

KRISHI-BONDHU: A WEB BASED SYSTEM FOR FARMER

BY

MD ARIFUL ISLAM

ID: 162-15-7885

PRITAM CHANDRA SHIL

ID: 162-15-7882

AND

SARWAR JAHAN SHAJIB

ID: 142-15-4045

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

Supervised By

NAZMUN NESSA MOON

Assistant professor

Department of CSE

Daffodil International University

CO-Supervised By

MR. GAZI ZAHIRUL ISLAM

Assistant professor

Department of CSE

Daffodil International University



DAFFODIL INTERNATIONAL UNIVERSITY

DHAKA, BANGLADESH JULY 2020

APPROVAL

This Project titled “**KRISHI-BONDHU: “A WEB BASED SYSTEM FOR FARMERS”**”, submitted By MD. ARIFUL ISLAM (162-15-7885) and PRITAM CHANDRA SHIL (162-15-7882) and SARWAR JAHAN SHAJIB (142-15-4045) 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 (BSc) and approved as to its style and contents. The presentation has been held on 8th July 2020.

BOARD OF EXAMINERS



Dr. Syed Akhter Hossain

Chairman

Professor and Head

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Daffodil International University



Dr. Sheak Rashed Haider Noori

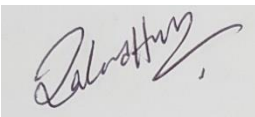
Internal Examiner

Associate professor & Associate Head

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Daffodil International University



Md. Zahid Hasan

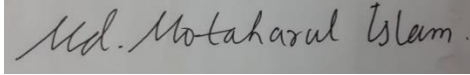
Internal Examiner

Assistant Professor

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Daffodil International University

A rectangular box containing a handwritten signature in black ink. The signature is written in a cursive style and reads "Md. Motaharul Islam".

Dr. Md. Motaharul Islam

External Examiner

Professor

Department of Computer Science and Engineering

United International University

DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Nazmun Nessa Moon, Assistant Professor, Department of CSE, Daffodil International University**. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

Supervised by:



Nazmun Nessa Moon

Assistant Professor

Department of CSE

Daffodil International University

Co-Supervised by:



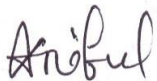
Mr. Gazi Zahirul Islam

Assistant Professor

Department of CSE

Daffodil International University

Submitted By:



Md Ariful Islam

ID: -162-15-7885

Department of CSE

Daffodil International University

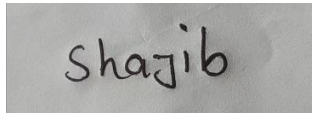


Pritam Chandra Shil

ID: -162-15-7882

Department of CSE

Daffodil International University



Sarwar Jahan Shajib

ID: -142-15-4045

Department of CSE

Daffodil International University

ACKNOWLEDGEMENT

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

We grateful and wish our profound our indebtedness to **Supervisor Nazmun Nessa Moon, Assistant Professor**, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of “Computer Science” to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior draft and correcting them at all stage have made it possible to complete this project.

We would like to express our heartiest gratitude to Prof. Dr. Syed Akhter Hossain, 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

Our project title “KRISHI-BONDHU: A WEB BASED SYSTEM FOR FARMERS” is an agriculture based project which is for farmers. In our system a farmer can get easily all the information about current market price of the crops by simple clicks. This helps will betray no farmer betrayed by anyone. A farmer can easily get the information about future weather by our website. Most interesting thing is easily communicate to nearest agricultural officer via our system. In our system, if a farmer wants then he/she can capture a crops picture and send it to the agriculture officer with detailed information to seeking help. A farmer can easily track the agriculture office location by this application with desired direction with help of google maps. By the application a farmer can get always, notify about all the update crops information.

TABLE OF CONTENTS

CONTENTS	PAGE
Board of Examiners	i
Declaration	iii
Acknowledgements	v
Abstract	vi
List of figure	vii
 CHAPTER	
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	4-8
2.1 Introduction	5
2.2 Related work	5
2.3 Comparative studies	6
2.4 Scope of the problem	7
2.5 Challenges	8
CHAPTER 3: REQUIREMENT SPECIFICATION	09-16
3.1 Business Process Modeling	10
3.2 Requirement Collection and Analysis	12
3.3 Use Case Modeling and Description	13
3.4 Logical Data Model	15
3.5 Design Requirement	16

CHAPTER 4: DESIGN SPECIFICATION	17-23
4.1 Front-end Design	17
4.2 Back-end Design	19
4.3 Interaction Design and UX	21
4.4 Implementation Requirement	22
CHAPTER 5: IMPLEMENTATION AND TESTING	24-30
5.1 Implementation of Database	24
5.2 Implementation of Front-End Design	27
5.3 Implementation of Interaction	28
5.4 Testing Implementation	29
5.5 Test Result and Report	29
CHAPTER 6: CONCLUSION AND FUTURE SCOPE	30
6.1 Discussion and Conclusion	30
6.2 Scope for Further Development	30
REFFERENCES	31
PLAGIARISM	32
APPENDIX	
Appendix A: Project Reflection	
Appendix B: Related Figure	

LIST OF FIGURES

FIGURES	PAGE
Figure 3.1: Business Process Model	10
Figure 3.2: Use Case Model and Description	13
Figure 3.3: Logical Data Model	14
Figure 3.4: Design Requirements	15
Figure 4.1: Front-end Design	17
Figure 4.2: Back-end Design	20
Figure 4.3: Interaction Design Sample	22
Figure 5.1: Implementation of Database	23
Figure 5.2 Implementation of Table	25

CHAPTER 1

INTRODUCTION

1.1 Introduction

Bangladesh is an agricultural based country. The people of our country reliable to agriculture and farming. However, there are so many inferiorities to the way of success in agriculture. Online communications technology has quickly become the world's most common way of transmitting voice, data, and services in the developing world. Through web applications for agricultural and rural development in particular hold significant potential for advancing development in agriculture we could provide the most affordable ways for millions of people to access information, markets, finance, and governance systems in agriculture which was previously unavailable to them. The agricultural and farming industry is in constant need of new products or services that can keep them ahead. By this web application, our farmers will be rigid to cultivation. "KRISHI-BONDHU" is a web based communication system for farmers to agricultural officer. It's not only communication-based website but also information based website. Farmers can communicate to agricultural officer by very easy way. Farmers can get many types of information such as video, audio, blogs etc. They can share their opinions in admin panel .They can communicate to nearest agricultural officer via chat or call. Finally, we can say that, it is a multipurpose serviceable dynamic website.

1.2 Motivation

Without motivation, we cannot achieve anything. There are no goal posts to aim for and no purpose to strive towards. Motivation is an important life skill. The reason it's important is because every person on this earth is unique and has a purpose. To steward our purpose well, we have to be motivated to work towards our goals which helps us dreams become a reality. Not just for individual sake, but the sake of others as well. So, our motivation for our web application is:

- Lack of advice.
- No access to direct buyer.
- Lack of information from govt.
- Lack of thinking about farming future.
- From this application, we can solve this type of problem & we can develop our agriculture site & it will be helpful for every farmer.
- Lack of focus.

Bangladesh is an agricultural country. Though agriculture is the biggest sector of our country but this sector is not properly developed in this modern world. As a result, our farmer cannot get proper instructions to cultivate many crops, foods etc. Farmers cannot communicate to agricultural officer by proper way. This is the biggest problem for agricultural sector and our farmers in Bangladesh. That is why we choose this idea and develop a project for our farmers.

For an application motivation is very much important if we cannot motivate properly then our application will be useless. Because without users we cannot achieve our goal. Our goal is to help the farmer with proper guidelines.

1.3 Objectives

Objective is the main part for the application development. In our application development, we chose several objectives for our project and each objective is very much helpful for the farmer. We are very much hopeful that in the future from our objectives farmers will get very much opportunity. So, our mobile application objective is given below:

1. To help our farmer's for producing different agricultural plants.
2. To get nearest agricultural office.
3. To communicate with agricultural officer.
4. To know about modern agricultural machineries.
5. To know daily weather forecast.
6. To inform the farmers about some agricultural training programs, workshop, seminars.

7. To develop knowledge about proper cultivation.
8. To drop a question about agricultural problems.
9. To give a photo of plant disease.
10. To get many agricultural information.

1.4 Expected Outcome

Expected outcome is the derive that, what will happen if we publish the app and what will be the user benefits from it by long time. We expect in future the expected outcome will be extremely good. So, in our thinking ability we are thinking the expected outcome will be like this. Those are given below:

- People who are educated but jobless they can start farming by saw the success story of various farmer.
- Farmer can contact with govt directly by app by send message and they can also sell their crops to the govt by analyzing the price that was already in app.
- People can easily can get more benefit by using benefit calculator that is in app.
- Farmer can access fast information then it come with the normal way.

We organize our report is as follow-in chapter 2 we will discuss about background of our application. The system how we plan before developed our application will be cover in chapter 2. In chapter 3, we will discuss requirement specification of our project. In this chapter we will requirement analysis of this requirement for implementation of our project. The chapter 4 is about system design specification and how the system will be designed like front end design, back end design etc will be covered here. The chapter 5 will be based on the system implementation and testing. This final chapter 6 will be based on future scope and conclusion.

CHAPTER 2

BACKGROUND

2.1 Introduction

Agriculture is the largest employment sector in Bangladesh. The performance of this sector has an overwhelming impact on major macroeconomic objectives like employment generation, poverty alleviation, human resources development and food security. But there is no commendable progress to this major potentially powerful source of GDP. Agriculture and rural development is in need of some prior foundation what our application going to implement with such a way that every civilian will be beneficial by this. Not only that, by this application they can get desired information, directly communicate with buyers and farmers can reach to other farmer and communicate with each other.

2.2 Related Works

We did several related work for this application. We make comparison between similar type of idea and generate some new idea from existed idea. By related work we find out some weakness in existed application. Which is in not in Bangladesh it's in the foreign country application like India, Netherlands. They build there some site but those website is not that much perfect that much we want.

- **KHISHOK SUBIDA** is an application which made by The Government of India. This Mobile app for the benefit of farmers is a creative initiative of The PM Narendra Modi (Bhartiya Janta Party) which will definitely help the farming community in a long run provided required publicity & sensitization of farmers on the utility of the app is done through mass media by popular regional TV channels, newspapers etc [1].

- The **HALLER FARMERS** website made by in United Kingdom Haller Farmers website shares farming knowledge based on what has been tried and tested at the Haller Training & Demonstration Farm and then implemented successfully on the ground by their communities [2].
- **AGRILAND** is Ireland's largest and fastest growing farming news website app can access all of the content for free on both their website and app, making it easier to stay up-to-date with all the latest agricultural and farming news from Ireland, Northern Ireland, Europe and around the world [3].
- **Farm logs** A free software that share scouting notes, photos, and activities from the field and remotely monitor plant growth and crop performance [4].

2.3 Comparative Studies

We did several comparative studies when we done related work. We learn several thing and also we invented some new idea from comparative study. In comparative study we compare our idea to several ideas which are existed we find out that our idea is unique.so in given below there will be several comparative study that we did:

- **KHISHOK SUBIDA** software that made by Indian Govt is good and very much useful but in our app will be better than this cause on that app there have lack of information and also some important function is missing like there have an option agro advisory on that section the advisory list is small but on our app the advisory list will with be full of information that will take each district agriculture officer details with google map agriculture office location and user can make the call on that app to agriculture officer. This type of never made in world this will be very much useful for Bangladesh farmer.
- In our app there will be an option to calculate future benefit or loss in seasonal crops. There will be calculator which will calculate future benefits. In this world, in farming this type of feature never made by any developer. By this option user will get pre advise and it will be very much beneficial.
- In the world there have news portal app like **agriland** on their farmer just can get news but can't connect to each other But in our app we include a very much interesting function the

name is Facebook of farmer on there they can access news and also can share their experience and on time they can contact to each other by phone call or message and by this function farmer can also call for help to other successful farmers by seeing their experience post and also experienced farmer can help to normal farmer by seeing help post.

- In our app there have an option on that farmer can capture crops image and send it to the nearby agriculture office by clicking send and then the officer will be take necessary action by seeing the crops picture if the crops are in some kinds of diseases then the office will contact to the farmer immediately. The app name we mention in previous that are very much demanding app but on that app this type of option is not available so our app will better than that.
- In our app there have an option on that farmer will get day to day information about crops price and it will update time to time and interesting thing is all division and all district crops price will be there separately so that they can see the crops price situation on all place of Bangladesh.

2.4 Scope of the Problem

By scope of problem we had define previously, what will happen after publish the application. By scope of a problem, we can define what type of problem farmer can solve from this application. We can define scope of a problem by some question it will helpful to understand and our application scope of the problem will be covered by those question. So question is given below:

- On which server's problem is being observed?
- For which types of operations the problem is not occurring?
- On which server's problem is not being observed?
- For which types of operations is the problem occurring?

So, our scope of problem is given below:

- The people who lived in village they feel uneasy to talk face to face with govt. agriculture officer and also afraid to come in the office. So this app will help farmer to communicate with the govt. officer without coming to the office. It will make farmers satisfied.
- In this app by future benefits calculator farmer can get information about future benefits or loss.
- People can easily send crops image to agriculture office to verify about disease.
- There is an option about successes story by this function people can inspire themselves especially new farmer to achieve the goal.
- By Farmer's Facebook there will be farmer community. A farmer from long distance they can communicate with each other by sending message and also can call by phone. This option will help all farmers to getting help and serve help to others.
- A new farmer who don't have good knowledge about crops he can get all information about all kind of crop about how to grow crops properly.
- There will be option, called knowledge about new born hybrid crops. By this app farmer easily can get current news about new hybrid crops and they can easily communicate with the agriculture officer and can achieve the crops.

2.5 Challenges

Challenges of a work give motivated to the admin panel worker. Challenges of work create more opportunity and challenges helps go get the work goal. When we working on a project that time we found few challenges which are related to our project.

- The main challenge is anticipating language barrier the farmer in our country are not educated so full website should be in Bangla.

- The second challenge anticipating is the easy to understand and user friendly interface for farmer.
- The third challenge is promoting the app in rural area.
- The last challenge is network connectivity.

Our challenge is not that much complex day by day when time will pass then we will try to solve out the challenges that challenges we face nowadays.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Model

In this business process model which is in figure 3.1 we declared first the event that means event is starting then will come documentation which information documentation. By those information documentations we will create the application then will have distributed to the farmer and will upload to the marketplace if we think our information is not enough then we will not upload it, we will update the data and will provide relevant information. After completion we will upload then people can download it and use it by several following objectives the we declared before. For use it user must have to be register fast because by registration we will able to see the number of user. User can rate the app if they want that's why in business process model we add rating system if rating is not good then we will again update the data of our app. So those thing we declared by this business process model.

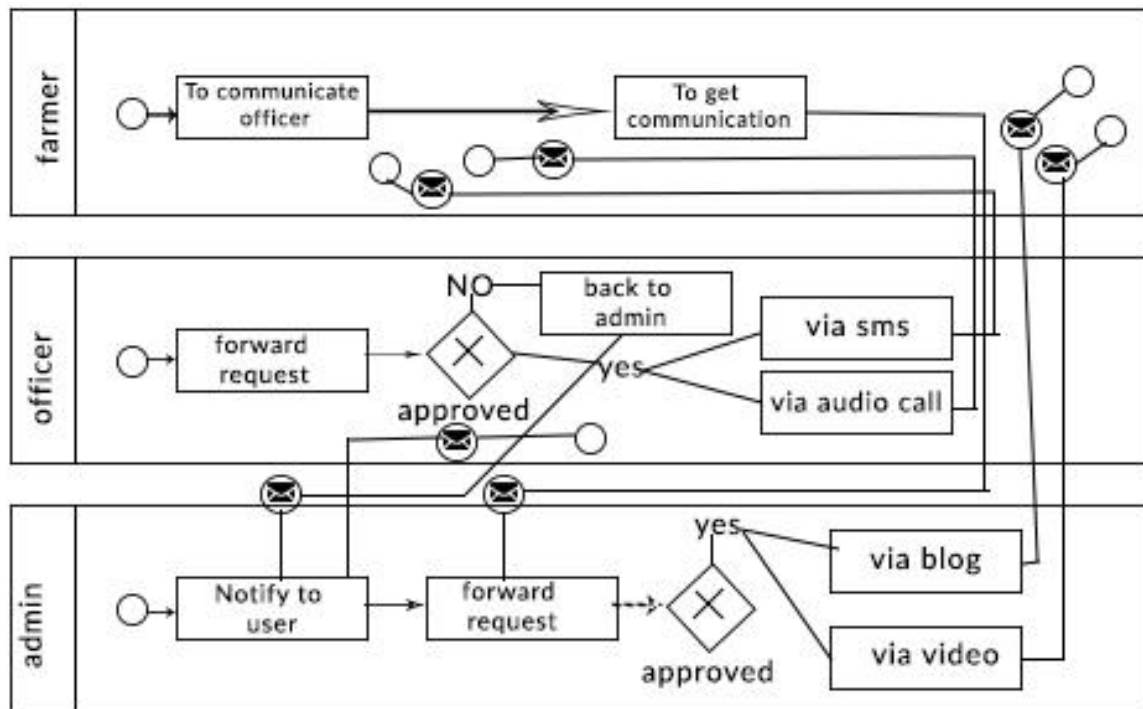


Figure 3.1: Business Process Model

3.2 Requirement Collection and Analysis

Our site requirement is the foundation of our project. The requirement of this site is also guideline for the development of the web application.

Initial Requirement

The aim of the project is to design and build a web application, which will help a farmer in various way.

- This system must function as capable of capturing data with manual interaction.
- This system must deliver real-time market trends. To do this, the system must constantly monitor and retrieve market data from internet.
- This system will make communities which will help to farmer create a network.

- This system will help the farmer to crossover the current problem and the current problem is lack of information to the farmer, this system will ensure the update information system.
- This system will improve the current work process and will turn into a dynamic process by which farmer and agriculture officer can easily communicate with each other from anywhere or from any place.
- The client side application must be capable of getting notification and connected with real time database that they can automatically connected with database.
- This system will have served the client the real time location system, which will dynamically change the situation.

User/admin Requirements

- The user has to registration first then the user able to see all the module which is in the app and get various information which will be very much helpful.
- The admin will monitor the system.so, the system be secure and admin will capture news item and will update it.
- Identify favorable or unfavorable market conditions.
- This application must attempt to predict the future price and also will predict the environment situation on crops seasonal bases by using data mining.
- By register themselves in app the user can give his feedback to the admin and admin can verify it.

Hardware Requirements

Ideally this application is usually for the web based operating system. So, anyone who are using android phone or pc or computer he can use this software. On other side, updating the database may take a considerable amount of time and system resource. So, a dedicated database will be best suited for this task.

Software Requirements:

- A web server will be providing web access to data in a database to the admin and users

- PHPmyAdmin which is the main software to make this system update day to day.
- As a user level they don't need anything without a pc or mobile phone software.

3.3 Use Case Model and Description

In this use case model, we define some methodology in system to identify, clarify and organize system requirement. Use case diagram is the modeling of real world objects and systems. A use case diagram defines four components.

- Boundary, which are defines the system of interest in relation to the world around it.
- Actors, usually individuals involved with the system defined according to their roles.
- Use cases, which are the specific roles played by the actors within and around the system.
- Relationships between and among the actors and the use cases.

In figure 3.2 below, here we define user and admin panel so in this use case diagram, here a user can login the system when the user completed the registration and for login the user have to the put the id and password so, id and password are included through the login. After login this use case define that a user can start the app can show various option like crop information, use information about crops diseases and management, see farmer success story, can use google mapping system ,can use algorithm for calculate future benefits or loss, can send crops image to govt officer, can use krishibondhu facebook and several other function that is in given below in figure 3.2 and in a same way a admin can modify all the information if the admin think those thing are necessary.

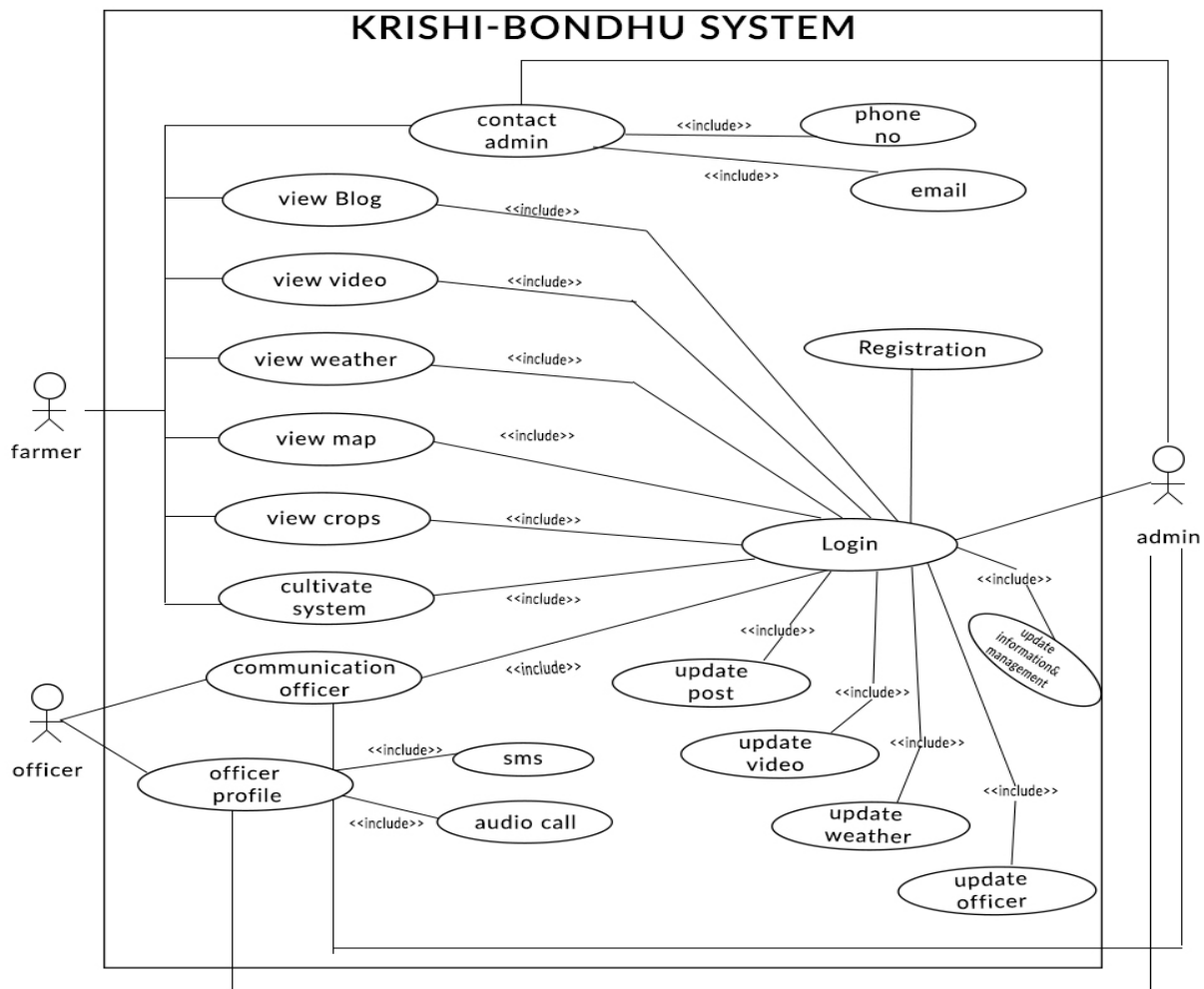


Figure 3.2: Use Case Model and Description

This use case diagram is very much useful to understand the whole process so, in this use case diagram we try to clarify who is dependent who is independent and who is extended and which section is include for make clarify this section clearly.

3.4 Logical Data Model

A logical data model or logical schema is a data model of a specific problem domain expressed independently of a particular database management product or storage technology but in terms of data structures such as relational tables and columns, object-oriented classes. This is as opposed

to a conceptual data model, which describes the semantics of an organization without reference to technology [5]. In given figure 3.3 below, we declared the logical data model.

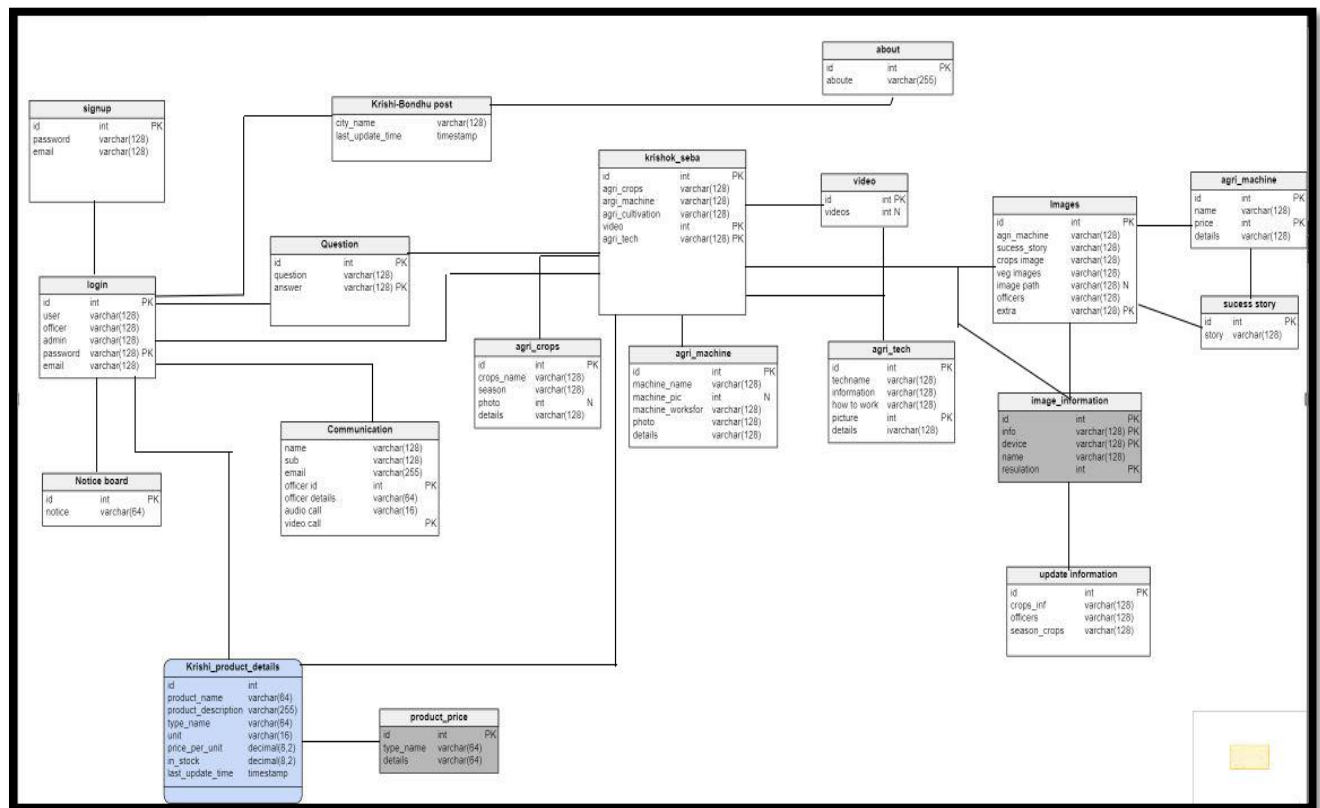


Figure 3.3: Logical Data Model

In this logical data model, we declared various entity by which we declare various relation, which is many to many, one to many, many to one. In figure 3.3, if we see that krishokpost to signup have many to many relationship model by means many people can sign up and many people can use this krishokpost section. Also those like other section that we declared is many to one which means many people can use this section but can't modify it. So this logical data model is for declaring the relation between various section and make understanding this method.

3.5 Design Requirements

Requirement of design are important because they drive other downstream activities including project management, technical development, system testing, and user documentation. poor initial

design requirement cannot lead work in these areas. if requirements are not well understood downstream activities suffer. In figure 3.4 below, here we define the design requirement by this figure 3.4 which is given below everyone can be understand that how we developed our system.

Why Design Requirement is Important for Our System?

- By a proper design requirement, a developer working process increase because for system information or requirement collection is necessary that's why by proper design requirement information and requirement collection can be done properly.
- By proper designing requirement its helps to satisfy system specification.
- By proper designing requirement in our app whenever we face some problem related to requirement then we analyze the process that are in given below in figure 3.4 and by analyzing the requirement we find out some solution.

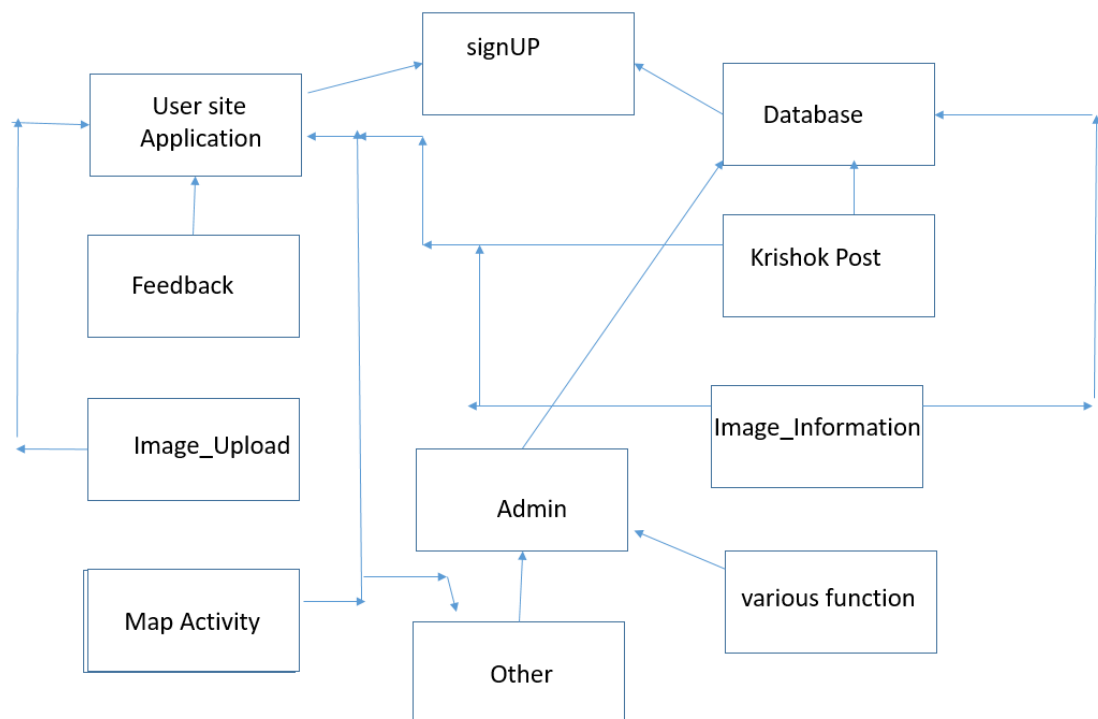


Figure 3.4: Design Requirements

In Figure 3.4 here we define design requirement by which we declared signup, feedback, image_information, admin panel, map activity, image upload, user site application, database those are the requirement for the application and we just design those requirements. By this requirement design we can easily find out what is the requirement to complete the application. By this designing requirement user can get help collect information about the the application.so design requirement is an important thing to application development.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-end Design

Front end defines the interface, user interaction and presentation of information. Front end works on presentation layer. It displays the ways in which the user can interact with our system. Front end is the most important part of web-based application. Because of user can get many idea or information from layout of this website. The objective of designing a layout ensure that when a user open the website they can see the information in a format that is easy to interaction. We use to front end design is psd file, that psd file made by pixel perfect and grid layer. As our design is responsive design, no matter what the screen size we use to run the system. We can also use the material design in this website to make system look like user friendly and dynamic. In given figure 4.1 we show a part of our design:



Figure 4.1: Home Page (up)

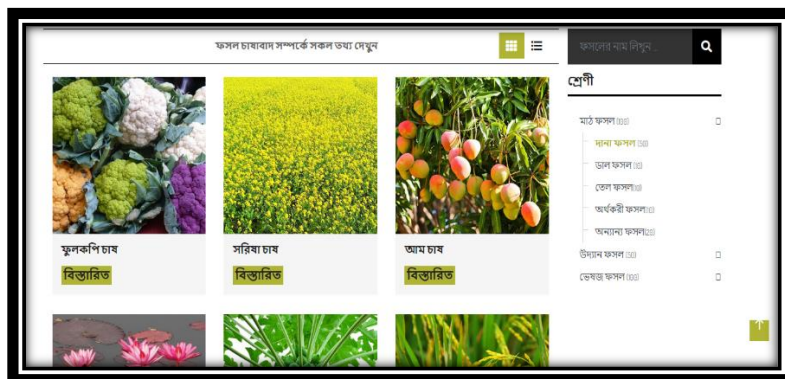


Figure 4.2: Subpage

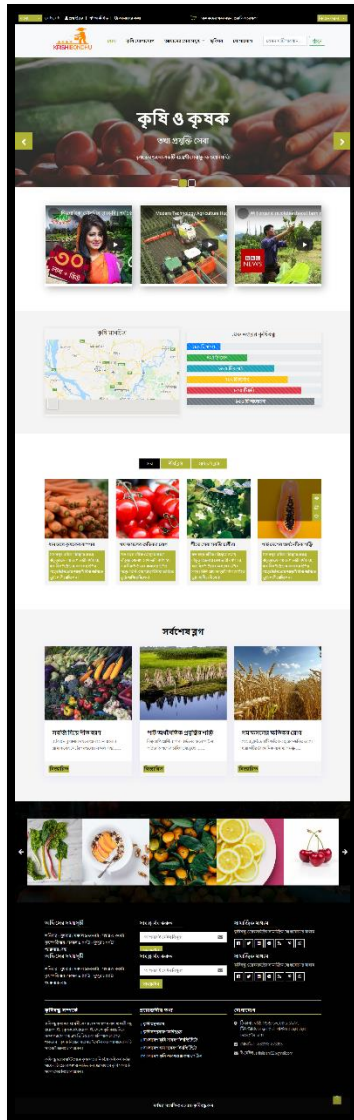


Figure 4.3: home page

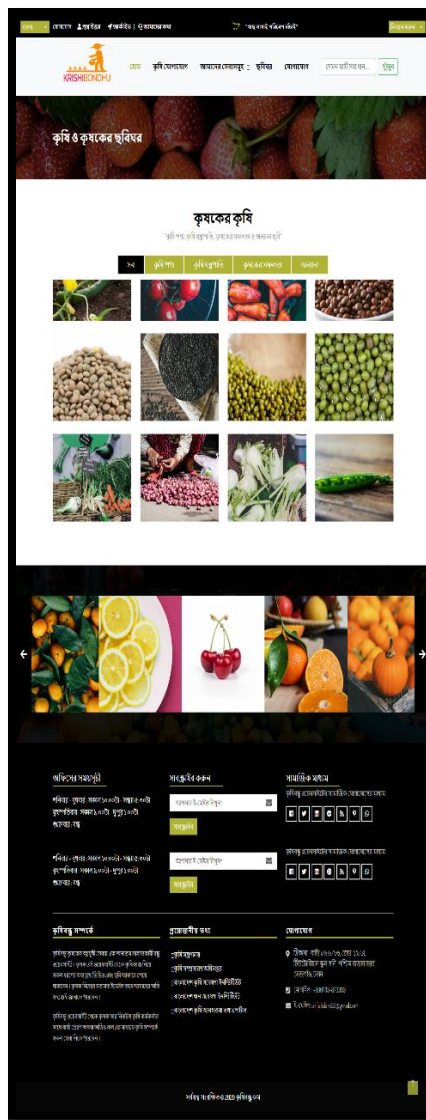


Figure 4.4: sub page

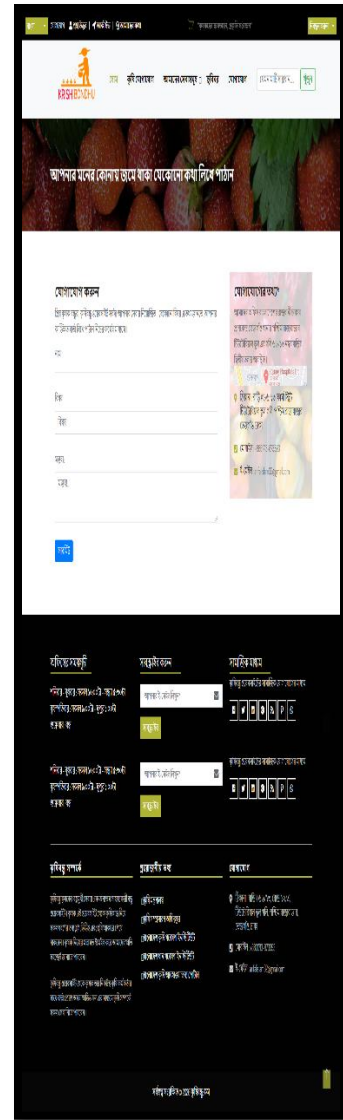


Figure 4.5: sub page

We make the system looking good by using it. We use some vector asset to build some button or build some other section. We create some color value to make the combination and use it in the design. There have several way by those ways we made our system front-end design. In front-end design, we try to make our system responsible, beautiful, user friendly. We make our website by 100% pixel perfect. Because of it can maintain the size of system all devices.

First our system markup by HTML-5 (Hyper Text Markup Language). It can make a row layout for this system.

Second, our system make design by CSS-3 (cascading style sheet). It can build website a new look, which carry many color style, shape, etc.

Finally we can use to Bootstrap-4 for the responsible front-end design. It make system looking good and responsible site. Bootstrap-4 give pre-build design for the system, which is user friendly. There have several way by those ways we made front-end design in our system.

4.2 Back-end Design

The back end is the language that runs a site the user does not see it or directly interact with it as the client side technology, but it is always running in the background. It smoothly delivers functionality and information from the database to the browser. The background is the combination of database and programming language that run on web server. The back end directly interacts with the database via an application. In figure 4.2 below, we define a part of back end design.

Function

- ❖ Database creation, integration, management e.g. MYSQL.
- ❖ The language HTML-5 & CSS-3
- ❖ Backup and restore technology for website files and database.

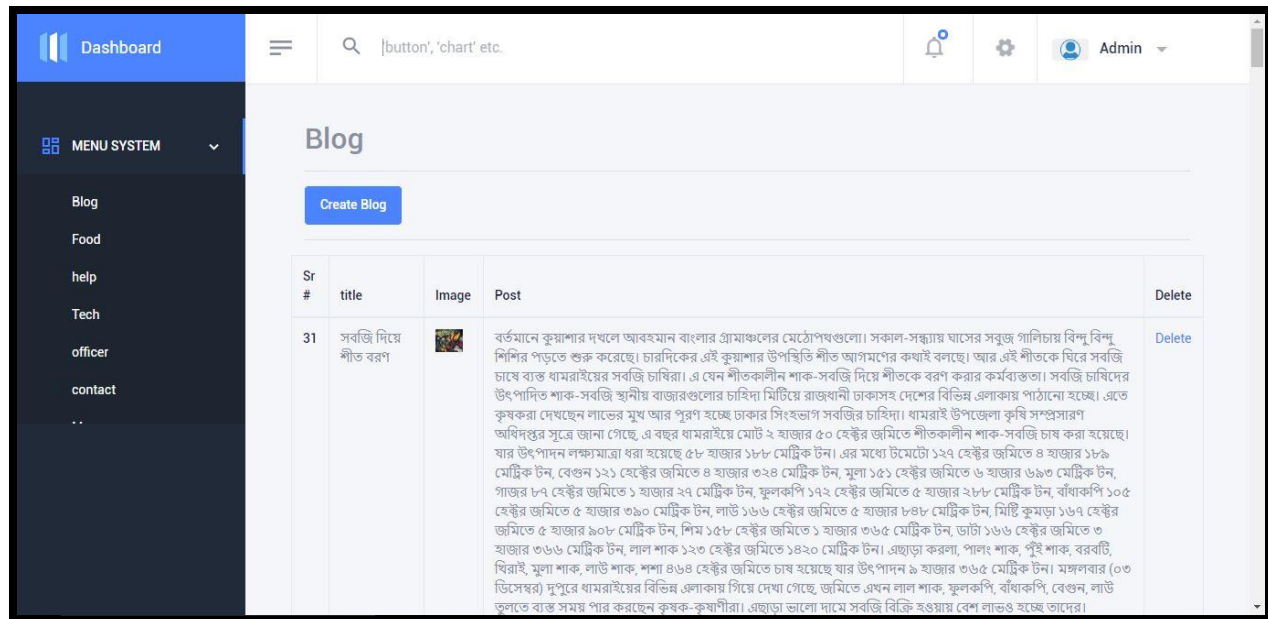


Figure 4.6: Database

We declare several table in database which is not visualize for users and we try to make those Back end design looks simple not make too complex. Image information, images, krishokPost, Messages, user by those tables we make our backend design or we can say we made our database Design. We design those by MySQL query. We implements those design by JavaScript, jQuery Moreover, obviously PHP.

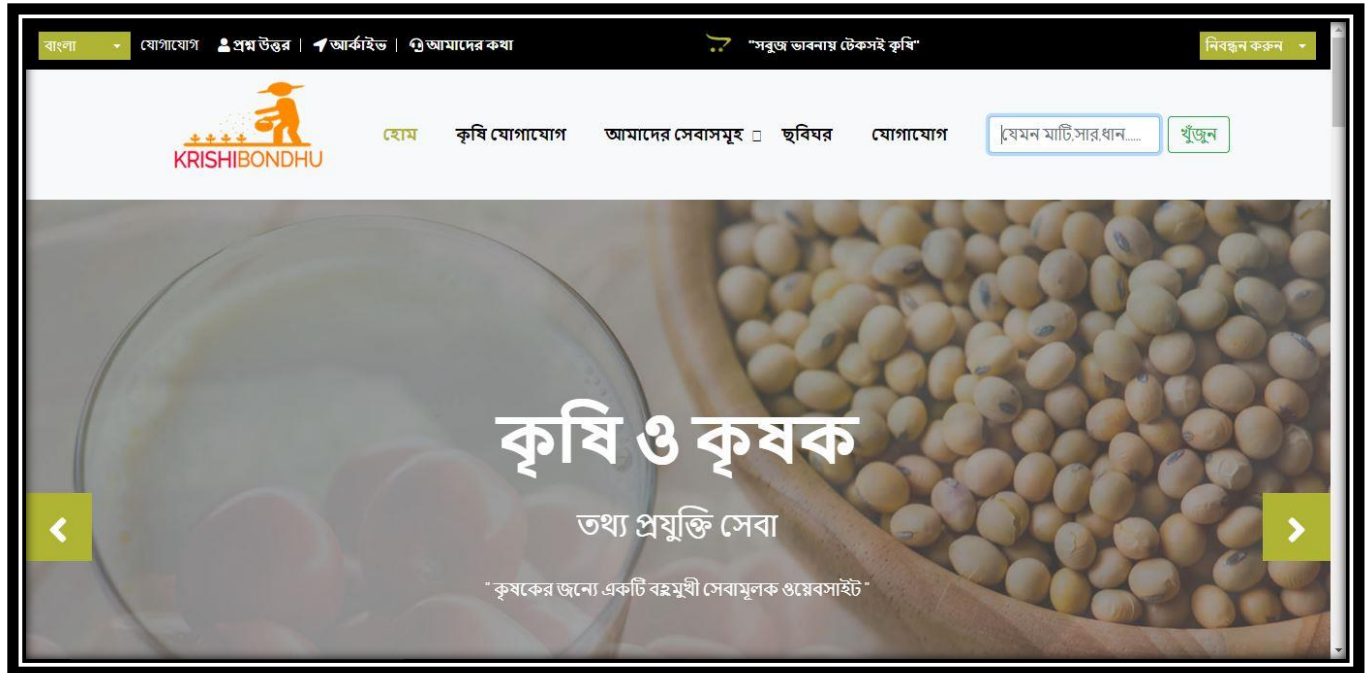


Figure 4.7: Front-end design (ui/ux)

Why We Are Using Interaction Design and UX in Our System?

By proper interaction design user can easily understand the method. By proper interaction design, a user can easily find out the proper section that are in the system. Better interaction design not only helpful for the user it also helpful for the admin, cause good interaction design interact more people to the system. In our system, we try build a proper interaction design, which is more attractive to the user. A user after log in, They can easily find out there desired section by this. We declared several section in our design by which a user can easily find out what they want or what the system suggest to them.

The Process We Use to Design the Interface

There have been several process to design an interface like those are,

- User and task analysis
- Information architecture
- Prototyping
- Usability inception

- Usability testing
- Graphical user interface design
- Software maintained

Before implement the design, we research on user and task analysis after we build a information architecture then we made a prototype after we build up and test the usability inception and finally after completed those method finally we got graphical user interface design then came software maintained. The work we done in difficult but more interesting also.

User Experience Design

User experience design is use for the customer satisfaction in the same way we design the user experience for the satisfying the customer. We use several process that ensure the customer satisfaction.

The Process We Use to Design the Interface

- Visual design
- Navigation design
- Strutting, organization and designing
- Usability
- Accessibility
- Human computer interaction
- Functional specification

Bu using those process we make our ux design by implementing those work we ensure customer satisfaction.

4.4 Implementation Requirements

According to our objective, we formulated many requirements after analyzing and collecting data. Krishok Facebook, nearest place, uploading image and crop problem details, krishi officer contact number, current rate of the market etc. are the requirement implementation. During the

implementation, we check out how the present system work. Then we find out the problem we faced and the way we can solved. The user can get market rate information, nearest krishi office location and direction, can contact with other farmer, and can get information of preventing the crop problem.

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

There are two main types of modern databases. SQL and NoSQL. SQL is more traditional and the best choice in almost all cases. Common SQL implementations include MSSQL, MYSQL, and PostgreSQL. In addition to selecting a database engine, we design our particular database schema. Having reliable and well-organized data is crucial to our long-term success. So, we make sure this is well thought out. In figure 5.1 below, we define how we implement the database.

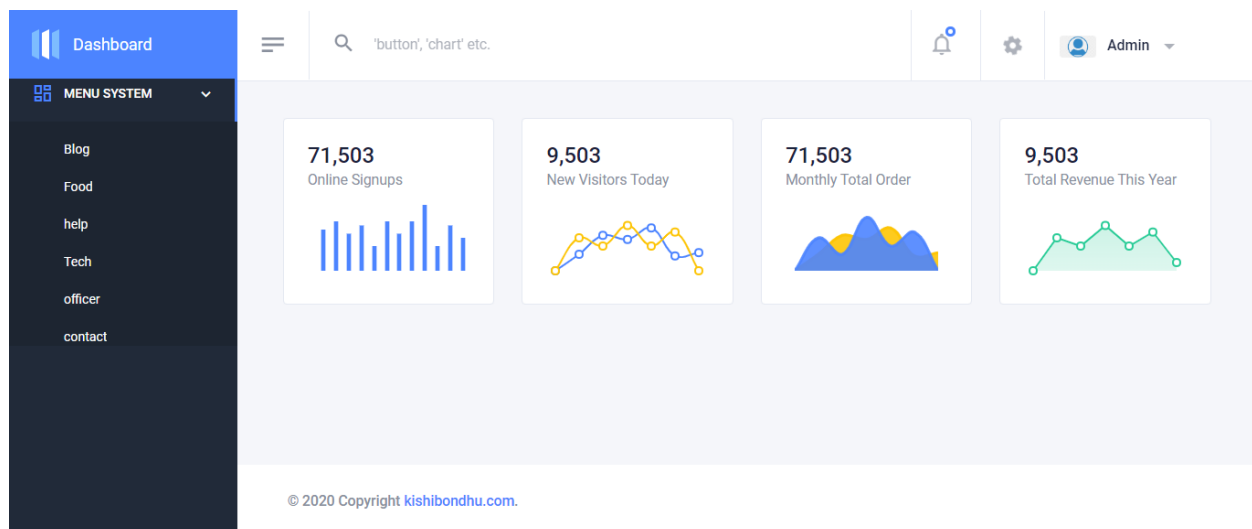


Figure 5.1: Database dashboard

Dashboard

MENU SYSTEM

Blog

Food

help

Tech

officer

contact

Message

APP

'button', 'chart' etc.

Admin

Officer

Add Officer

Sr #	Name	Email	Phone	Zilla	Image	Delete
34	শাঁ আকবর আলী	ariful15-7885@diu.edu.bd	01779049628	শাদারীপুর		Delete
33	খোরশেদ আশম	ariful15-7885@diu.edu.bd	01779049628	ফরিদপুর		Delete
32	মোঃ জালাল উদ্দিন	ariful15-7885@diu.edu.bd	01779049624	আড়াইহাজার থানা		Delete
31	ফারমিদা খাতুন	arifalislam32@gmail.com	01779049624	নরসিংদী সদর		Delete
30	বিশ্ব চন্দ্র বর্মণ	pritam15-7882@diu.edu.bd	01779049627	ইসলামপুর থানা		Delete
29	আব্দুল হক	arifalislam32@gmail.com	01779049626	জামালপুর সদর		Delete
28	মোঃ শহিদুল ইসলাম	sarwar4045@diu.edu.bd	01779049628	মাধবপুর থানা		Delete
27	রুহুল আমিন খান	pritam15-7882@diu.edu.bd	01779049624	কাপ্তাই থানা		Delete
26	লজ্জত দাস	arifalislam32@gmail.com	01779049627	শাহাবাদ থানা		Delete
25	খোরশেদ আশম	ariful15-7885@diu.edu.bd	01779049624	কলাবাগাল থানা		Delete
23	মনসুর আলম	arifalislam32@gmail.com	01779049628	নারায়ণগঞ্জ সদর		Delete
22	শাঁ আকবর আলী	arifalislam32@gmail.com	01779049626	হবিগঞ্জ সদর		Delete

© 2020 Copyright kishibondhu.com.

Figure 5.2: Database officer

Installation Requirement

1. Web Server
2. XAMPP
3. PHP
4. My SQL
5. HTML_5
6. CSS_3
7. Bootstrap_4

Installing and verifying “web server” and “MySQL Database”

First, we have to make connect through to the database, we did so and verify it by secure connection. Point is how I make this connection so, here is the ans, first of all we make our server login by our server c panel address which is **“krishi-bondhu-sw.com:2083”** and give the server password and username

In login form and make sign in after that sign in we found our directory so we go to the **“php myadmin”** section and create the database after creating the database we go back to the directory and went to the section file manager/public_html and pup a php file which we named as **“connection.php”**.

By this php file we make the connection to the database. For connection in php file we declared a MySQL Connection method and give the database name and password of our database. By this php make the secure connection.

Creating Main Tables in Database

After making database connection by **“connection.php”** “we create different tables in database like as registration, krishiBondhuPost, image information, image feedback, price update and various other, after creating the table we work with the table by php code and java code also using the retrofit. In figure 5.2 below, we define how we create the table in database.

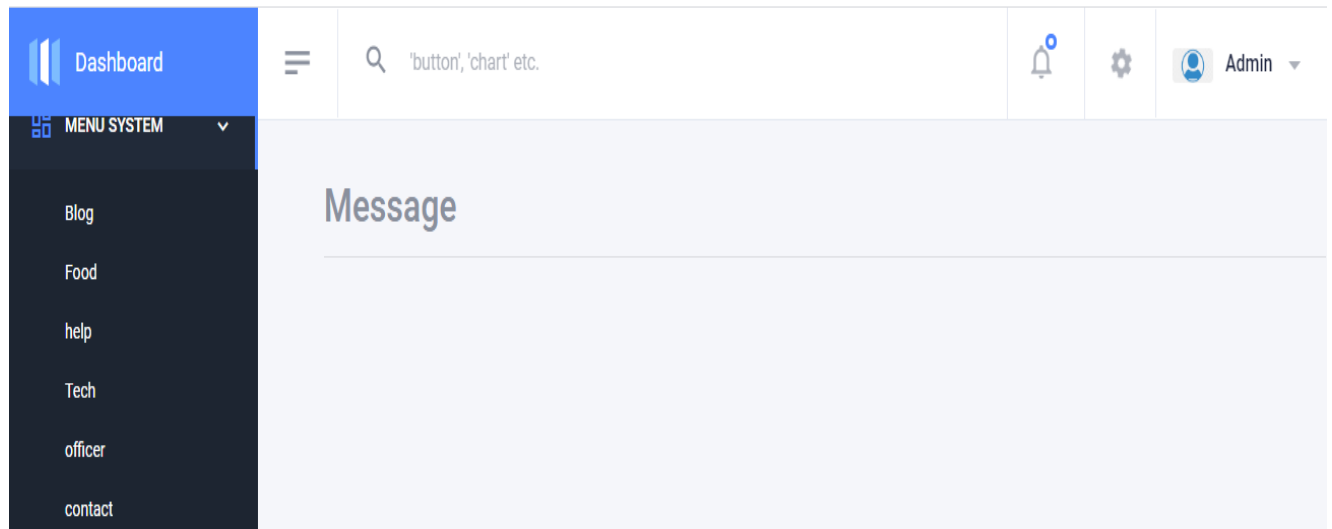


Figure 5.3: Table of Database

Design Tools: HTML-5, CSS-3, BOOTSTRAP-4.

Development Tools: JavaScript, PHP, JQuery, Ajax

Database Tools: MySQL.

Database Name: Krishibondhu

Database Table Name: Blog, Helping, Technology, Farming, Contacts, Officers, messages, users.

Website: farmer based

Work type: Any upazilla Agriculture officer one to one contact. Message, voice phone etc.

To read helping blog, technology information, agriculture science, etc.

Fully website user friendly, responsive, authentication.

There are two type develop mood: frontend, backend.

Frontend all for everyone and backend just for admin & user.

5.2 Implementation of Front-end Design

Implementation of front-end design mainly based on the html file. But beside that we use several things to make implement it. We use html code to link the front and back end and also use various function.

Implementation of Front End Design Is Based On Various Thing for Implement That Front End Design We Needed to Apply:

- HTML5 code
- Design html file
- Use JavaScript
- Add CSS3
- Use php code
- Bootstrap4
- Location based permission

And also various thing by those thing we make our front end design work and also make attractive. By html-5 file we design the input category after that by linking java code with the html file we make thing work. Here not only the html code was needed, sometimes php and retrofit play a vital role in section like image feedback. Here by retrofit we send the image to the database directly. Sometimes we add some dependencies in gradle because sometimes without those dependencies system not work.

5.3 Implementation of Interactions

Once we have defined the general architecture for interaction objects then we include some unique feature to interact our system. For Interaction our system we use javascript code by link html code with the html file we make user interaction to the database. we make various faction in our website and with ease of function we link php and html code to implementation interaction.

For Implementation of Interactions We Use Those Process

- make connection between html code with php code.
- make html file in proper weight.
- fixed screen size for all the device.
- Using retrofit for sending image or video file.
- Using the php code for interaction with html button.
- Create database for interaction implementation.

Implementation is very much important to a web development.

5.4 Testing Implementation

Implementation is the process of putting an action for the formulated plan. Before we implement, the plan should have been completed and our objectives should clear. There are many tools that can be used for testing web applications. Some are official like Junit, Monkey and some are third party tools that can be used to test web applications. we use unit for testing [6].

For testing implantation, we use those process,

- testing implementation by some user
- Getting feedback
- Test by various software
- junit testing

By implementing those process, we completed our testing process user gave us very much good feedback about this system. Hope user will have satisfied.

5.5 Test Results and Reports

Test report is needed to reflect testing results in a formal way, which gives an opportunity to estimate result quickly. It is a document that records data obtained from an evaluation experiment in an organization manner. Describe the environmental or operating condition, and shows the comparison of test result with objectives, we tested our system 100 time and its evaluated 95 times right data in respect of predicting the trade.so our application testing result is 95%.

CHAPTER 6

CONCLUSION AND FUTURE SCOPES

6.1 Discussion and Conclusion

It was a wonder and a learning experience for us while working on this project. This project took us through a various phase of project development. We developed a website for Bangladesh farmer, which is called as KRISHI-BONDHU. This type of website only did not made before in this much dynamically. People was tried to make this type of website but those website work just manually and those type of website did not have this much function that we have. This website will improve awareness among the farmer and we think our website will make some unique steps in future, which will make the crops productivity increase. This website will create big communities among the farmer in future. We learn and gain various new development technologies while developing our project. We are very thankful to our supervisor who help us to build up this project.

6.2 Scope for Further Developments

Actually, there will be few further developments. If possible then we can build our further development with something new. Further development is important thing because, a system improved day by day not just in one day. In future, we will try to add new features as well as much Improvement. These are some features listed below for future development:

1. An Embedded based project with Arduino
2. Improve of application security

REFERENCE

- [1] Krishi Batayon, <http://krishi.gov.bd/>, last accessed on 12th may,2020
- [2] Kiosk suvida, <https://gowithfloat.com>, last accessed on 3rd may, 2020.
- [3] Agriland, <http://www.agriland.ie/>, last accessed on 3rd June, 2020.
- [4] krishi info service, <http://www.ais.gov.bd/>, last accessed on 3rd march, 2020.
- [5] Logical data model, https://en.wikipedia.org/wiki/Logical_data_model, last accessed on 20th march, 2020.
- [6] Testing implementation, https://www.tutorialspoint.com/android/android_testing.htm, last accessed on 4th April, 2020.

PLAGIARISM

krishi

ORIGINALITY REPORT

15%

SIMILARITY INDEX

15%

INTERNET SOURCES

3%

PUBLICATIONS

%

STUDENT PAPERS

PRIMARY SOURCES

1

dspace.daffodilvarsity.edu.bd:8080

Internet Source

3%

2

steemit.com

Internet Source

1%

3

en.wikipedia.org

Internet Source

1%

4

thebhigroup.com

Internet Source

1%

5

www.infm.ulst.ac.uk

Internet Source

1%

6

www.slideshare.net

Internet Source

1%

7

siteresources.worldbank.org

Internet Source

1%

8

www.agriland.ie

Internet Source

1%

9

strongqa.com

Internet Source

1%

10	secure.mygov.in Internet Source	1%
11	sce2.umkc.edu Internet Source	1%
12	androidideas.com Internet Source	1%
13	kissflow.com Internet Source	1%
14	haller.org.uk Internet Source	<1%
15	www.refactr.it Internet Source	<1%
16	www.agrotechnomarket.com Internet Source	<1%
17	Gazi Zahirul Islam, Isrut Jahan Zinnia, Md. Fokhray Hossain, Md. Riazur Rahman, Aman Ullah Juman, Al Nahian Bin Emran. "Implementation of an efficient web-based movie ticket purchasing system in the context of Bangladesh", Indonesian Journal of Electrical Engineering and Computer Science, 2020 Publication	<1%
18	Md Fuad Hasan, Mohammad Mahbubul Haque, Mahbubur Rahman Khan, Raihana Ismat Ruhi, Amitabha Charkabarty. "Implementation of	<1%