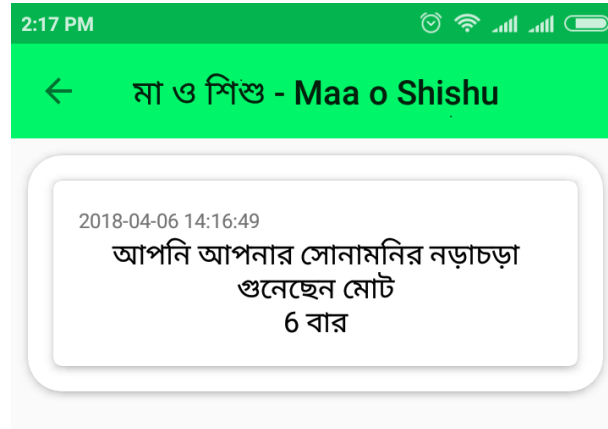


Figure 5.17: Norasorar Barta

Finally she will be informed by this message with the number of count of child movement in a day.

4.3.18 Nikotoborti Haspatal



Figure 5.18: Nikotoborti Haspatal

This app will take user's current location and provides a list of all the nearest hospital that may helpful to user and user's baby in the critical situation as well as for suggestion also.

4.3.19 Haspatal Ar Obsthan

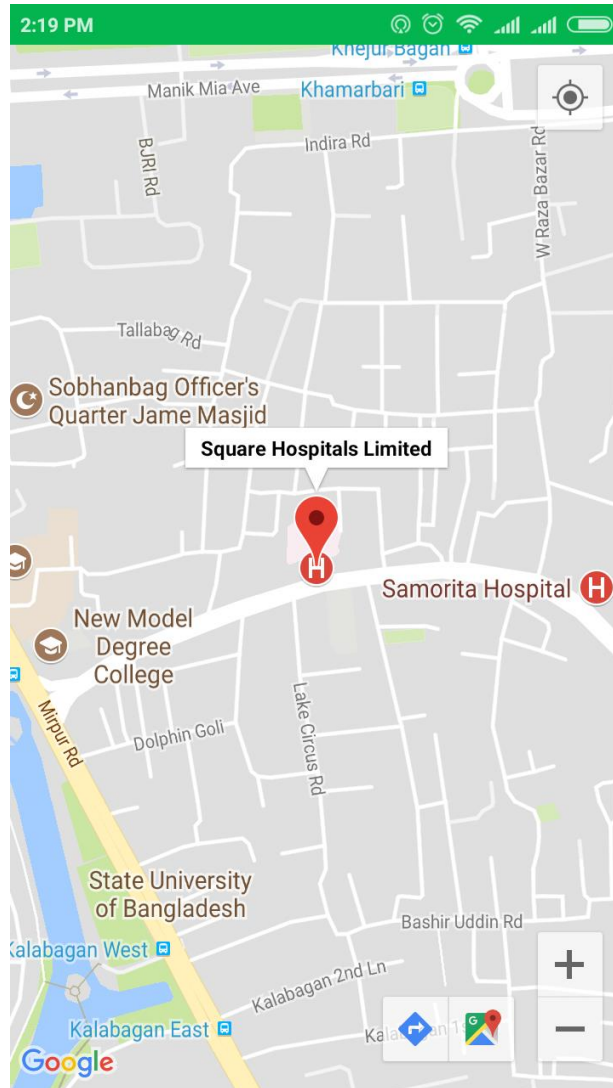


Figure 5.19: Haspatal Ar Obsthan

When a user taps on a list item showing on previous screen, user can see this screen with the detail location of the hospital pinned on Google map.

4.3.20 Shishur Shastho

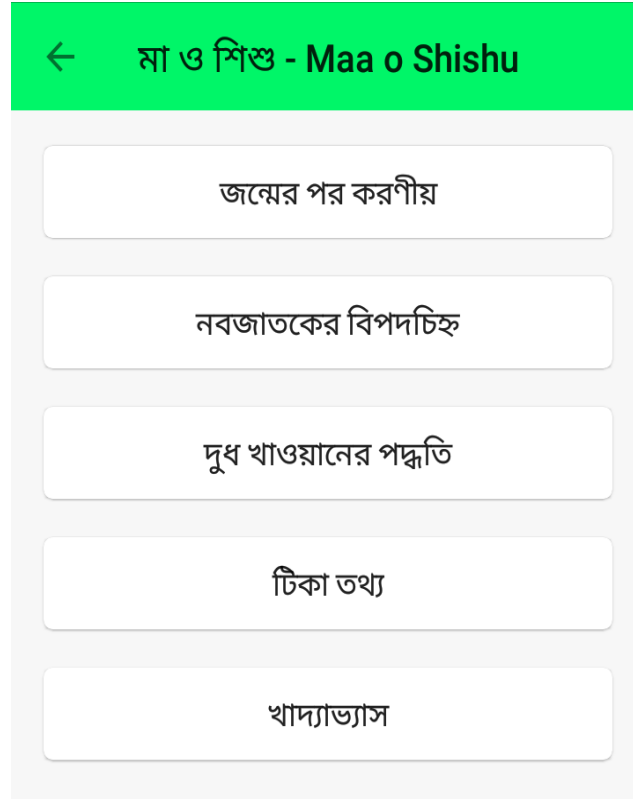


Figure 5.20: Shishur Shastho

This portion is very much helpful of the all pregnant mother because here we illustrate what are the necessary step must be taken for the new born baby. There are five types of criteria named 'jonmer por koronio', 'nobjatok ar bipod chinno', 'dudh khawanor podhoti', 'tika thocho', 'khaddavash' etc

4.3.21 Jonmer Por Koronio

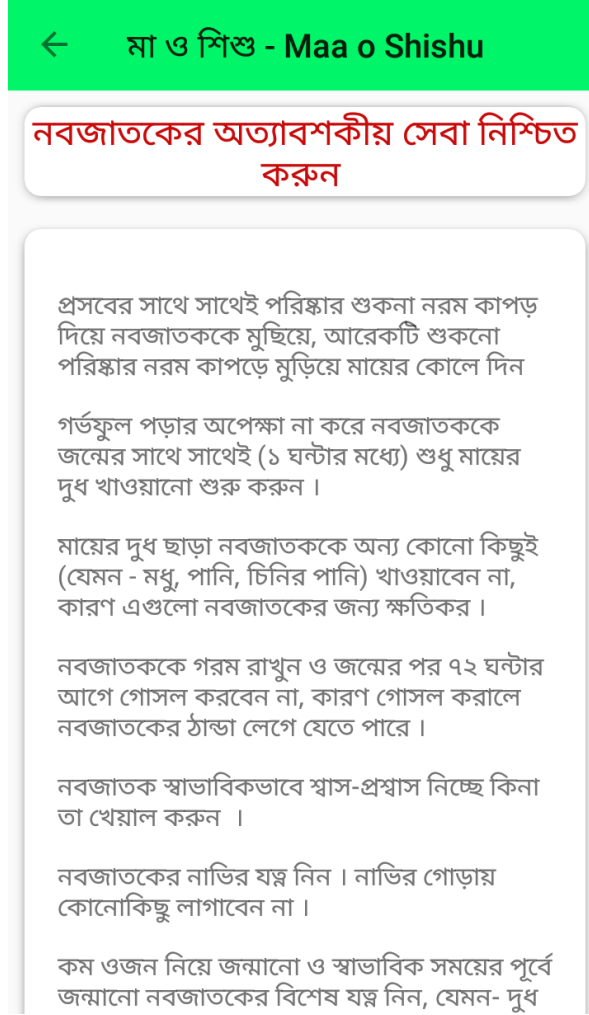


Figure 5.21: Jonmer Por Koronio

Detail information shows above the screen about the awareness of a newborn child and it describe all important tasks that should do daily.

4.3.22 Nobojatok Ar BipodChinno

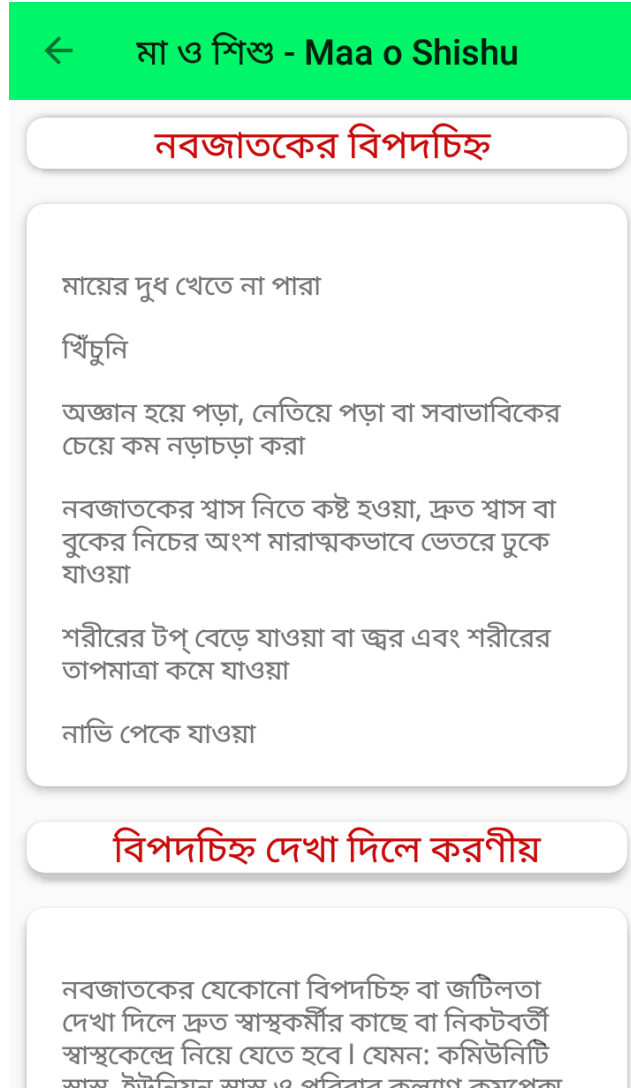


Figure 5.22: Nobojatok Ar BipodChinno

This is awareness growing information to help mother to find any disease and what are the steps should take for that disease.

4.3.23 Dudh Khawanor Poddhoti

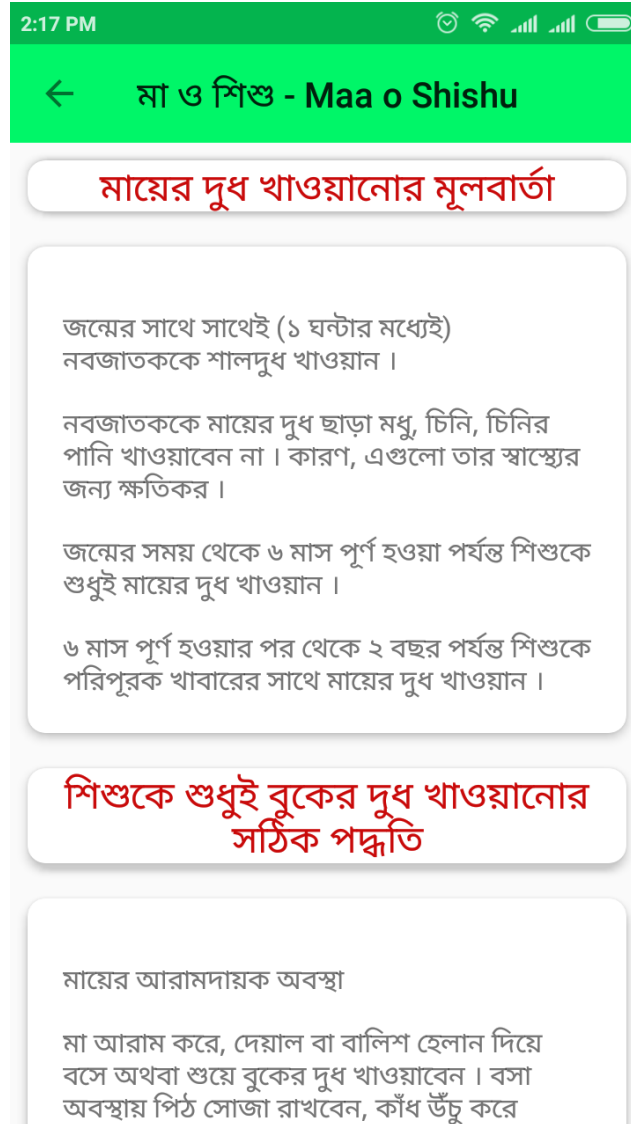


Figure 5.23: Dudh Khawanor Poddhoti

This section helps mother how to feed the baby accurately.

4.3.24 Tika Tottho

| রোগের নাম | টিকার নাম | ডোজের সংখ্যা | টিকা শুরু করার সঠিক সময় |
|---|--|--------------|--------------------------|
| যক্ষা | বিসিজি | ১ | জন্মের পর থেকে |
| ডিফথেরিয়া, হুপিংকাশি, ধনুস্টঙ্কার, হেপাটাইটিস-বি, হিমোফাইলাস, ইনফ্লুয়েঞ্জা-বি | বিপেন্টা ভ্যালেন্ট ভ্যাকসিন (ডিপিটি, হেপাটাইটিস-বি, হিব) | ৩ | ৬ সপ্তাহ |
| নিউমো কক্কাল নিমোনিয়া | পিসিডি ভ্যাকসিন | ৩ | ৬ সপ্তাহ |
| পোলিওমাই লাইটিস | ওপিডি | ৪* | ৬ সপ্তাহ |
| হাম ও রুবেলা | এমআর টিকা | ১ | ৯ মাস বয়স পূর্ণ হলে |

Figure 5.24: Tika Thocho

Mother needs to know about the whole information of vaccines as it is very important for her child. This screen shows a detail list of diseases, vaccines, number of dozes and the proper time of taking vaccine.

4.3.25 Khaddavas

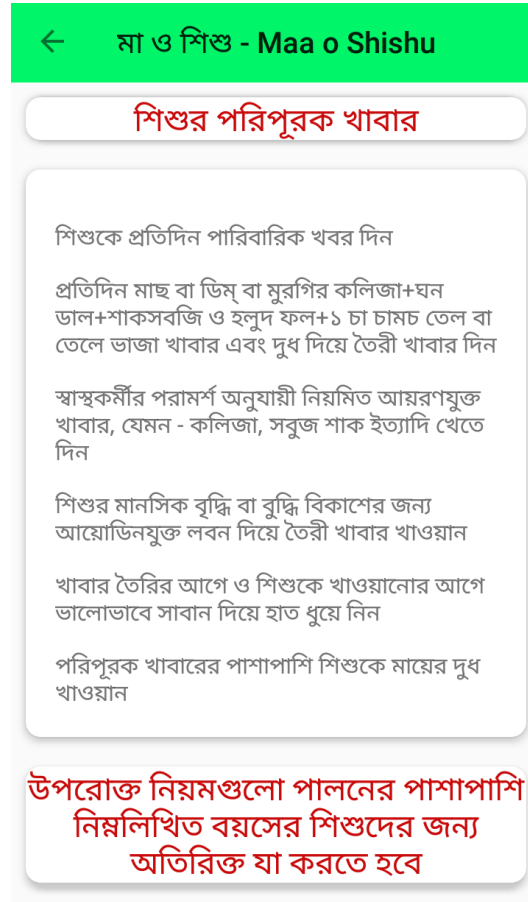


Figure 5.25: Kkaddavas

This article shows the proper diet chart for the new born baby that is very much helpful to keep fit and increase the immunity power.

4.3.26 Shastho Backend Api

In this part user will get information which are uploaded from web portal.

Admin can control and maintain update health awareness and Question and answer will be given through this panel. This panel also develop to know user activity and status.

4.3.27 Shastho Blog Description

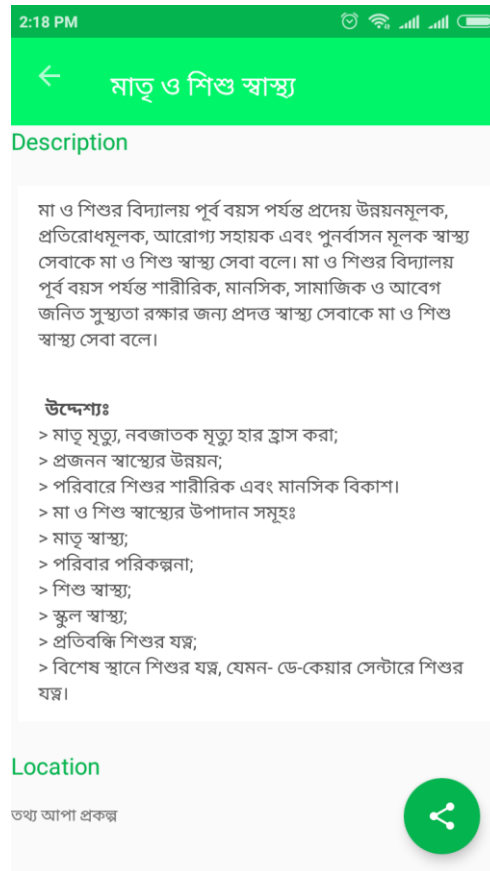


Figure 5.27 Shastho Blog Description

A business process or business method is a collection of related, structured activities or tasks that produce a specific service or product (serve a particular goal) for a particular customer or customers. It may often be visualized as a flowchart of a sequence of activities with interleaving decision points or as a Process Matrix of a sequence of activities with relevance rules based on data in the process [4].

4.4 Implementation Requirements

4.4.1 Windows-Based Requirements

Computers running Microsoft Windows must meet the following minimal hardware and software requirements.

- Dual-core 64-bit processor
- 8 GB of memory
- Up to 24 GB of internal storage (Kony Visualizer: 4GB, Android SDK: 2GB, Windows SDK: 4GB, BlackBerry NDK: 4GB, plus ample space for multiple complex projects)
- Network interface card
- Windows 10, Windows 8.1 Update, Windows 8, and Windows 7.
-

4.4.2 Mac-Based Requirements

Apple computers must meet the following minimal hardware and software requirements.

- x86-64 processor (64-bit Mac with an Intel Core 2 Duo, Intel Core i3, Intel Core i5, Intel Core i7, or Xeon processor)
- 8 GB of memory
- 150 GB of internal storage (Kony Visualizer: 4GB, Storage for multiple, complex projects: 10GB, Apple Xcode: varies, depending on the features and simulators you install, and the number of earlier versions of iOS your app needs to support)
- Network interface card
- Mac OS X version 10.7 and above
- Java SE 7 runtime (Required by Eclipse. You are prompted to install Java SE 7 runtime the first time you launch Kony Visualizer.)

CHAPTER 5

IMPLEMENTATION & TESTING

5.1 Implementation of Database

In this section, we will describe our total development process as well as the screenshot. Implementation is a very challenging task. As each module, has described, it is must be checked out to remove any errors that means all demo design are tested. The Demo modules are then assembled to integrate to the real form of the system. When the integration is finished, the total system is being tested.

Testing is one of the most important parts for a system or software. Testing the behavior of the whole software/system as defined in software requirements specification (SRS) is known as system testing, its focus is to verify that the user requirements are fulfilled. System testing is done after integration testing is complete. System testing should test functional and non-functional requirements of the software.

5.2 Implementation of Front-end Design

Ma O Shishu System using the following Language and Database.

Language: Java, Php

For Design: XML, HTML, CSS, JavaScript

Platform Android Studio, Laravel Framework

5.3 Implementation of Interactions

In this chapter, we are discussed about our development project and lastly testing our application and Website. After developing module by module firstly run in android AVD and then run this APK file in Android mobile Device. And for the website firstly run in local host and then run in Webhost. Problem of illogical data, unclear field, inconsistent movement and performance were detected, tackled and eliminated through different tests.

In usability testing basically, we as testers tests the ease with which the user interfaces can be used. It is tests that whether the application or the product built is user-friendly or not. Usability Testing is a black box testing technique so, our usability testing also reveals whether users feel comfortable with our application according to different parameters – the flow, navigation and layout, speed and content especially in comparison to prior or similar applications.

Usability Testing tests the following features of the App.

- How easy it is to use the software.
- How easy it is to learn the software.
- How convenient is the software to end user.

So, at the end we can carry out the results as the benefits of usability testing to the end user or the learner:

- Better quality software
- Software is easier to use
- Software is more readily accepted by users
- Shortens the information for new users
- Better UI

Innovative idea for the traveling environments.

5.4 Testing Implementation

Black Box Testing treats an application as a black box and only looks at the outputs that are produced by specific inputs into the application. The black box tester does not need to understand why the code does what it does, and they should not have access to the source code of the application. Requirements are used to determine the correct outputs of black box testing, and these test cases are used to validate that the right software is being build [10].

5.5 Test Results and Reports

The project has been tested as Black Box Testing by some users and gathered some positive and negative feedback. Those feedbacks are below **Positive Feedback:**

- i. The interface of the application is simple and good.
- ii. The search option is also simple and very effective.
- iii. Friendly to use.

Negative Feedback:

- i. There should control form offline.
- ii. Should add more services.

CHAPTER 6

CONCLUSION AND FUTURE SCOPE

6.1 Discussion and Conclusion

From developer point of view the “Ma O Shishu” an android application successfully developed. Through this application user can get services they need anytime anywhere by help of an android mobile phone. Users can get notification for the upcoming event. In particular, this system can provide users with location based information, which can be browsed or queried through a map. User can get the information about enhancing the awareness by reading the information portal.

There is always chance of upgrading the system further more. It’s a complete package of ensuring the health care of mother and her new born baby.

6.2 Outcome

- Learned, how to architecture an Android Mobile application
- Team work
- Using Popular technology like Google Maps with Direction
- Learned details about mother and child health care before, during and after pregnancy.
- Learned to create information portal.

6.3 Limitations

- There might be some bugs and need more testing.
- Android Application Target version is Oreo, need more update for upcoming android version.
- User interface is not so much smooth and sharp.
- All the functions are not leveled orderly.

6.4 Future Suggested Work

The system has been developed with future development possibilities in consideration. We wish we could improve the system and reduce the limitation of the system in a short time. The developers of the system wish to continue their involvement contribution to this system for further development operation.

This project also has the scope of enhancements like:

- Develop for Windows and IOS application.
- More attractive user interface to make it more user friendly.
- Can add more feature.
- The reliability of the android application can be increase.

APPENDIX

Appendix A

Project Reflection There are main two features in our application

- Backend API
- Android Application

API Creating for (analysis user activity and user information, and also provide application different type of update dynamically)

User can interact through android application. User notify about services

REFERENCES

- [1] Systems design, http://en.wikipedia.org/wiki/Systems_design, Last Accessed: 20th November, 2016
- [2] Use case diagram, http://en.wikipedia.org/wiki/Use_case_diagram, Last Accessed: 8th January, 2016
- [3] Business process, https://en.wikipedia.org/wiki/Business_process, Last Accessed: 8th January, 2016
- [4] Class diagram, https://en.wikipedia.org/wiki/Class_diagram, Last Accessed: 9th January, 2016
- [5] Flowchart, <https://en.wikipedia.org/wiki/Flowchart>, Last Accessed: 9th January, 2016
- [6] Database design, http://en.wikipedia.org/wiki/Database_design, Last Accessed: 28th February, 2016
- [7] Software development, http://en.wikipedia.org/wiki/Software_development, Last Accessed: 6th March, 2016
- [8] Database schema, http://en.wikipedia.org/wiki/Database_schema, Last Accessed: 3rd March, 2016
- [9] Black-box testing, https://en.wikipedia.org/wiki/Black-box_testing, Last Accessed: 19 January, 2017
- [10] Systems analysis, https://en.wikipedia.org/wiki/Systems_analysis, Last Accessed: 24 January, 2017
- [11] Waterfall model, https://en.wikipedia.org/wiki/Waterfall_model, Last Accessed: 24 January, 2017
- [12] SDLC - Waterfall Model, https://www.tutorialspoint.com/sdlc/sdlc_waterfall_model.htm, Last Accessed: 24 January, 2017
- [13] Feasibility study, https://en.wikipedia.org/wiki/Feasibility_study, Last Accessed: 24 January, 2017

PLAGIARISM REPORT

The screenshot shows a web interface for a plagiarism checker. On the left is a dark sidebar with the 'plagamme' logo and navigation options: Upload, Papers, Payments, Free, Earn money, RATE US (with five stars), and CONTACT US (with a speech bubble icon). The main content area displays a report for 'Final-Project-Report.docx' uploaded '2 minutes ago'. A large donut chart shows a 'Similarity' score of 19%. Below the chart are three categories: Paraphrase (1%), Improper Citations (0%), and Matches (15). A red warning banner with three stars reads 'HIGHEST PLAGIARISM RISK'. A pink button labeled 'View detailed report' is visible. At the bottom, there is a purple footer with a search icon and the text 'Is this an English word and is it correct?' and a partial 'Tan' logo.