

**BD FERTILIZER DEALERSHIP**

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

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**DAFFODIL INTERNATIONAL UNIVERSITY**

**DHAKA, BANGLADESH**

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## **APPROVAL**

This Project titled “**BD FERTILIZER DEALERSHIP**”, submitted by Md. Abdus Sobhan, ID No: 141-15-3364, Md. Naim Akanda, ID No: 141-15-3109 and Golam Sony, ID No: 141-15-3300 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on May 5, 2018.

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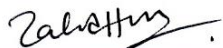
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We hereby declare that, this project has been done by us under the supervision of **Md Zahid Hasan, Assistant Professor**, Department of CSE, Daffodil International University. We also declare that neither this project nor any part of this project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

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## ABSTRACT

This project is on “**BD FERTILIZER DEALERSHIP**” is usually for all the people especially for our rural area farmers. In this project, we have use district level all dealers’ information and our farmers can get easily inform about fertilizers and can share their problem based on agriculture. A database is created require data as like as product name, product id, product category and dealers license number, phone number, name, address, image etc. are stored in the database. We got used HTML5/XHTML, CSS3, Java Script, Primefaces, JavaServer faces (jsf), spring framework, Apache Tomcat server, and MySQL has two categories: farmers and dealers. Others are admin panel and advisor panel. The user end farmers get information about fertilizers and dealers without login and they can post their agriculture-related problem for help. Another user dealers end to try to reach farmers by post their ads and information. An admin can also see the post and he/she can approve or reject the post and update profile request which is sent by dealers. Other advisory panel can advise users, through comments, who have posted for help. The aim of our web application is to create helpful information for our users in their daily life.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

Bangladesh is a land of agriculture. In our country about 80 percent are farmers. Our farmers are the main holder/ driver of our national economy. For this perspective we working on our project to help our farmers. The unscrupulous syndicate members are buying fertilizer unlawfully. Political unrest like hartal, various natural fatality obstruct supply to fertilizers to the farmers. As a result, the fertilizer crisis in the fertilizer market and the price of fertilizers are rising. In this project, we provide all information about the dealers, location of their business organization, quantity with a cost of fertilizer. This application is being developed for use by everyone with a general and self-evident graphical user interface (GUI). This is the application that can be used by the public to know about fertilizer and help rural area farmers share their agriculture problem with the advisor. The user can easily know buy, sell fertilizer by our web application from any area of Bangladesh. The users must be log in to post their ad, contact information, and fertilizer price. The main intention is to help our farmers all over the country in districts level. The proposed system is very efficient and reliable for the users. “BD Fertilizer Dealership” system is a helping system by which any users can use this application from anywhere in our country, these system contains:

- Dealer information in a database.
- User full name, mobile number, and password.
- Dealer license number.
- Fertilizer category with information.

### 1.2 Motivation

Our project is the web application that has established a relationship between farmers and fertilizer dealers. This is very workable and secure requirement application for fertilizer dealers and farmers in our country. No other organization except the Bangladesh Fertilizer Association (BFA) came forward to work with farmers and fertilizer traders. But the BFA

website is very simple and not informative. We create our application “BD FERLIZER DEALERSHIP” ensure dynamically, reliable and easy to access through internet. Our website has been made in English as well as Bengali for the benefit of the farmers.

“BD fertilizer Dealership” accessible for both computer and mobile. This application responsive to mobile. This project contains for both computer and mobile

- Division, District, and Thana level dealer’s information.
- Dealers license number.
- Fertilizers category with information.
- Post dealer’s ads.
- Post farmer’s agriculture problem.

### **1.3 Objective**

Objective of web based “Bd Fertilizer Dealership” application are given below

- Prepare a database of a dealers
- Prepare a database of an admin panel
- Prepare a database of an advisor panel
- Prepare a database of product
- Help rural area farmers with information
- Post dealer’s ads
- Post farmer agriculture problem
- Security
- Reliability
- Cost

Now we will discuss the objective in briefly.

- **Prepare a database of a dealers**

In this database dealers license number, phone number, full name, address, user id, password, image etc. are stored. When dealers post their product ads, their contact information will show to the users and the buyers can easily contact with them.

- **Prepare a database of an admin panel**

An admin panel has all right to maintain the application setting. If necessary, he/she can remove a user, authorize the post, delete the post, and see all types of posts. And an admin will decide who will be the advisor.

- **Prepare a database of an advisor panel**

An advisor panel will help those farmers who want help with agricultural issues. They help farmers through comments.

- **Prepare a database of product**

This database provides detailed information about all types of products. The product category, name and price will all be given here.

- **Security**

We have given most priority to securities among our other goals. We have used in our web application, Java language which the world's most secure languages. We've used the Spring Framework, which makes sure our application security better. This security will help us to keep secure our database.

- **Reliability**

When a website is created, it is always important to keep in mind how much reliable it is to the user. If our application is old, not secure, then people will not trust the application. So we have created our application in such a way that the user can trust. By making website in Bangla, farmers can easily understand.

#### **1.4 Expected Outcome**

There are two types of expected outcomes in our "BD fertilizer card dealership" system

- Provide maximum help to farmers and guaranteed fertilizer.
- Build better relationship between farmers and fertilizer dealers.

#### **1.5 Report Layout**

We have composed the whole project into six chapters. A lesson of five chapters is summarized in the layout. In the first chapter we discussed about the introduction and motivation of our "BD Fertilizer Dealership" system. Then we discussed about our system objectives and the expected outcome. The second chapter discusses main discussions about the conduct of dealers and farmers and the system's problems and challenges. In the third chapter in our project, we focused our project essential to the users. We discussed here what excess of software and service will be used in our project. We also mentioned here logical data model and what kind of design is required. In chapter four we discuss front and back end design and also implementation. It's exposed to our project details flow diagram, and initiative through applied details. We have performed testing here with other existing systems. Within chapter five we have done the database implementation, implementation of interaction and testing of the project work. In chapter six, we discussed our project conclusions and future scope that will help our farmers to make a widespread role from the production of crops.

## **CHAPTER 2**

### **BACKGROUND**

#### **2.1 Introduction**

For Web Developing "BD Fertilizer Dealership" system, we have collected all the dealer data at the district level who have a license and we have tried to gain knowledge about software and hardware to implement our project which is needed for us. Our application includes dealer's information, dealer's ads, fertilizer information, advice message for agriculture which get information to support our farmer for their own benefit. We have completed the project keeping in mind to support the farmers of our country. The main goal of our project is to ensure the fair prices of fertilizers and get fertilizers in the marginal farmers of our country. So that they can fill Bangladesh with grains. And we create our web application "BD Fertilizer Dealership" system effectively.

#### **2.2 Related Works**

There have been no related systems or application have been proposed to solve the problem of organized for our marginal farmer through an online like "BD Fertilizer Dealership". These systems with the goal of implementing fertilizer dealers and our country farmer that employ the accessibility of the Internet, because of hopes increasing the production of our farmers. Some system began by outlining the dealer's information only that not enough for our farmer. For example, Bangladesh Fertilizer Association (BFA) works only for our country dealers. The vision of the Association is to protect, develop, support and promote all measures and steps towards open/free competitive marketing, trade and manufacture of all fertilizers. This system is not dynamic and not so informative for our farmer. Understanding the importance of this aspect, we tried to help the farmers through our application. So long all related activities with fertilizers are dealt with our system; it plays key role of federation in agricultural sector. The major objectives of the project were to obtain yield responses based on advised our farmer about their any agriculture problem and efficiency of different fertilizers along with their methods of application. Information

generated was disseminated to the farmers, dealers, distributors and merchants to improve fertilizer use efficiency as well as to increase crop yields for ensuring food security.

### 2.3 Comparative Studies

- **Why we thinking**

In present, today time technology people cannot want to go outside without any reason they love doing their work in online very easily. Due to political unrest and natural disasters in our country, many farmers do not get the fertilizer as time goes on. Due to the syndicate of the dealers, many farmers do not get fertilizer when their crops have to be harvested. For this reason, our system will work to give fertilizer to our farmers at the right price in time. It was a very difficult task for our farmer to get fertilizer during the time of natural disaster and political crisis. So we are developing this kind of user helping application so we can organize a conduct free, take less time for a user, rampage free and main goal is to help our farmer.

- **How it helps us**

The main intention is to help our farmers all over the country in districts level. Due to political unrest and natural disasters in our country, many farmers do not get the fertilizer as time goes on. Due to the syndicate of the dealers, many farmers do not get fertilizer when their crops have to be harvested. For this reason, our system will work to give fertilizer to our farmers at the right price in time.

Table 2.1: Difference between present and past system

<b>Present</b>	<b>Past</b>
Easy going to procedure for illiterate People.	Comparatively difficult for illiterate People.
Information translate in Bangla.	Application information not translate in Bangla before.

This system is more digital.	This system is not more digital from current system.
User friendly UI.	Not much more user friendly.
Bangladeshi farmers who are want to buy fertilizer and can get information.	This system is not allowed.

## 2.4 Scope of the problem

- **Social and economic benefit**

All farmers and agricultural experts will agree that our system will help in the development of social and economic growth. The most effective way for the marginal farmer to communicate and provide feedback to the dealers and the advisor who give agriculture information. In addition to the agriculture benefit, order compost from the dealers has other positive effects including that help from advisor are more likely to be agriculture informed, to dealers in their communities and to contact local dealer's officials on important issues. If using our helping application, it will be the benefit for social and economic both, if we thinking a create relationship between dealers and farmers this project need to so many farmers and dealers.

- **Time consuming**

Using this application farmer are able to save their time because they don't need go to local traders for get fertilizer. Dealers or trades owner will also save their time and earn a lot of money in a short time because of they need so many times to sale many kind of fertilizer for any people and it will be not an enormous task for the another dealer. In this application, we calculate every sell and buy information, automatically, so saving their time.



- **Any time Anywhere & Any device**

We using this application any time anywhere & any device. Suppose a farmer suddenly need for very important fertilizer but he does not have any fertilizers or more prices around him, then he can get information and prices from other dealers through his smart device. Farmers can buy fertilizer and dealers can post their ads. And we cannot have fixed any device for voting you can use any device to complete your vote. If dealers using Desktop or laptop just using a phone number or trade license login into dashboard page but if any dealers just edit easily by his user name and password are simple. And by using mobile phone it is the same process. But for farmer it is so easy, no requirement needed.

- **Data Protection**

In many applications cannot produce protection of their database information but we are trying our best to protect our data. We know that java is a secured language and we also used spring security for more security. Our data will be encrypted by md5 hascode when user do signup.

So not only admin but also any one cannot see his/her password. Password will be totally secured and we already know that without password we cannot login. Sometimes we using password our very personal thing or a slang word or more than 20-30% people using same password everywhere because it will be far easy remember single password for single mail or Facebook etc.

- **Customer life time values**

If a customer creates an account in this application, they can buy or sell life time in this application. So this is the one of the important advantage of this application. They don't need to view another application the upgrade version of this application will be automatically added.

- **Security Issue**

Security is the major issue in every web application now a day. For this purpose, we maintain strict security in our web application in every steps both inside and outside. For Customers security, we take every dealers address and dealer license no for secure

deals between dealers and customers. Without Fill up their proper profile no one can't post their ads. To stay save from hackers hacking, we use most secure language. So Dealers information will be stored safely.

- **Needs for the new system**

This is the first time online web application for farmers and dealers. By this application, farmers can get any information and can also buy fertilizer easily. Dealers can easily sell their fertilizer.

The buyer and seller can contact both of them easily. The farmer can post their problem of their grain and the adviser can give their solution based on the problem. We hope this new system will help our farmer.

- **Planned approach toward working**

The working in the organization will be well planned and organized. The data will be stored correctly in data stores, which will be helps in improvement as well as its storage.

- **Accuracy**

In the proposed System the level of accuracy is higher. All function would be done accurately and it ensures that whatever information is coming from anywhere is accurate. Especially we confirm the Dealers information, user information, product information very accurately.

- **Reliability**

The reliability of the proposed application will be high due to the above mentioned reasons. The reasoned for increased reliability of the application is that now would be proper storage of information.

- **No Redundancy**

In our application we ensure that no information will repeated anywhere, in storage. These would be confirming use of storage space and consistency in the data stored and make sure of our database.

- **Immediate storage of information**

In our application no problem to store the largest amount of information. We avoid any kind of problem.

- **Easy to operate**

Our web application is easy to perform although it can't be developed within a short period of time but it possible to fit in the limited budget of the user or customer. Any person can be used our web application.

- **About this Project**

- This is a simple, safe and secure method that take minimum period of time.
- The admin panel will maintain this application.
- User can view ads or information without login.
- If a user / dealers can post ads must need to login.
- All users task can be updated or delete by admin.
- After complete the post add dealers/user can download document.
- This application will be used by mobile phone.

## **2.5 Challenges**

- To find out algorithm for processing Data.
- To collect data.
- Ensure security for the users/dealers.
- Ensure that a user can't sign up without unique mobile no.
- Ensure that dealers can't upload ads without their profile fill up.
- Ensure that dealers cannot upload ads without post ad form fill up.

# CHAPTER 3

## REQUIREMENTS SPECIFICATION

### 3.1 Business Process Modeling

This project is not only providing a clear view about the software that has been developed but also helps to achieve the goal. In this project when user need he or she will be update easily in his/her system or software and in this project also useful for the developers.

Figure 3.1 is the BPM of our application in this BPM detail description of our application. An admin can add, delete, update, search a dealer details and admin information and admin can also view dealer's ads, reset unnecessary ads. A user or dealers cannot sing up his or her profile directly. He or she send request to the admin and admin can approve or rejected his or her information. And a user or dealers provide his or her valuable info for an open a new account.

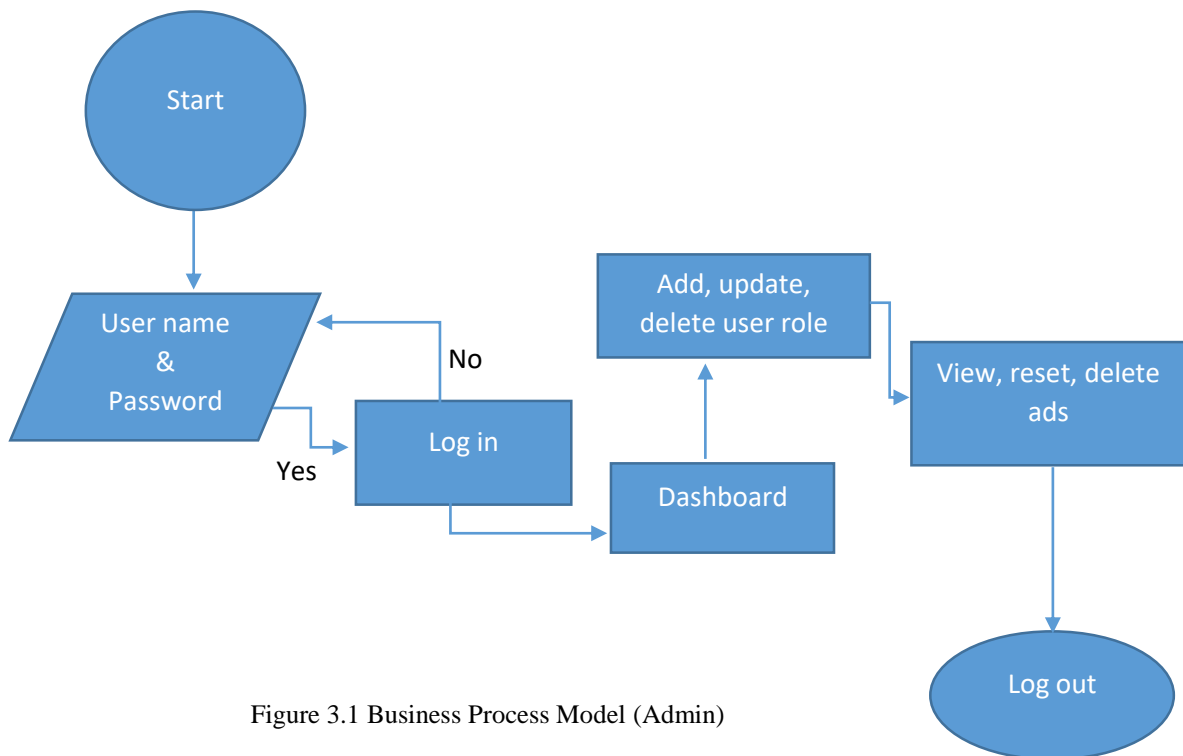


Figure 3.1 Business Process Model (Admin)

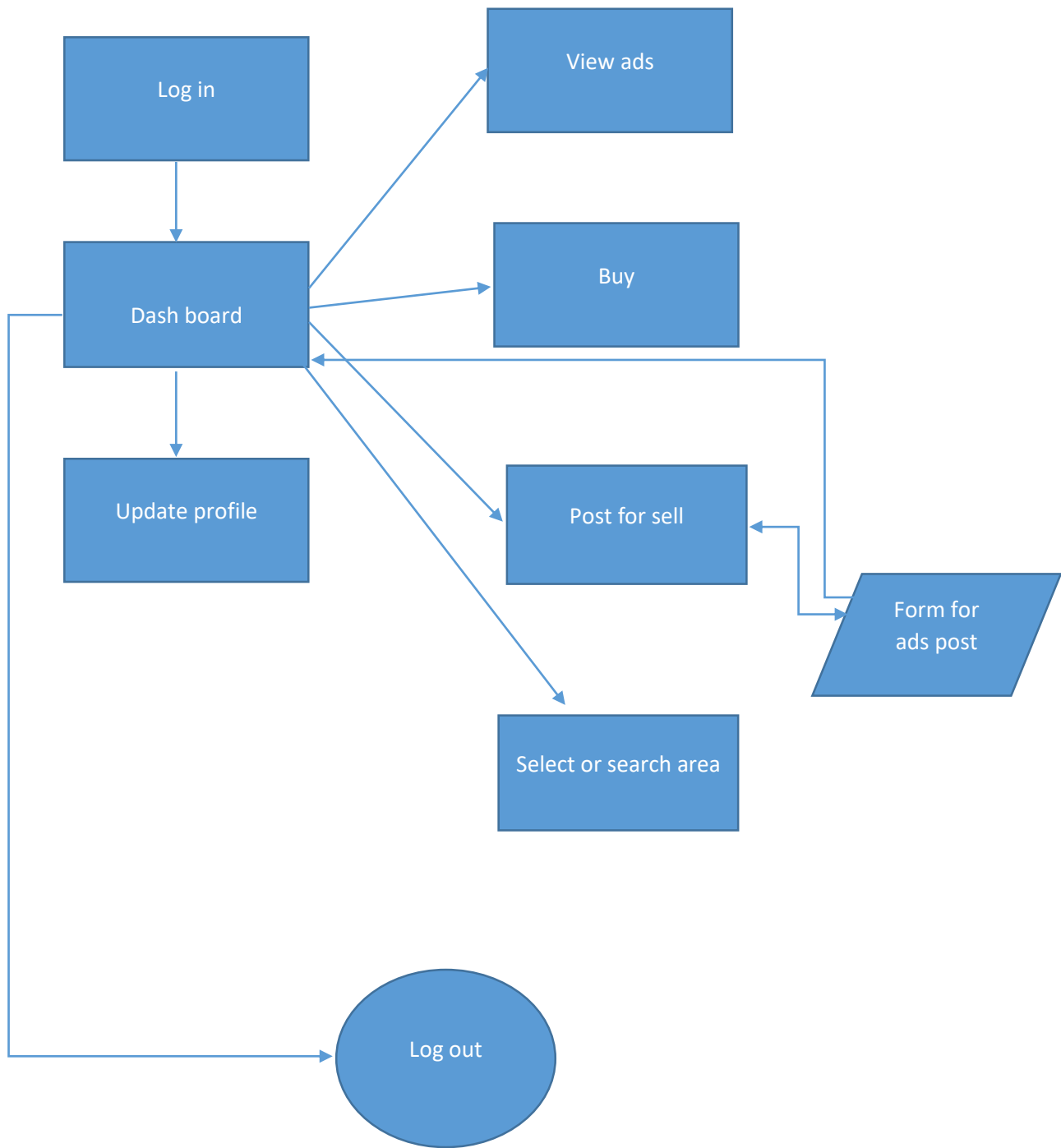


Figure 3.2 Business Process Modeling (User)

- The SDLC Waterfall Model:

Small and medium size software or application is usually divided into six categories that is equivalent with each other in a top-down approach called as waterfall.

The very first stage of the waterfall model is called planning stage it is a stage which is more important stage of any kind of software and application. In this stage analytical and important task is to clearly mention about the goal of the software or application.

The Next stage is System design the output of the requirements stage which is authorized requirements documentation of application. The Design elements consist of business procedure diagrams (BPM), pseudo code and entity relationships (ER) diagram. This stage is produce detail description about the software or application and each element is related to a specific requirement of those software or application. And design of the software and application will be done under this stage.

Third stage is the Implementation stage when requirement gathering and design stage are complete then use this stage because when they gathering information and design are complete they need to implement their ideas and design. After implementation stage will be complete they need to test their application or software.

The fourth stage is very important stage is testing stage. In stage this application is also going through different kind of test cases to check the validity, completeness, truth and hence enables to achieve the goal regarding our application. After testing any application design, they need to develop those application and this is fifth stage.

Last stage, maintenance stage is the installation and acceptance stage. If there will any problem found of the software they check one stage after one stage and easily find out the problem and need not rebuild the software and application.

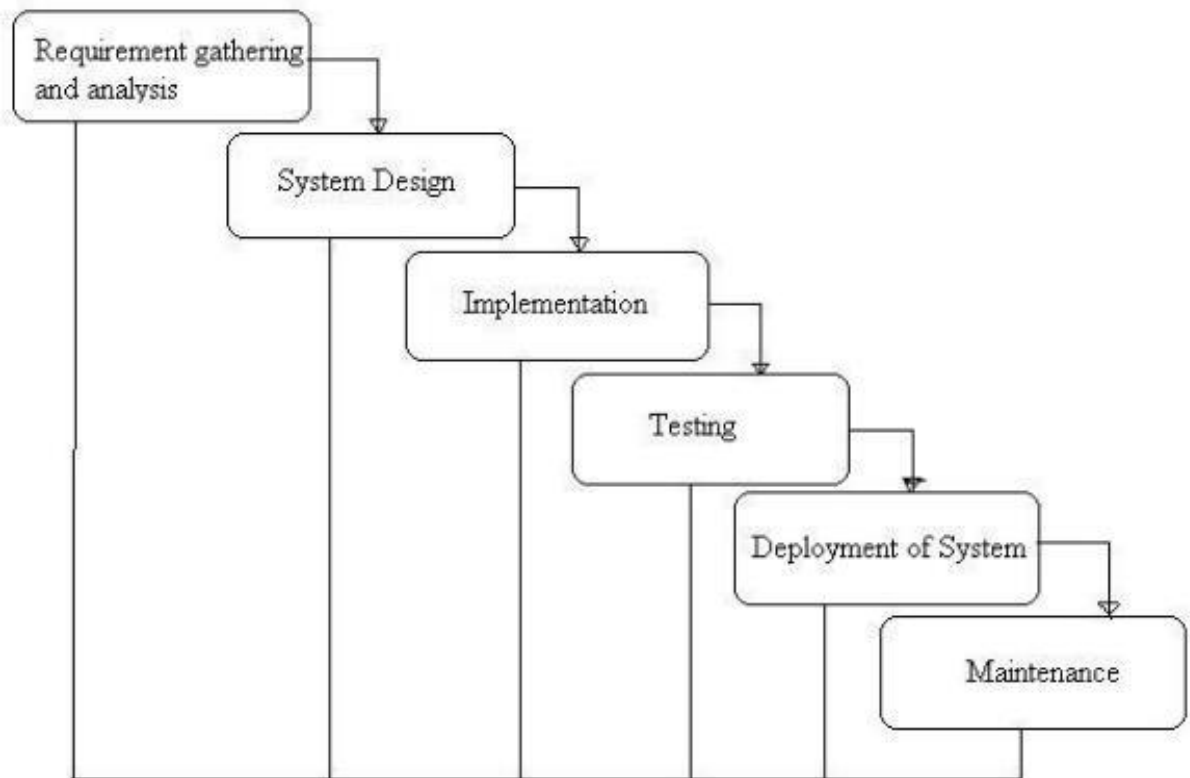


Figure 3.3 SDLC Waterfall Model Diagram

### 3.2 Requirement Collection and Analysis

Requirements analysis is an important phase of the system developments life cycle which provides all the specification of the system in details which is very essential to build the system and also provides the knowledge about the nature of the system. Collection of system requirements is a very important point because the whole system stages of the system developing life cycle (SDLC). The requirement of the system can be classifying in two categories as follows:

- Functional Requirements
- Non- Functional Requirement

### 3.3 Use Case Modeling and Description

- Scenario of log-in

Enter the system user will need to produce user name and password without user name and password a user can't enter the system. This is the use case scenario for the login in system view in below this figure.

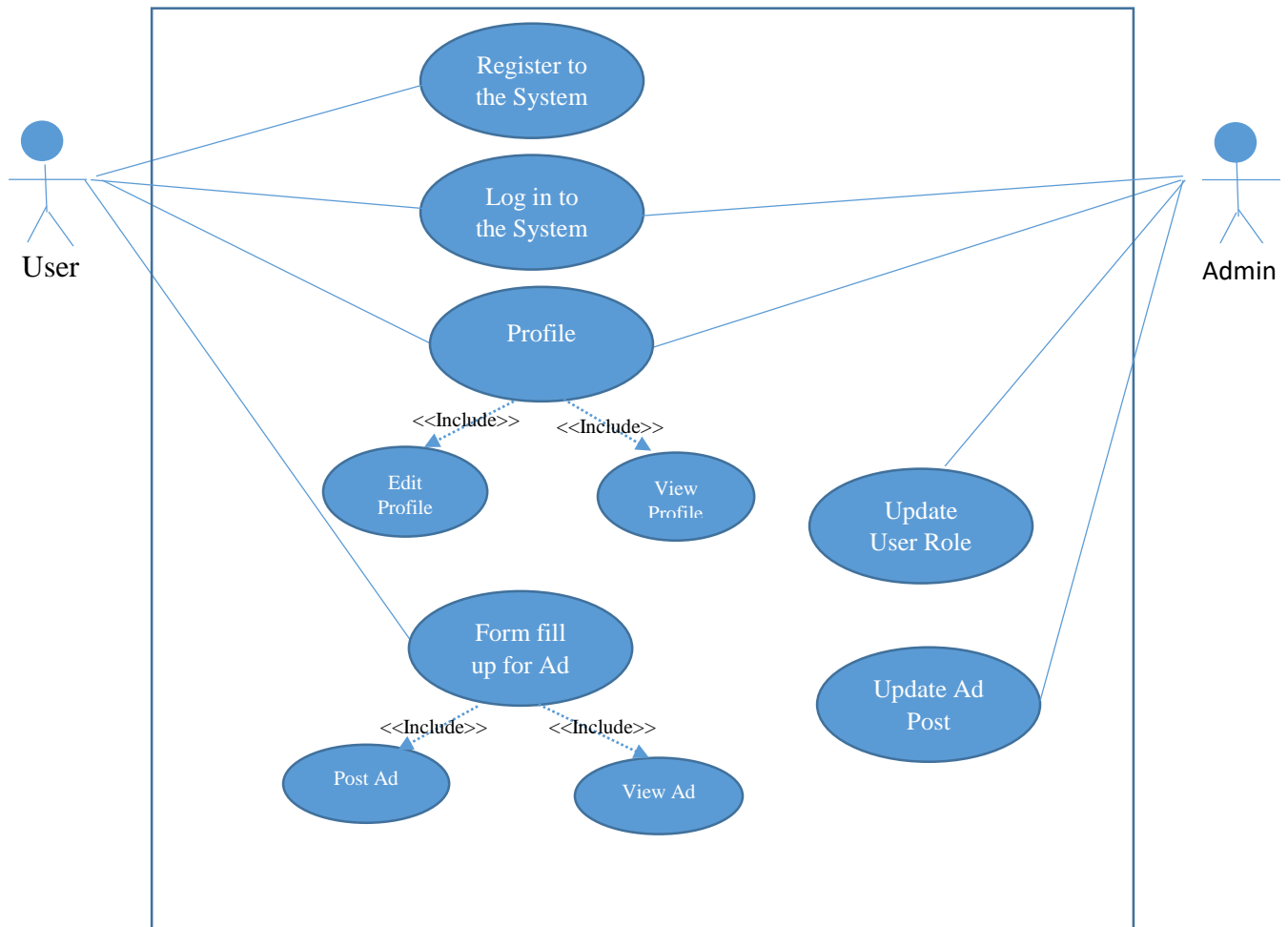


Figure 3.4 Use case scenario for login

### 3.4 Logical Data Model

- Flow Chart for Registration

In the below figure we saw that the procedure for registration we only produce important things for registration in this flow chart. When an admin or user registration in our system he or she must need the full name, unique phone number, unique password.



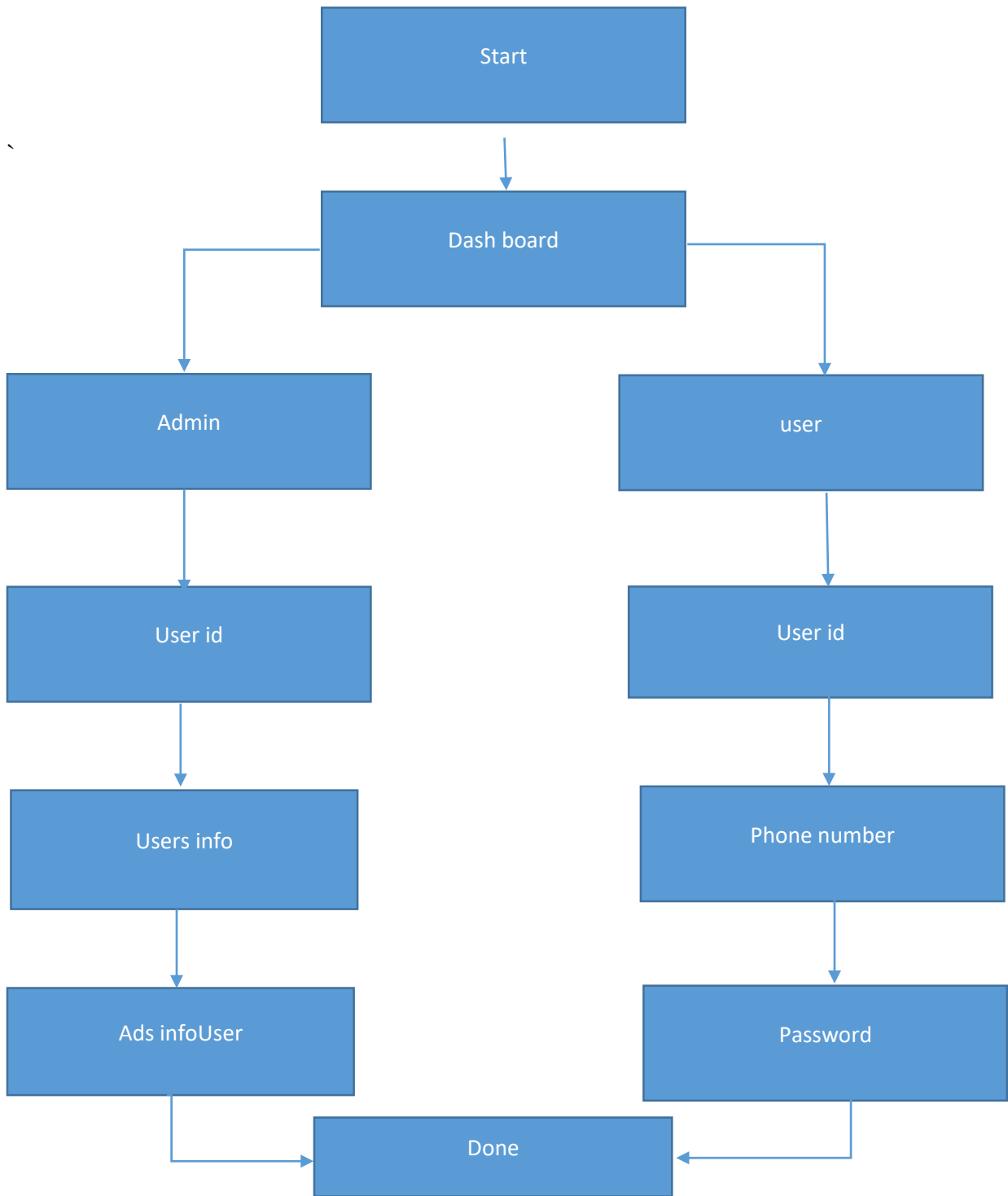


Figure 3.5 Flow chart for Registration

- **Class Diagram**

We need a class diagram for our web application. In this diagram we are using different kind of data type as like as long, int, varchar, dob but we mainly using long and varchar.

We are using those datatype because of those reason given the below:

Long is using for the Long type's values as like as id which is auto increment, example user id.

Varchar using for the string types of values as like username, password, full name, mobile no, password.

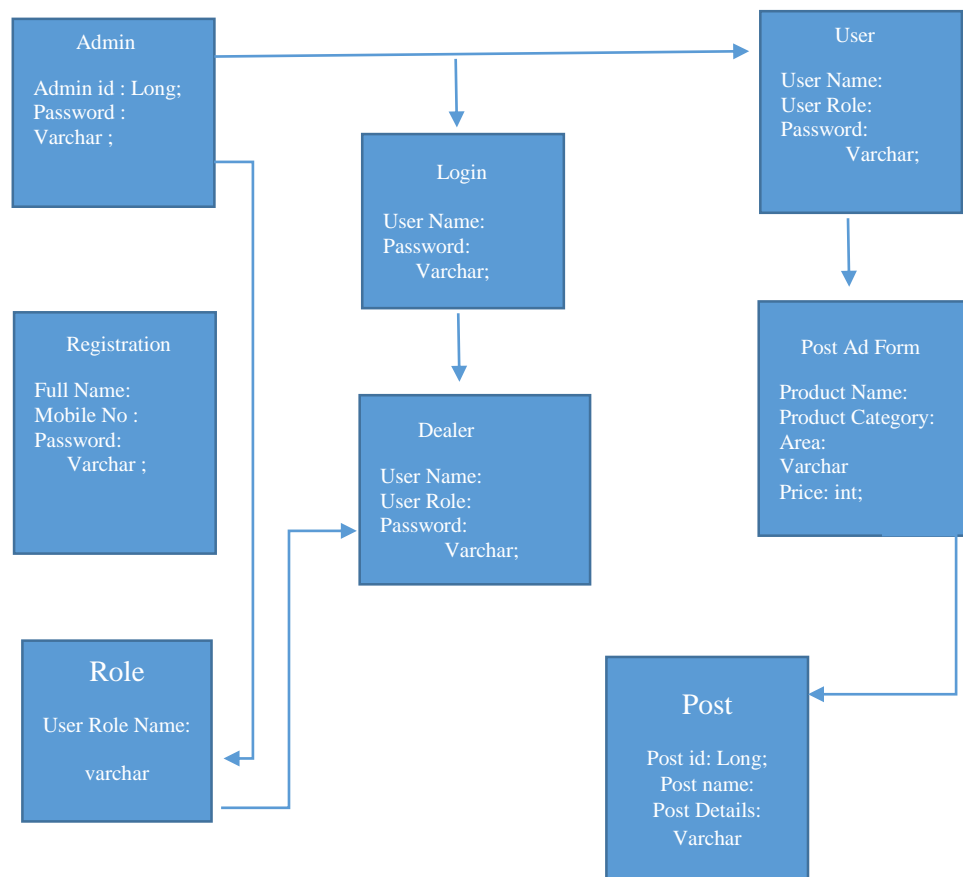


Figure 3.6 Class diagram proposed

### **3.5 Design Requirements**

Design requirements for the user:

- Login
- Post ads
- Buy & sell
- Update Profile
- View Profile.
- Logout

Design Requirements for the admin:

- Login
- Users Information (Add, Delete, Update & View)
- View ads info
- Reset ads
- Ads request accept or delete.

## **CHAPTER 4**

### **DESIGN SPECIFICATION**

#### **4.1 Front-end Design**

- **HTML: Hyper Text Markup Language**  
For Creating web pages and web applications, HTML (Hypertext Markup Language) is the markup language. We using html for view page, stylized text other elements that cannot be for in plain\_illustrate text.
- **CSS: Cascading Style Sheet**  
CSS (Cascading Style Sheets) is a style sheet language used for describing the presentation of a document written in a markup language. When we design some our web page as like as we using CSS for margin, padding, background-image, font-size, border etc. we using CSS in our application.
- **Prime Faces:**  
For a Java-based application, Prime faces is on the most popular open source user interface (UI) component library. Prime faces is used for our UI Design to make our web pages more dynamic, more user-friendly and more important thing is making our site responsive.

#### **4.2 Back-end Design**

- **JSF: JavaServer Faces**  
JSF is construction of UI for server based applications and also a component-based MVC web framework. Component-based driven UI design-model for better view template. Which built on top of the servlet API.
- **Spring Framework:**  
The Spring Framework provides a comprehensive programming and configuration model for modern Java-based enterprise applications - on any kind of deployment platform. It is an open source framework. Spring framework contains the various module that provides many services which developed our project more dynamic and ensure user-friendly.

- Spring Security:  
Spring Security provides a comprehensive security solution for Java EE-based enterprise software applications. It's support for both Authentication and Authorization. Spring security provides an effective and highly configurable security system which ensure all the user more secured. Most impressive power of Spring Security is how easily it can be extended to meet custom requirements.
- MySQL:  
MySQL is a relational database management system which is an open source. We handle our database by using MySQL query. We have done our task like add, delete, update, search information by using MySQL query. All of this data add, delete, update and search information are stored in my admin database.

### **4.3 Interaction Design and UX**

Admin Dashboard Design:

- Show Signup user list
- Add, Update, Delete, User role.
- Add, Update user information and Remove user.
- Add, view, and Delete Post.

User Dashboard Design:

- Fill Up profile information.
- Search information.
- Update, Delete account.
- Add, View, Update, Delete ad Post.

## UX

UX means User Experience. Our system design must be user friendly for good user experience. Now we can show proof that our system interface design satisfies our users. In figure 4.3 we show our real user of our application. Here 16 users available. Out of 16 users, 13 user says yes your system are ok. 2 persons say our system need improvement. And 1 user say no our system need more functions.

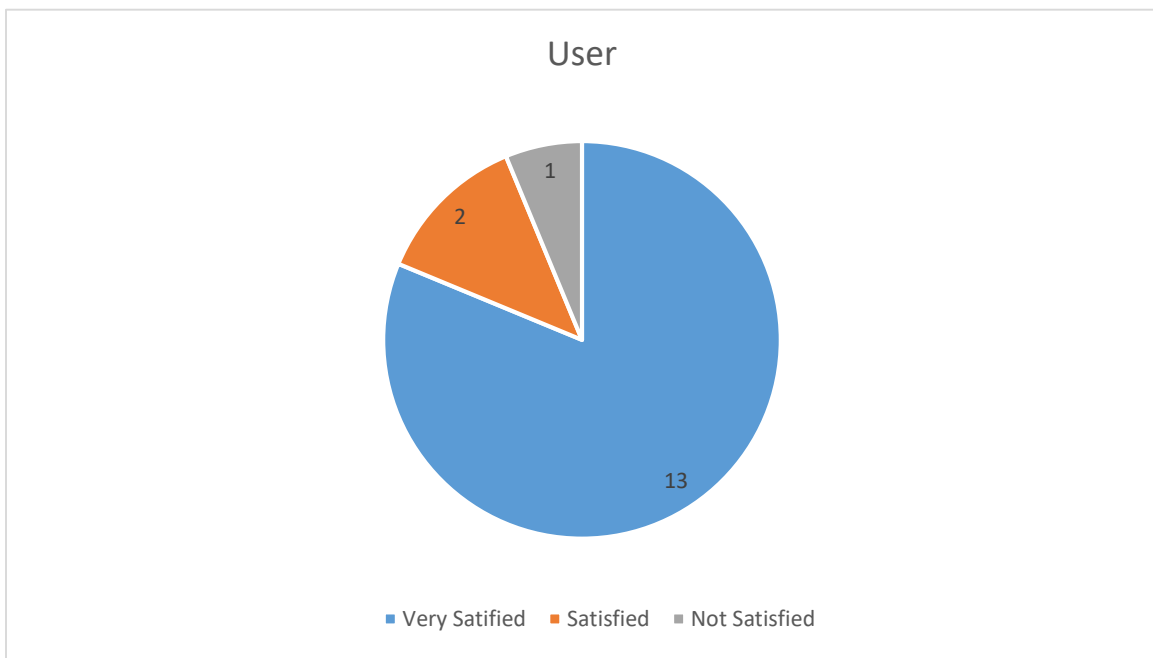


Figure 4.1 Chart of user experience

### 4.4 Implementation Requirements

We used Apache Tomcat server, MySQL database, NetBeans for coding to implement this project. To implement other things like HTML, CSS, JavaScript I used Notepad or Subline text. We have already discussed above which all the tools are used to work in our project.

Minimum Software Requirements for our application

- Windows XP or higher operating System
- NetBeans or any advance editor
- Apache Tomcat Server

# CHAPTER 5

## IMPLEMENTATION AND TESTING

### 5.1 Implementation of Database

The implementation phase is where you install the DBMS on the required hardware, optimize the database to run best on that hardware and software platform, and create the database and load the data. Create the database and tables [12]. Load the data. The database implementation means where I install the DBMS on the required hardware, optimize the database to run best on that hardware and software platform, and create the database and load the data.

Database name: bdfertilizerdb

- Table Name:

Login\_users, user\_roles, users\_info, signup, division, district, thana, buy\_info, post, postconfig, product, product\_catagory, shop, sell\_info.

We are using fourteen database table for our application. In signup, users\_info, Login\_users, table are created because of all information of admin and user are stored in those table. post, postconfig, tables are using for stored all post information.

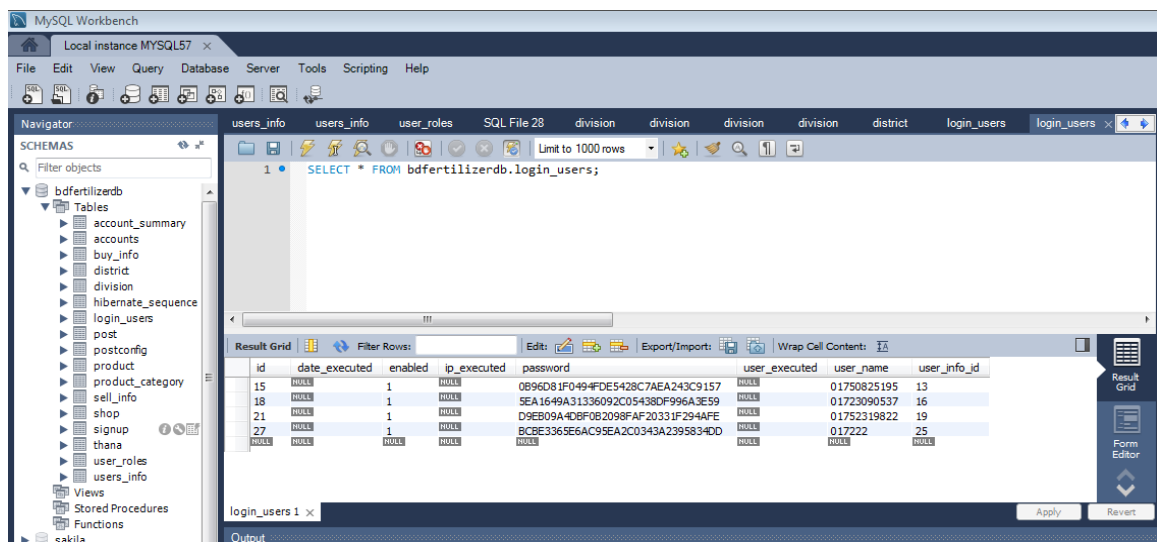


Figure 5.1 Database panel

## 5.2 Implementation of Front-end Design

Figure 5.2 is the first page or home page of our application. In this page we describe the objective of our application and it will be helpful for the user they know about our application why they use of our application. And we will also show Menu bar and it will show us perspective of this application for user easily.

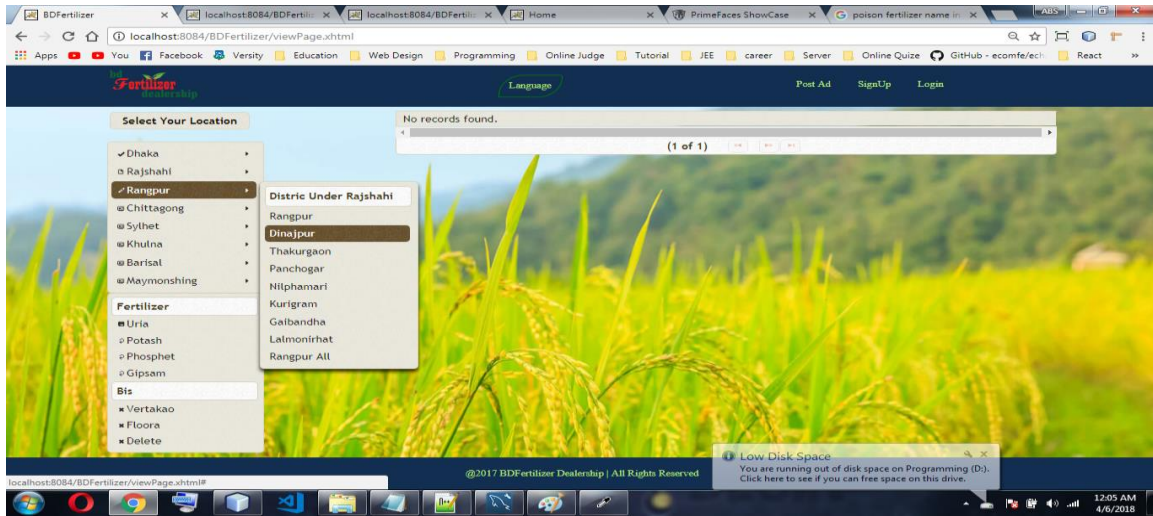


Figure 5.2 Homepage of our Application

Figure 5.3 is the page of signup, without signup no one can't access to login.

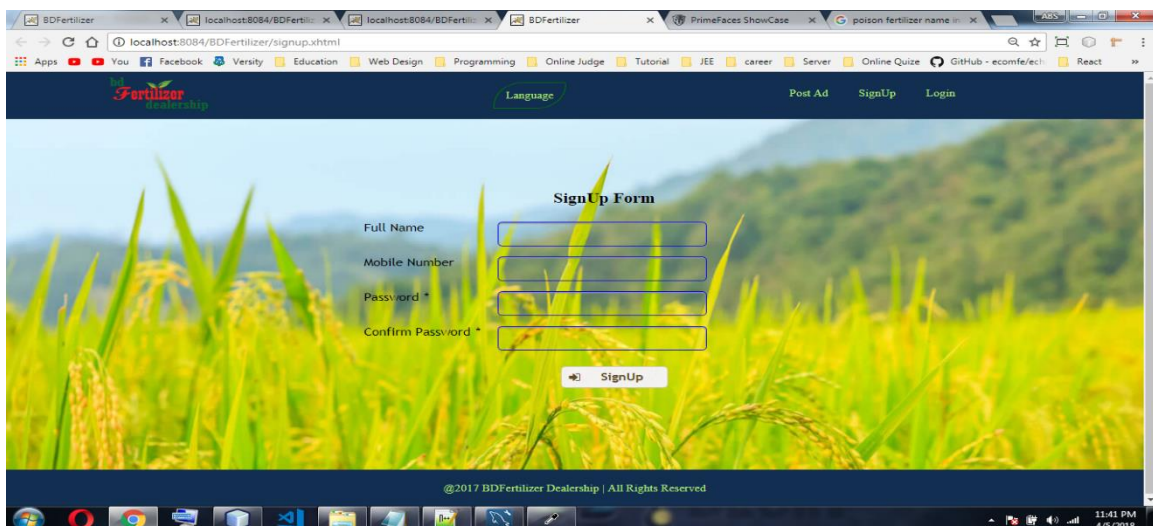


Figure 5.3 Signup Page of Our Application



Figure 5.4 is the page of login, without login no one can't access the dashboard or main web application.

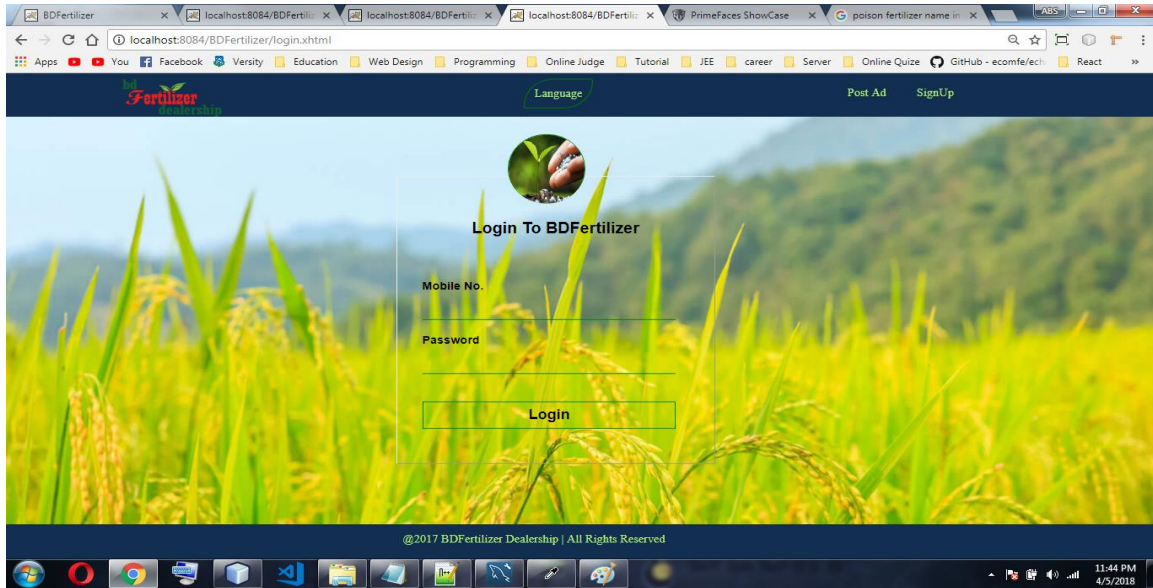


Figure 5.4 Login Page of Our Application

Figure 5.5 is the main page or dashboard, in this template or main page the menu bar will be dynamically based on the user role in our web application.

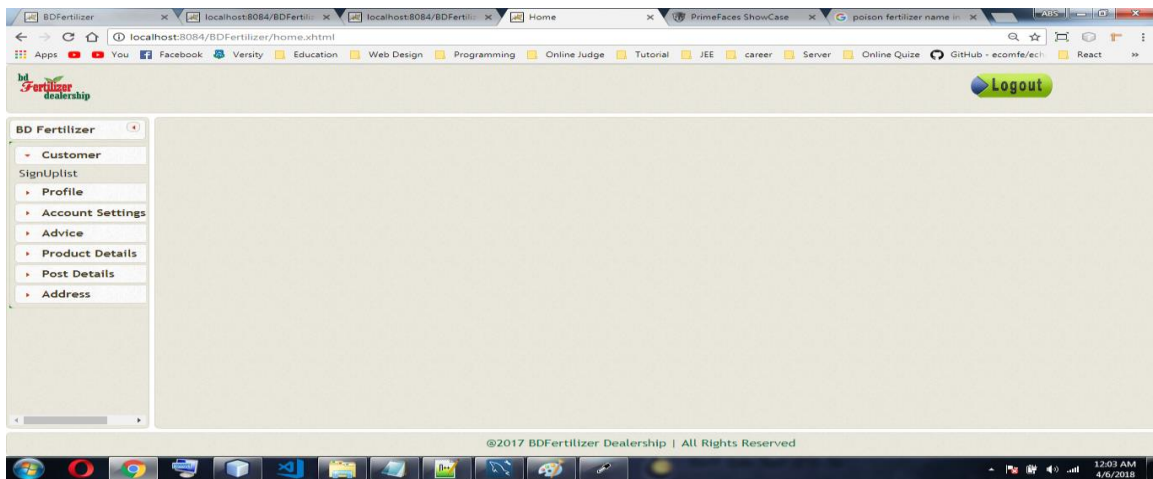


Figure 5.5 Admin Dashboard

Figure 5.6 is the page of all User Profile Form, without fill up user profile form no one can't post the ad in the web application.



Figure 5.6 User Profile of Our Application

### 5.3 Implementation of Interaction

We implemented our system responsively UI for better user experience which make our system interactive. To make our system easiest, we use icon, text link and button. The UI design of our application is user friendly. Only for user who want to buy, ads, and take advice need to create profile. In figure 5.7 is the page for post ads.

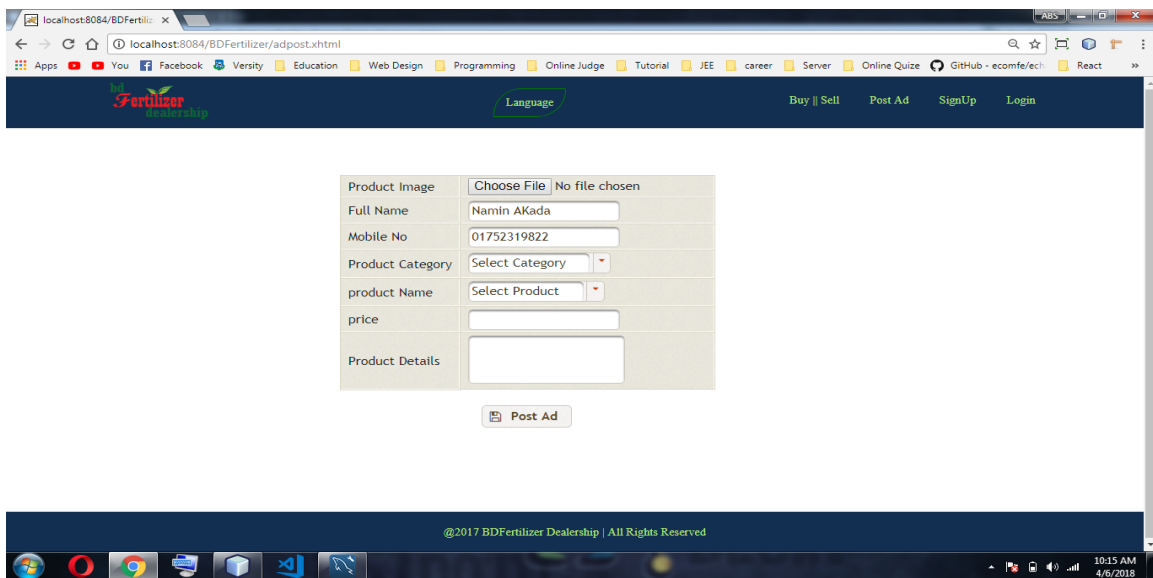


Figure 5.7 Form fill up for Post Ad

#### 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 be clear. Testing each one of those actions formulated in the plan is said to be implementation testing. When a tester or system architect noticed cases and specifications, is it implementable or have limitation to develop this System is the process.

In table 5.1 is the testing objective which is the testing of our application when we ask those question to our real user.

Table 5.1 Test Plan

<b>Serial No</b>	<b>Test Objective</b>
<b>1</b>	To check whether the application run or not
<b>2</b>	To check display all option
<b>3</b>	To check all option are working or not
<b>4</b>	To check Registration of a user or not
<b>5</b>	To check Registration of a dealer's or not
<b>6</b>	To check if admin can show of all information of a user
<b>7</b>	To check only admin can approval advisor and user update request
<b>8</b>	To check if a user can post his ads right perfectly
<b>9</b>	To check if the error message after entering invalid user name or password
<b>10</b>	To check password is encrypted or not
<b>11</b>	To check a user can view dealers information or not

## 5.5 Test Result and Report

In the previous chapter I have shown that all the test case test input, expected output, actual output and finally we find our results and the test result was quite successful. Our application is satisfied by the user. Usability testing examines the following feature of my application.

- How easy it is to use the application?
- How easy it is to learn the application?
- How convenient is the application to end-user?

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

- Better application
- User friendly
- Application is more understandability accepted by users
- Better UI for design.

When we testing our application to real users, we asking those question of each person. In table 5.1 is the testing object of our application.

Table 5.2 Test Result and Report

<b>Report Serial No</b>	<b>Test Objective</b>	<b>Results</b>
<b>1</b>	To check whether the programs run or not	Successfully
<b>2</b>	To check display all option	Successfully
<b>3</b>	To check all option are working or not	Successfully
<b>4</b>	To check Registration of a User or not	Successfully
<b>5</b>	To check Registration of a candidates or not	Successfully
<b>6</b>	To check only admin can show the signup list	Successfully

<b>7</b>	To check The result is resettable or not	Successfully
<b>8</b>	To check only admin can approval user post request	Successfully
<b>9</b>	To check if the error message after entering invalid user name or password	Successfully
<b>10</b>	To check password is encrypted or not	Successfully

## CHAPTER 6

### CONCLUSION AND FUTURE SCOPE

#### 6.1 Discussion and Conclusion

The “BD Fertilizer Dealership application will manage the dealer’s information by which dealers can login and post their product ads. The system will incorporate all features of fertilizer dealer’s application. It provides fertilizer for our all country farmers and by helping with counseling solutions to agricultural problems as an agriculture advisor. There is a database which is maintained by the Admin panel in which all the names, license number, phone number, password, images of dealers, fertilizer description etc. with complete information is stored. In this user who want to buy fertilizer, want to get information because our application can use any people in our country. When a user (dealer) want to post ads he or she will log in with user name and password after successfully login he or she will and send information to buyers about their products. Every activity of user will see the admin. Then the admin approve or reject user post the reason of post. In our application decrease the cost and time. It is very easy to use and it is less time consuming. It is very easy to debug.

#### 6.2 Limitations

- The main limitation now the internet is not enough available for the farmers
- Need to develop in android
- Some features need to be included such as notification and comment by the user and more interactive.

#### 6.3 Scope for Further Developments

- Develop in Android apps
- All information translates in Bangla
- The desire to be established in a corporate way

## REFERENCES

- [1] Learn about spring framework, available at; <https://projects.spring.io/spring-framework/>; Last access at 30-march-2017
- [2] Learn about SDLC-Waterfall Model, available at; [https://www.tutorialspoint.com/sdlc/sdlc\\_waterfall\\_model.htm](https://www.tutorialspoint.com/sdlc/sdlc_waterfall_model.htm); Last access at 28-march-2017
- [3] Learn about Bangladesh Fertilizer Association (BFA), available at; <http://www.bfa-fertilizer.org/>; Last access at 20-march-2018
- [4] Learn about Fertilizer dealer's information, available at; [http://www.bdtradeinfo.com/yellowpages/des\\_data.php?subcategory\\_id=107](http://www.bdtradeinfo.com/yellowpages/des_data.php?subcategory_id=107); Last access at 29-march-2018
- [5] Learn about Wikipedia, available at; [https://en.wikipedia.org/wiki/Business\\_process\\_modeling](https://en.wikipedia.org/wiki/Business_process_modeling); Last access at 29-march-2018
- [6] Akash, SRS for Aakash Tech Support, available at; <http://aakashtechsupportdocs.readthedocs.io/en/latest/behavreq.html>; Last access at 1-april-2018
- [7] Learn about Wikipedia, available at; <https://en.wikipedia.org/wiki/HTML>; Last access at 29-march-2018
- [8] Learn about Wikipedia, available at; [https://en.wikipedia.org/wiki/Cascading\\_Style\\_Sheets](https://en.wikipedia.org/wiki/Cascading_Style_Sheets); Last access at 29-march-2018
- [9] Learn about Wikipedia, Available at; <https://en.wikipedia.org/wiki/PrimeFaces>; Last access at 29-march-2018
- [10] Learn about MySQL, available at; <https://www.mysql.com/>; Last access at 29-march-2018.
- [11] Learn about spring security, available at; <https://projects.spring.io/spring-security/>; Last access at 29-march-2018
- [12] "Implementation of Database", available at; [https://www.ibm.com/support/knowledgecenter/en/SSGU8G\\_11.70.0/com.ibm.ddi.doc/ddi.htm](https://www.ibm.com/support/knowledgecenter/en/SSGU8G_11.70.0/com.ibm.ddi.doc/ddi.htm); Last access 2-April-2018
- [13] "System testing", available at; <http://softwaretestingfundamentals.com/system-testing/>; Last access 2-april-2018
- [14] "Testing Implementation", available at; [https://www.tutorialspoint.com/software\\_testing\\_dictionary/implementation\\_testing.htm](https://www.tutorialspoint.com/software_testing_dictionary/implementation_testing.htm); Last access 2-april-2018

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Matches	20