Web based agriculture information system

A Project Work
submitted in partial fulfillment of the
requirements for the degree of

Bachelor of Technology
in
Computer Science and Engineering

Submitted By

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DECLARATION

Project Title: **FARM MANAGEMENT SYSTEM**

Degree for which the project work is submitted: **Bachelor in Technology in Computer Science and Engineering**

I declare that the presented project represents largely my own ideas and work in my own words. Where others ideas or words have been included, I have adequately cited and listed in the reference materials. The report has been prepared without resorting to plagiarism. I have adhered to all principles of academic honesty and integrity. No falsified or fabricated data have been presented in the report. I understand that any violation of the above will cause for disciplinary action by the Institute, including revoking the conferred degree, if conferred, and can also evoke penal action from the sources which have not been properly cited or from whom proper permission has not been taken.

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Date: 05 May 2020

CERTIFICATE

It is certified that the work contained in this project entitled **"Farm Management System"** submitted by Amit shukla(15SCSE105059), for the degree of Bachelor in Technology in Computer Science and Engineering is absolutely based on our own work carried out under my supervision and this project work has not been submitted elsewhere for any degree.

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CHAPTER-1

INTRODUCTION

Kisaan Vraddhi is a Java & MySQL-based application which gives an idea to the farmers how to use e-farming to sell their products. Farmers will get all the new ideas to improve their productivity and they can buy and sell their products online.

KISAAN VRADDHI is a web application developed for farmers. This application gives suppose to the village farmers who want to use this facility and who want to learn how is it possible and how they can use e-farming to sell their products.

If the farmers have knowledge of computer then they can directly register in the site and sell their product otherwise they can contact company's computer professional who will schedule classes to teach the basics of computers and internet. They can know how they can open this site and register with it and sell their products online etc.

E-Farming is a project developed to build a website which will help farmers from to sell their products to different cities through online. Farmers can use this facility and can learn how is it possible and how they can use e-farming to sell their products.

This **Kisaan Vraddhi** Java Project has the major modules below:

Admin:

Admin should be able to see all record from any users. The records shown for selling should be available in a format of Quantity name, Quantity available, price. The database should be robust enough to handle all the online transactions which will be happening parallel.

Users:

People can register on the site for some basic e-learning like if some user wants to learn how to operate a computer, they can go and learn about it from the site. The site should also be available in local languages as per States.

Computer professionals:

Automatic transfer of emails to company's computer professional if some user enrolled for basic course There should be a facility of scheduling classes for farmers who enrolled for basic courses.

Seller:

The seller can fill the registration form and get his credentials. All the details of the product will be uploaded by the seller. Seller will fix the rates of the products. The seller can view the result page. Seller will add the details of the item. The seller can update the details of the item.

Buyer:

Buyer will get the username and password by filling the registration form. Buyer will view all the details of the product. Buyer will see the list of products that he wants to buy. Buyer can view the sales rate details.

Reports:

Daily report of enrollment to Admin. Monthly report of enrollment as per states to Admin. Work hours use of Computer professionals on a monthly basis to Admin.

Existing System:

In the existing system buying and selling a product is done manually. Price of the product is fixed by the seller. All the details of the product to be sold or purchased is maintained manually. Sellers or buyers not able to get the complete information about the product.

Proposed System:

The proposed system buyers or sellers can directly register in the site and sell/buy the product otherwise they can contact with a seller directly. Buyers can open the site and register with it and sell their products online. E-Farming is a project builds a website which will help businessman to sell their products in different cities online.

CHAPTER-2

OBJECTIVE & SCOPE OF THE PROJECT

Objective

The main objective of this project is to build a website which will help farmers from Indian villages to sell their products to different cities.

Kisaan Vraddhi is basically an interaction between Farmer and Customer easily through Online web. This project describes how shopping becomes easy for customer through keeping it online. This project contains Two categories namely Farmer and Customer through which user can easily interact with admin.

Under Farmer these works are done:

- User List
- User Delete.
- Payment List
- Import New Product.
- Update New Product.

Second is Customer under this

- Update My Account and View.
- View Product Details
- Shopping details
- Online Shopping
- Feedback

Other Objectives

- User friendly interface.
- A central database holds the key to system.
- All forms are html templates driven
- Integration among all functional areas.
- The availability of the information is easy.
- Routine tasks are easily performed.
- It automates the redundant tasks.
- It will save time and money.
- In summary we can say that main objective of the project is to make the work easy and smooth.
- It will provide the better customer service and enhance the profit of the organization.

CHAPTER-3

TOOLS/ENVIRONMENT USED

3.1 FRONT END

JAVA SERVER PAGE (JSP):

Java Server Pages is a simple, yet powerful technology for creating and maintaining dynamic-content web pages. Based on the Java programming language, Java Server Pages offers proven portability, open standards, and a mature re-usable component model.

The JSP engine for a particular server might be built-in or might be provided through a 3rd –party add-on. As long as the server on which you plan to execute the Java Server Pages supports the same specification level as that to which the file was written, no change should be necessary as you move your files from server to server. Note, however, that instructions for the setup and configuration of the files may differ between files.

PROCESSING:

A Java Server Pages file is essentially an HTML document with JSP scripting or tags. It may have associated components in the form of class, .jar, or .ser files- -or it may not. The use of components is not required.The Java Server Pages file has a .jsp extension to identify it to the server as a Java Server Pages file. Before the page is served, the Java Server Pages syntax is parsed and processed into a servlet on the server side. The servlet that is generated, outputs real content in straight HTML for responding to the customer. Because it is standard HTML, the dynamically generated response looks no different to the customer browser than a static response.

In this scenario, suppose the page accessed reusable Java Bean components that perform particular well-defined computations like accessing a database. The result of the Bean's computations, called result sets is stored within the Bean as properties. The page uses such Beans to generate dynamic content and present it back to the client. A request comes through a servlet.

SERVLET

A *servlet* is a Java programming language class used to extend the capabilities of servers that host applications accessed via a request-response programming model. Although servlets can respond to any type of request, they are commonly used to extend the applications hosted by Web servers. For such applications, Java Servlet technology defines HTTP-specific servlet classes.

The javax.servlet and javax.servlet.http packages provide interfaces and classes for writing servlets. All servlets must implement the Servlet interface, which defines life-cycle methods.

The servlet generates the dynamic content. To handle the response to the client, the servlet creates a Bean and stores the dynamic content (sometimes called the result ***set***) in the Bean. The servlet then invokes a Java Server Page that will present the content along with the Bean containing the generated from the servlet.

There are two APIs to support this model of request processing using Java Server Pages. One API facilitates passing context between the invoking servlet and the Java Server Page. The other API lets the invoking servlet specify which Java Server Page to use.

In both of the above cases, the page could also contain any valid Java code. The Java Server Pages architecture separation of content from presentation- -it does not mandate it.

JDBC requires that the SQL statements be passed as Strings to Java methods. For example, our application might present a menu of database tasks from which to choose. After a task is selected, the application presents prompts and blanks for filling information needed to carry out the selected task. With the requested input typed in, the application then automatically invokes the necessary commands.

In this project we have implemented three-tier model, commands are sent to a "middle tier" of services, which then send SQL statements to the database. The database processes the SQL statements and sends the results back to the middle tier, which then sends them to the user. JDBC is important to allow database access from a Java middle tier.

FRONT END:

J2EE - Java 2 Enterprise Edition is a programming platform part of the Java Platform for developing and running multitier architecture Java applications, based largely on modular software components running on an application server.

TOMCAT- It's an application server which is mostly used in the web-applications. It implements the Servlet 2.5 &JSP 2.1 specifications. It's a cross-platform application Server.

JSP- Java Server Pages (JSP) is a server-side Java technology that allows software developers to create dynamically generated web pages, with HTML, XML or other document types. JSPs are compiled into Servlets by a JSP compiler.

SERVLET- Servlets are Java programming language objects that dynamically process requests & construct responses. The Servlet APIs are contained in the javax.servlet &

javax.servlet.http packages. Servlets can be generated automatically by Java server Pages (JSP) compiler.

NetBeans- NetBeans is the most comprehensive J2EE IDE () for the open Source netbeans platform. It incorporates most innovative open standard technologies to provide a development environment for J2EE WEB, XML, UML & database & a wide array of application server connectors to streamline development, deployment, testing & portability. It's a cross-platform.

Java Script – Javascript is a programming language that is used to make web pages interactive. It runs on your visitor's computer and so does not require constant downloads from your web site.

Ajax – Ajax (sometimes called Asynchronous JavaScript and XML) is a way of programming for the Web that gets rid of the hourglass. Data, content, and design are merged together into a seamless whole. When your customer clicks on something on an Ajax driven application, there is very little lag time.

CSS - Cascading Style Sheets (**CSS**) is a style sheet language used to describe the presentation semantics (the look and formatting) of a document written in a markup language. Its most common application is to style web pages written in HTML and XHTML, but the language can also be applied to any kind of XML document, including SVG and XUL.

What Is JDBC

JDBC is a Java API for executing SQL statements. (As a point of interest, JDBC is a trademarked name and is not an acronym; nevertheless, JDBC is often thought of as standing for "Java Database Connectivity".) It consists of a set of classes and interfaces written in the Java programming language. JDBC provides a standard API for tool/database developers and makes it possible to write database applications using a pure Java API.

Using JDBC, it is easy to send SQL statements to virtually any relational database. In other words, with the JDBC API, it isn't necessary to write one program to access a Sybase database, another program to access an Oracle database, another program to access an Informix database, and so on. One can write a single program using the JDBC API, and the program will be able to send SQL statements to the appropriate database. And, with an application written in the Java programming language, one also doesn't have to worry about writing different applications to run on different platforms. The combination of Java and JDBC lets a programmer write it once and run it anywhere.

Java being robust, secure, easy to use, easy to understand, and automatically downloadable on a network, is an excellent language basis for database applications. What is needed is a way for Java applications to talk to a variety of different databases. JDBC is the mechanism for doing this.

JDBC extends what can be done in Java. For example, with Java and the JDBC API, it is possible to publish a web page containing an applet that uses information obtained from a remote database. Or an enterprise can use JDBC to connect all its employees (even if they are using a conglomeration of Windows, Macintosh, and UNIX machines) to one or more internal databases via an intranet. With more and more programmers using the Java programming language, the need for easy database access from Java is continuing to grow.

3.2 BACK END

Introduction to My Sql

Modern relational database management systems can perform a wide range of tasks. It has got the following advantages-

- Define a database
- Query the database
- Add, edit and delete data.
- Modify the structure of the database
- Secure data from public access.
- Communicate within networks
- Export and import data

MySql is one such RDBMS. It provides a set of functional programs that we use a tool to build structure and performs tasks, in mysql data is stored and displayed in tables. A table is a data structure that holds data in a relational database. A table comprises of rows and columns. Table can also show relationship between entities. The formal name of table is relation, hence the name Relational Database Management System.

Access of data in mysql

SQL is a structured query language that we use to communicate with mysql. It consists of a set of English words like Select, Create etc. The standard set of SQL command fall into the following category-

- Queries using select clause

- Data definition language (DLL) commands which are for creating and altering the structure of database.

Salient Features of MySql

- Open Source
- Efficient multi-user support and consistency
- Powerful security feature
- Fault tolerance
- Ease of administration
- Application development tools
- Networking
- SQL compatibility

About SQL

SQL is a structured query language that we use to communicate with oracle. It consists of a set of English words like Select, Create etc. The standard set of SQL command fall into the following category-

3.3 Tools / Platform, Hardware and Software Requirement specifications

HARDWARE SPECIFICATION

VIRTUAL MEMEORY	
PROCESSOR	: 32 BIT, Pentium – IV
RAM	: 1 GB
HARD DISK	: 40 GB
MONITOR	: SVGA Monitor (800 * 600RESOLUTIONS)
CLOCK SPEED	: 266 MHz

SOFTWARE SPECIFICATION

OPERATING SYSTEM	: Windows 2000/XP.
FRONT END	: Java
BACK END	: My Sql

CHAPTER-4

ANALYSIS DOCUMENT

SYSTEM ANALYSIS

4.1 PRELIMINARY INVESTIGATION

Things are expected to get even more critical since the company's growing numbers of clients and related requirements have been projected to demand a massive number of employees in the coming future from the past and the today's date. Such events and projections have forced a strong need for modification in the current way of handling activities. it is better to implement the latest of it rather than to go through the pain of updating the system over and over again. Also the solution would be developed by in-house developers. Their time have to be managed with their other client dependent schedules.

FEASIBILITY STUDY

Depending on the results of the initial investigation, the survey is expanded to a more detailed feasibility study. Feasibility study is a test of system proposal according to its workability, impact on the organization, ability to meet user needs, and effective use of resources. The objective of the feasibility study is not to solve the problem but to acquire a sense of its scope. During the study, the problem definition is crystallized and aspects of the problem to be included in the system are determined.

Consequently, costs and benefits are described with greater accuracy at this stage. It consists of the following:

Statement of the problem: A carefully worded statement of the problem that led to analysis.

TECHNICAL FEASIBILITY

This involves financial considerations to accommodate technical enhancements. If the budget is a serious constraint, then the project is judged not feasible.

ECONOMICAL FEASIBILITY

With the help of banking application, it will lead to decrease in cost of opening and maintaining offices which will be more than the cost of developing and maintaining the Application.

OPERATIONAL FEASIBILITY

This Application is very easy to operate as it is made user friendly. Main consideration is user's easy access to all the functionality of the Application.

4.2 IDENTIFICATION OF NEED

To identify the need for software we use the Principles of Requirement Engineering. Requirement engineering provides the appropriate mechanism for understanding what the customer wants, analyzing need, assessing feasibility, negotiating a reasonable solution, specifying the solution unambiguously, validating the specification and managing the requirement as they are transformed into an operational system. The requirement engineering process can be described in five distinct steps: -

- Requirement elicitation.
- Requirement analysis & negotiation.
- Requirement specification.
- System Modeling.
- Requirement validation.
- Requirement Management.

In other words we can say that requirement analysis is a software task that bridges the gap between system level requirement engineering and software design. Requirement analysis allows the software engineering to refine the software allocation and build models of the data, functional and behavioral domains that will be treated by software. Requirement analysis provides the software designer with a representation of information, function and behavior that can be translated into data, architectural, interface and component level design;

finally the requirement specification provides the developer and the customer with the means to assess quality once software is built.

The most commonly used requirement elicitation technique is to conduct a meeting or interview. The first meeting between a software engineer and customer can be likened to the awkwardness of a first date between to adolescents. Neither person knows what to say or ask, Both are worried that what they do say will be misinterpreted, both are thinking about where it might lead (Both likely have radically different expectation here) Both want to get the think over with, but at the same time, both want it to be a success.

Here according to this principle, the analyst starts by asking context-free-questions. That is a set of question that will lead to a basic understanding of the problem, the people who want a solution, the nature of solution that is desired, and the effectiveness of the first encounter itself. The first set of Context-free question focuses on the customer, the overall goals, and the benefits. For example, the analyst might ask: -

- Who is behind the request for this work?
- Who will use the solution?
- What will be economic benefit of a successful solution?
- Is there another source for the Solution that you need?

The next set of the questions enables the software engineer to gain a better Understanding of the problem and the customer to voice his or her perceptions about a solution: -

- How would you characterize "good" output that would be generated by a successful solution?
- What problem(s) will this solution address?
- Can you show me (or describe) the environment in which the solution will be used?
- Will special performance issues or constraints affect the way of the solution is approached?
- Are you the right person to answer these questions? Are your answers? Official"?
- Are my questions relevant to the problem that you have?
- Am I asking too many questions?
- Can anyone else provide additional information?
- Should I be asking you anything else?

According to the above concepts I went to the various IT companies and met its staffs, management, and some persons related with the organizational work, which advised me related with my project.

Preliminary Investigation

The first step in the system development life cycle is the preliminary investigation to determine the feasibility of the System. The purpose of the preliminary investigation is to evaluate project requests. It is neither a design study nor does it includes the collection of details top describe the business system in all respect. Rather, it is collecting of information that helps committee members to evaluate the merits of the project request and make an informed judgment about the feasibility of the proposed project.

Here for the **"KISAAN VRADDHI"**, I have worked on the preliminary investigation that accomplished the following objectives:

- Clarify and understand the project request.
- Determine the size of the project.
- Assess costs and benefits of alternative approaches.
- Determine the technical and operational feasibility of alternative approaches.

Report the findings to management with recommendation outlining the acceptances or rejection of the proposal.

Considering above criteria, I also keep in mind that the requirements are clearly understandable when the clarification of project request is enquired. The data of the IT Companies which are collected by me during preliminary investigation, are: -

- Reviewing organization Documents
- Onsite observation and
- Conducting interviews.

Feasibility Study

Not everything imaginable is feasible, not even in software, evanescent as it may appear to outsiders. Feasibility is the determination of whether or not a project is worth doing. On the contrary, software feasibility has seven solid dimensions as below: -

1. Technical feasibility.
2. Operational feasibility.

3. Economic feasibility.

The process followed in making this determination is called a feasibility study. This type of study determines when a project can or should be taken. Once it has been determined that the project is feasible, and then analyst can go ahead and prepare the project specification, which finalizes project requirements. Generally, feasibility studies are undertaken within tight time constraints and normally culminate in a written and oral feasibility report. The contents and recommendation of such a study will be used as a sound basis for deciding whether to proceed, postpone or cancel the project. Thus, since the feasibility study may lead to the commitment of large resources, it becomes necessary that it should be conducted competently and that no fundamental errors of judgment are made.

In other words we can say that a feasibility study is conducted to select the best system that meets performance requirement. This contains and identification description, an evaluation of candidate system and the selection of best system for the job. The system required a statement of constraints; the identification of specific system objective and a description of outputs define performance.

a) Technical Feasibility

Technical feasibility is concerned with specifying equipment and software that will successfully satisfy the user requirements. My project is fit in technical feasibility because it requires neither too much heavy configuration system for its run nor in its development.

b) Economical Feasibility

Economic analysis is the most frequently used technique for evaluation of the effectiveness of a proposed system. More commonly known as Cost/Benefit analysis, the procedure is to determine the benefits and saving that are expected from a proposed system and compare them with costs. If benefits outweigh costs, a decision is taken to design and implement the system. Other weight costs, a decision is taken to design and implement the system. Otherwise, further justification or alternative in the proposed system will have to be made if is to have a chance of being approved. This is an on going effort that improves in accuracy at each phase of the system life cycle.

c) Operational Feasibility

My project is also fit in Operational Feasibility Study. As I have explained before this about Technical Feasibility and Economical Feasibility, this Software is very easy and user-friendly.

I have used a very easy menu system and also used some control buttons in the easy way by which one can choose the options on his desire. Though this is fully protected with the security

by word (Password and user name), If both are matched only then one can get access of this software**.** Various Reports, Forms and Queries can be generated on the fingertips for the user. In nutshell we can say that it has following operational features:

1. It is User-Friendly.
2. It is having less paperwork.
3. Efficient tractability.
4. Query can be generated.

Project Planning

The planning, design, and installation of a system termed a project and is directed by a project leader who uses the available resources to produce a new or better system for the organisations.

Thus, project planning for any company has the following four main steps:

1. Organising the resources available for the project.
2. Scheduling the events of the project.
3. Evaluating the progress.
4. Establishing standards for the project.

An effective manager is essential for successful project planning. The techniques of project planning are not a substitute for good management, but merely a tool to be used by managers to achieve better results. Only effective management can complete the project on time, within budget, and with satisfactory results.

Project Scheduling

In project management, a **schedule** consists of a list of a project's terminal elements with intended start and finish dates. Terminal elements are the lowest element in a schedule, which is not further subdivided. Those items are often estimated in terms of resource requirements, budget and duration, linked by dependencies and scheduled.

The charting techniques are the scheduling tools of the project planner. Even the simplest project should be charted so that progress can be measured. The Gantt chart is effective in simple projects, especially when the interrelationships among events are not too complex. Complicated scheduling usually requires a PERT chart.

A schedule must be flexible because unexpected events may occur that may affect the schedule of development of the system. Seldom do systems projects meet the original

schedule at each milestone. This does not imply that schedules are made to be broken, but a schedule cannot be so rigid that when the unexpected occurs, subsequent events cannot be rescheduled.

A schedule has two primary functions, it is both a plan and a device for measuring progress. The key steps in a schedule are called milestones, or checkpoints. As the project progresses, the date on which each milestone is completed is compared with the date for which it was projected. In any project, frequent progress reviews take place in which the status of events is reported and evaluated.

When a project is behind schedule, corrective steps must be taken. Establishing milestones is meaningless unless the project manager can enforce adherence to schedule. Enforcement is a normal managerial duty. If a project leader cannot enforce a schedule, someone else should be leading the project. The following are variety of options that are open to the project leader:

• Increase the budget.

• Increase manpower in the form of overtime or additional people.

• Add equipment.

• Change priorities.

• Replace the individual responsible.

4.3 SOFTWARE REQUIREMENTS SPECIFICATION

SRS is software requirement specification it contains the s/w requirement details like what is front-end technology, backend technology, os and hardware architecture of the project.

SRS stands for Software Requirement Specification. It establishes the basis for agreement between customers and contractors or suppliers on what the software product is expected to do, as well as what it is not expected to do.

Some of the features of SRS are –

• It sets permits a rigorous assessment of requirements before design can begin.
• It sets the basis for software design, test, deployment, training etc. It also sets pre-requisite for a good design though it is not enough.
• It sets basis for software enhancement and maintenance.
• It sets Basis for Project plans like Scheduling and Estimation.

Thus, SRS should be consistent, correct, unambiguous & complete, document. The developer of the system can prepare SRS after detailed communication with the customer. An SRS clearly defines the following:

• **External Interfaces of the system:** They identify the information which is to flow 'from and to' to the system.

• **Functional and non-functional requirements of the system.** They stand for the finding of run time requirements.

• Design constraints:

The SRS outline is:

1. Introduction

    1.1 Purpose

    1.2 Scope

    1.3 Definitions, acronyms, and abbreviations

    1.4 References

    1.5 Overview

2. Overall description

    2.1 Product perspective

    2.2 Product functions

    2.3 User characteristics

    2.4 Constraints

    2.5 Assumptions and dependencies

3. Specific requirements

    3.1 External Interfaces

    3.2 Functional requirements

    3.3 Performance requirements

    3.4 Logical Database requirements

    3.5 Design Constraints

    3.6 Software system attributes

    3.7 Organising the specific requirements

    3.8 Additional Comments

4. Supporting information

    2.1 Table of contents and index

    2.2 Appendixes

The requirements gathering process is intensified and focused specifically on software. To understand the nature of the program(s) to be built, the software engineer ("analyst") must

understand the information domain for the software, as well as required function, behavior, performance, and interface. Requirements for both the system and the software are documented and reviewed with the customer.

DESIGN

Software design is actually a multi step process that focuses on four distinct attributes of a program data structure, software architecture, interface representations, and procedural (algorithmic) detail. The design process translates requirements into a representation of the software that can be accessed for quality before coding begins. Like requirements, the design is documented and becomes part of the software configuration.

Code Generation: -

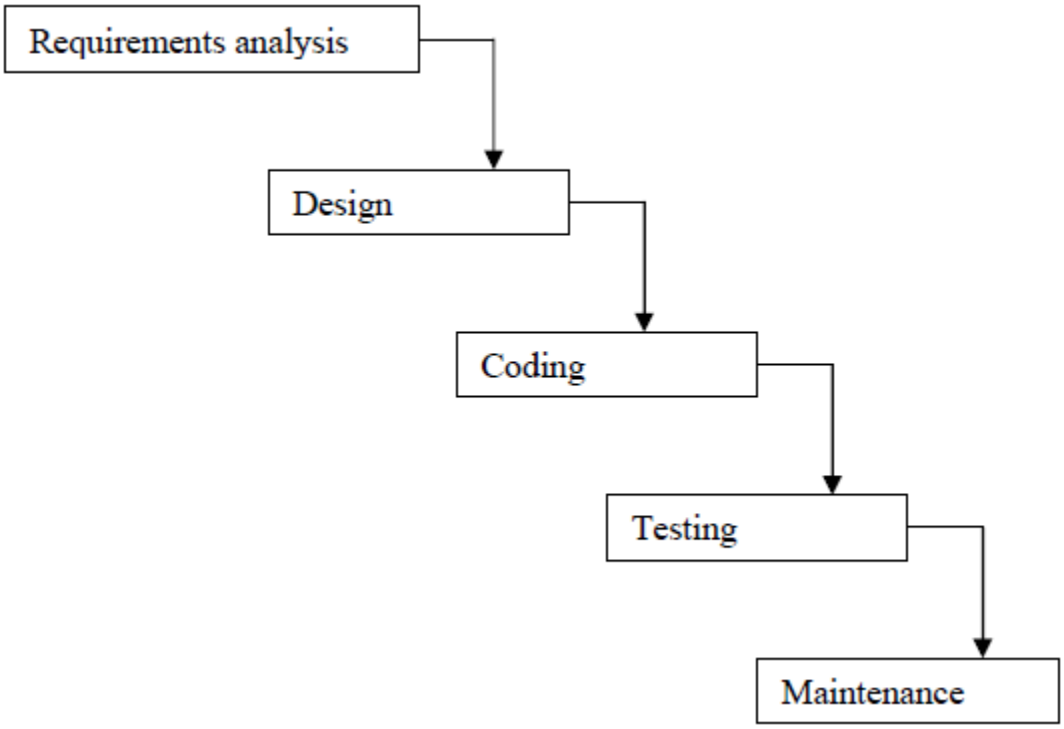
The design must be translated into a machine-readable form. The code generation step performs this task. If design is performed in a detailed manner, code generation can be accomplished mechanistically.

Testing: -

Once code has been generated, program testing begins. The testing process focuses on the logical internals of the software, ensuring that all statements have been tested and on the functional externals, that is, conducting tests to uncover errors and ensure that defined input will product actual results that agree with required results.

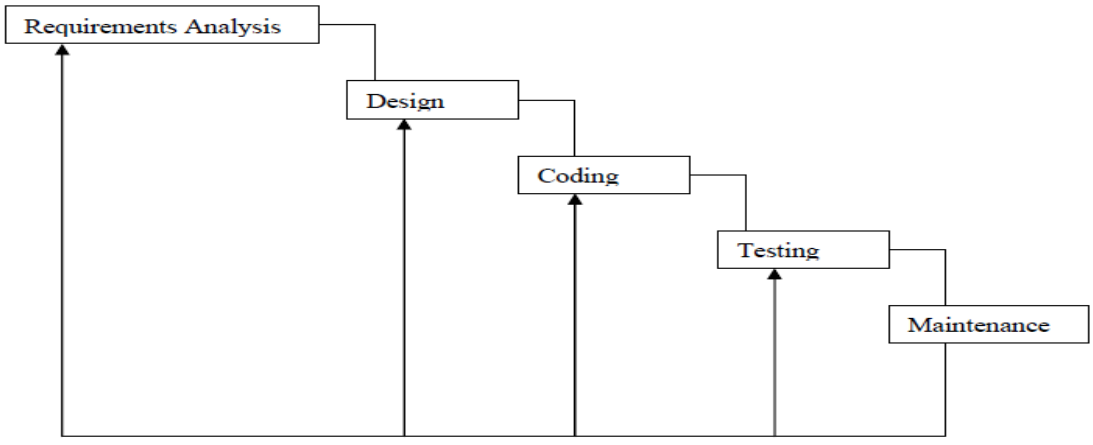
Waterfall Model

It is the simplest, oldest and most widely used process model. In this model, each phase of the life cycle is completed before the start of a new phase. It is actually the first engineering approach of software development.



The waterfall model provides a systematic and sequential approach to software development and is better than the build and fix approach. But, in this model, complete requirements should be available at the time of commencement of the project, but in actual practice, the requirements keep on originating during different phases. The water fall model can accommodate the new requirements only in maintenance phase. Moreover, it does not incorporate any kind of risk assessment. In waterfall model, a working model of software is not available. Thus, there is no methods to judge the problems of software in between different phases.

A slight modification of the waterfall model is a model with feedback. Once software is developed and is operational, then the feedback to various phases may be given.



SOFTWARE ENGINEERING PARADIGM

Linear Sequential Model has been used in carrying out this project work. The Linear Sequential Model is the oldest and the most widely used paradigm for Software Engineering. Linear Sequential Model is called sometimes the Classic Life Cycle or the Waterfall Model.

The Linear Sequential Model suggests a systematic, Sequential approach to software development that begins at the system level and progresses through Analysis, Design, Coding, Testing and Support.

Linear Sequential Model contains the following activities:

System / Information Engineering and Modelling: -

Because software is always part of a larger system (or business), work begins by establishing requirements for all system elements and then allocating some subset of these requirements to software. This system view is essential when software must interact with other elements such as hardware, people and database. System engineering and analysis encompass requirements gathering at the system level with a small amount of top-level design and analysis. Information engineering encompasses requirements gathering at the strategic business level and at the business area level.

In this project, very first I get to know how the processing is done in the social network system. When I had accepted this project the purpose is to develop software that should assists to generate the report. The software will serve them as an automated system in performing all the operation of the **KISAAN VRADDHI.**

Before starting this project or system there are some information's needed, they are:

1. First one is that understand about the working mechanism of The social site.
2. Find out that which type of functionality should be adopted by the proposed project.
3. Which type hardware and software platform will be most suitable for the proposed project?

As the proposal system was being maintained onto the form of paper based, literature relating to this system was available in the forms of various reports. Various documents were available to collect data about the shortcoming of the existing system. The system provides information that how the work is being done and how data are maintained which are useful for the user, what changes need to be made.

- **Requirement specification**

Problem clarifications in this case are much more difficult. In either case, before any further steps can be taken, the project requests must be clearly stating.

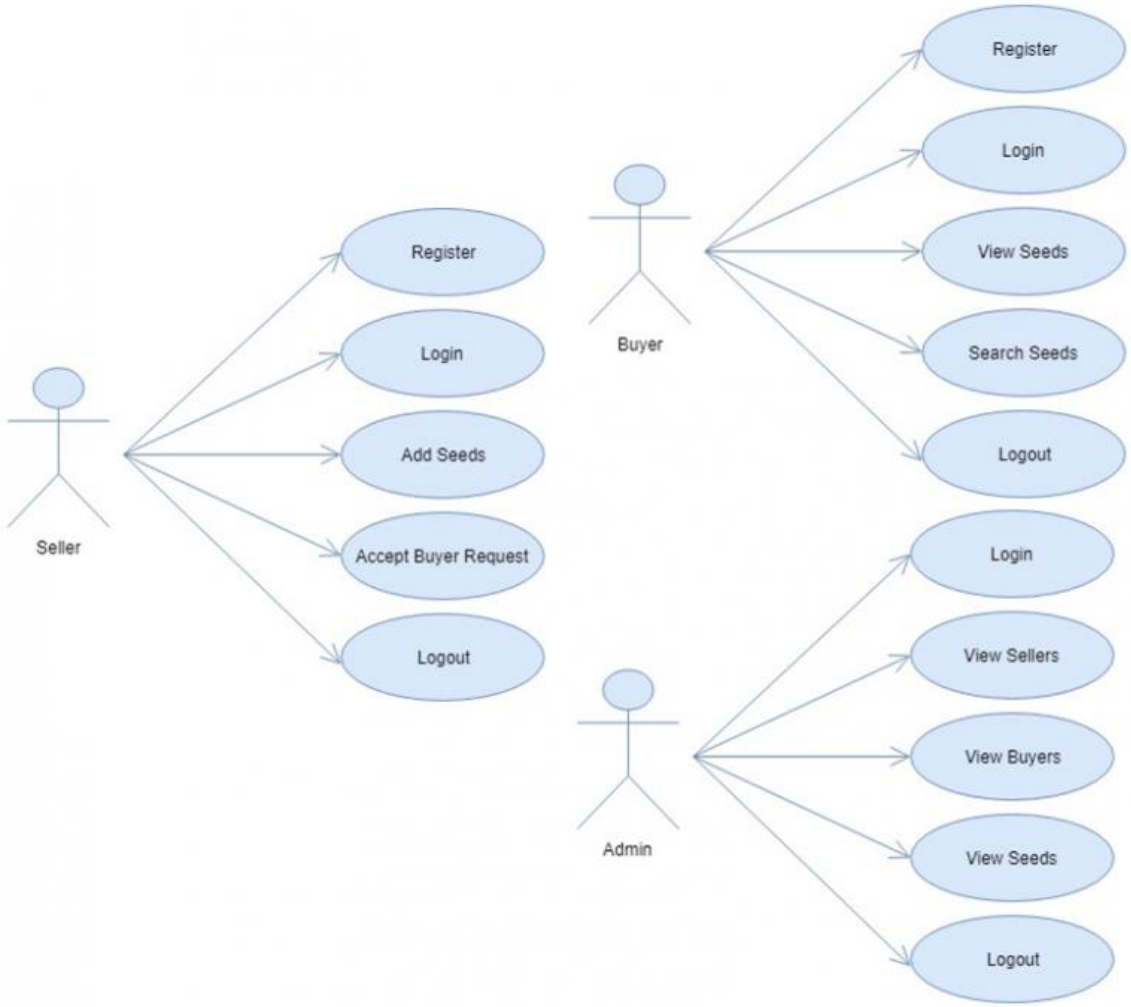
This phase (initial study) involves estimating whether or not a development project is worthwhile. Problems with the current automated or manual system are identified, as well as the benefits and costs of an alternative system. If the benefits seem to outright the costs (especially when compared with competing projects), a green signal may be given to continue the project, and detailed plans and schedules are drafted for making the system a reality.

The proposed solution to the user's problem may involve something between dramatic change (completely new system) and slight change to the present system. If the present system is manual and a computer system is proposed, the development project will probably be very large.

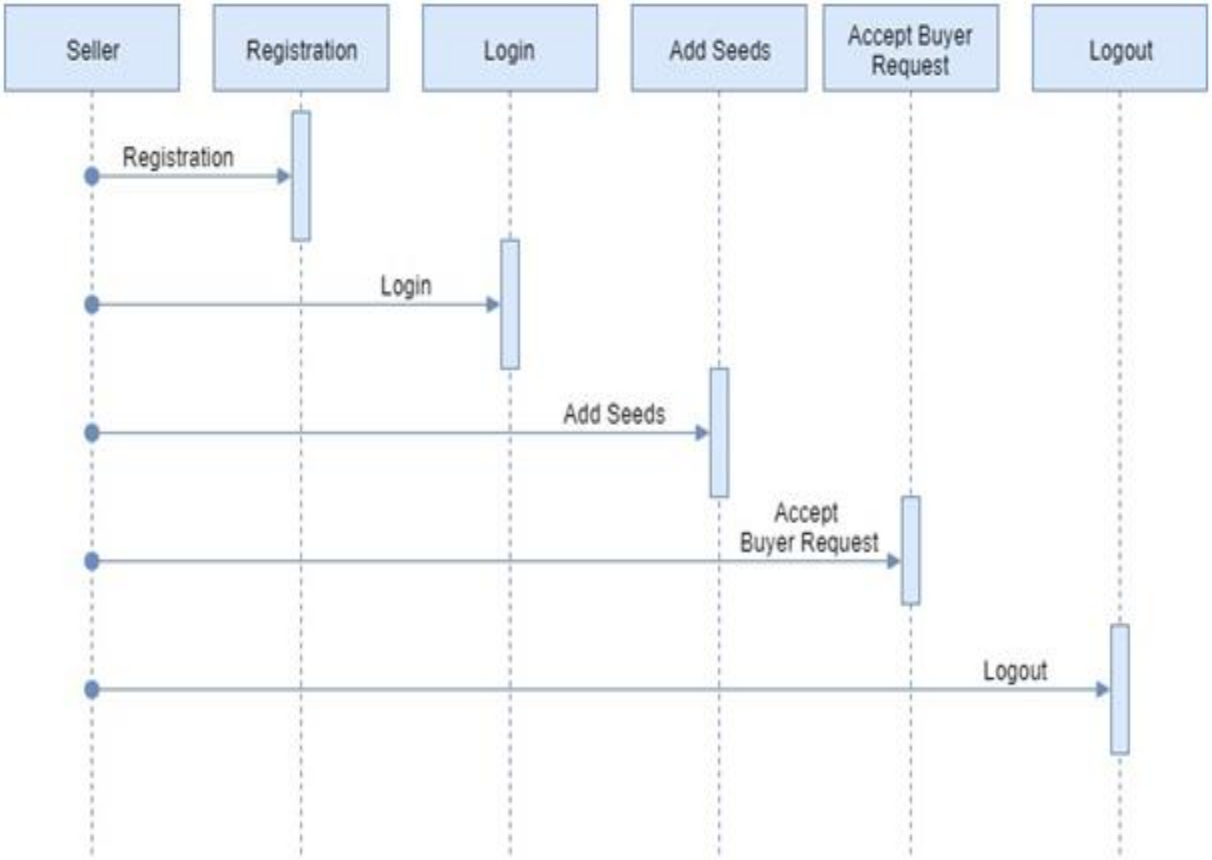
CHAPTER-5

Analysis Design

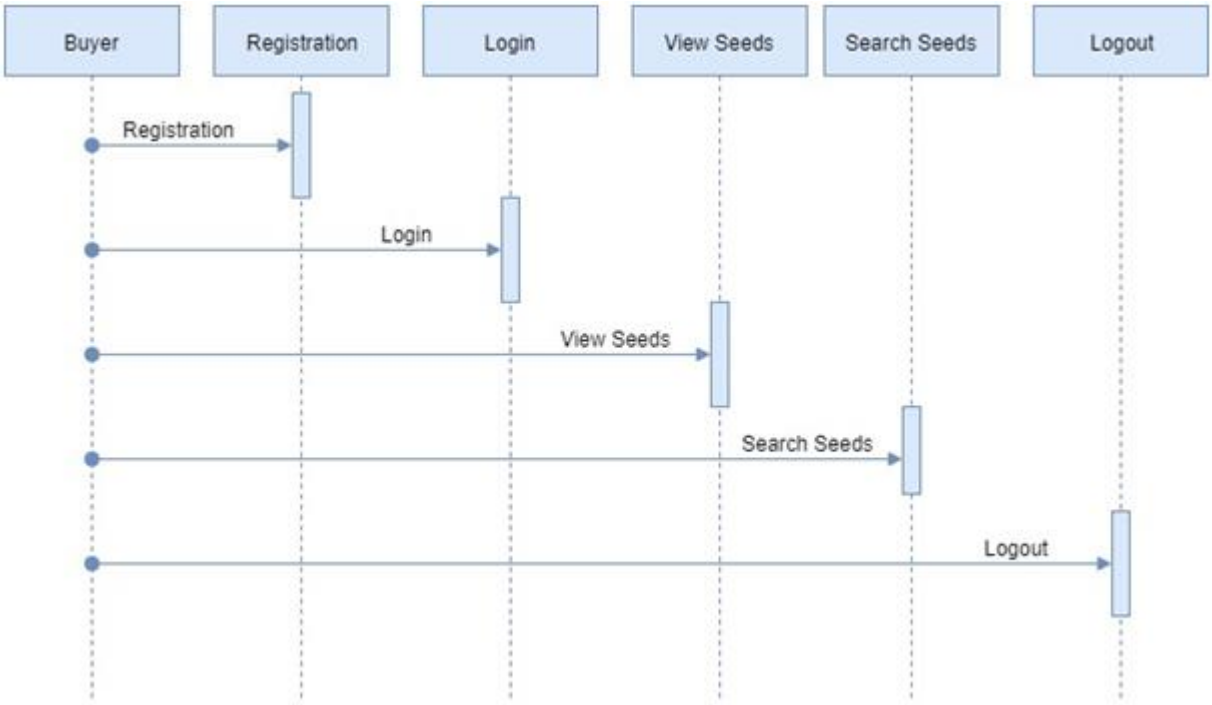
Use Case Diagram:



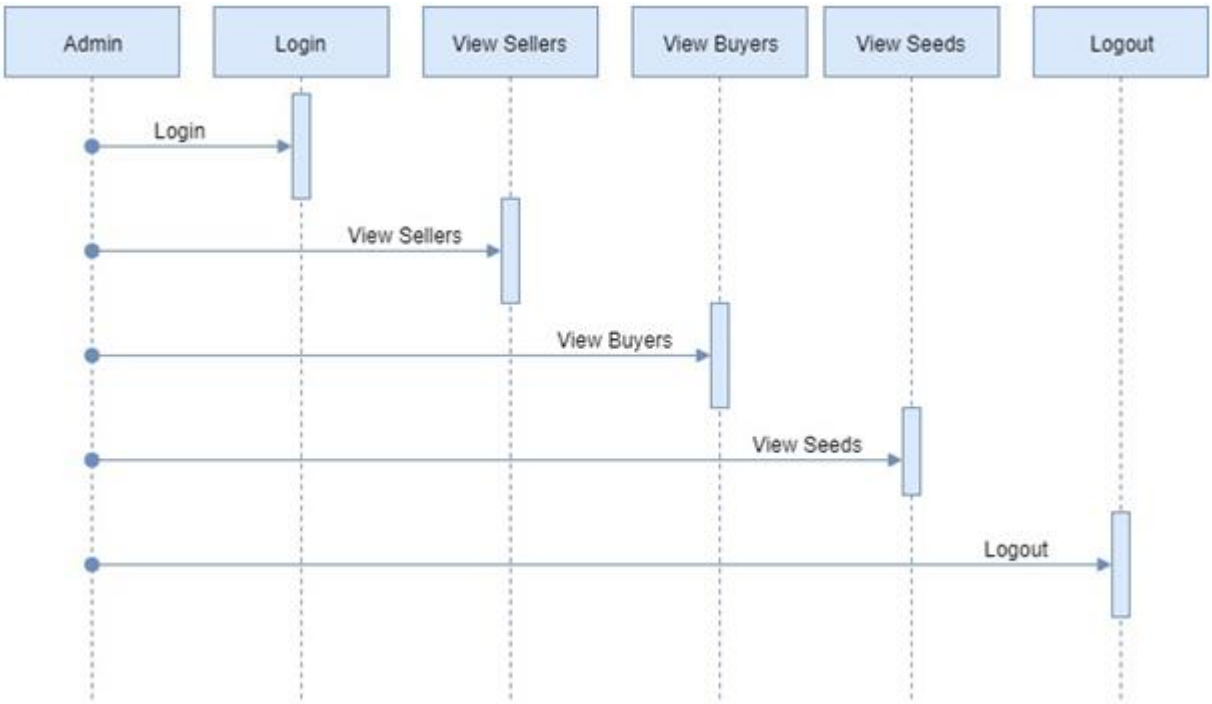
Sequence Diagram for Seller:



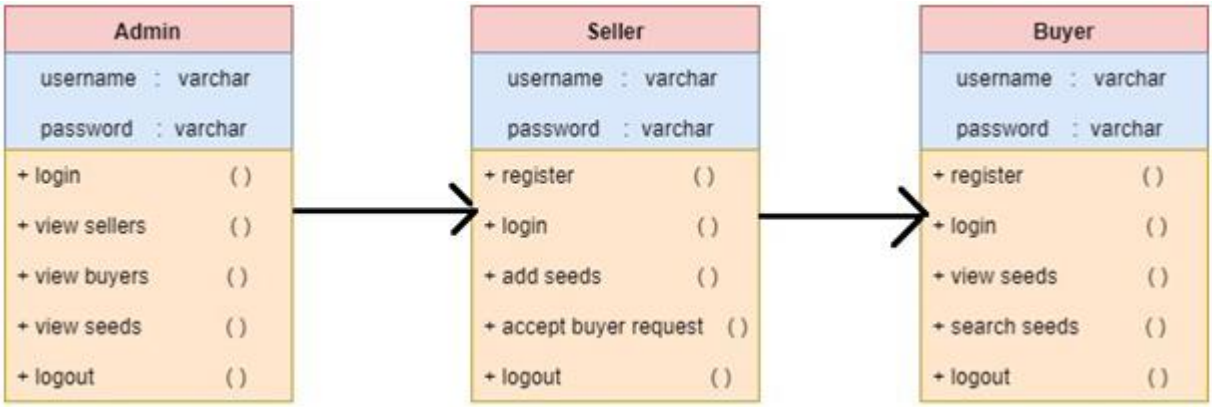
Sequence Diagram for Buyer:



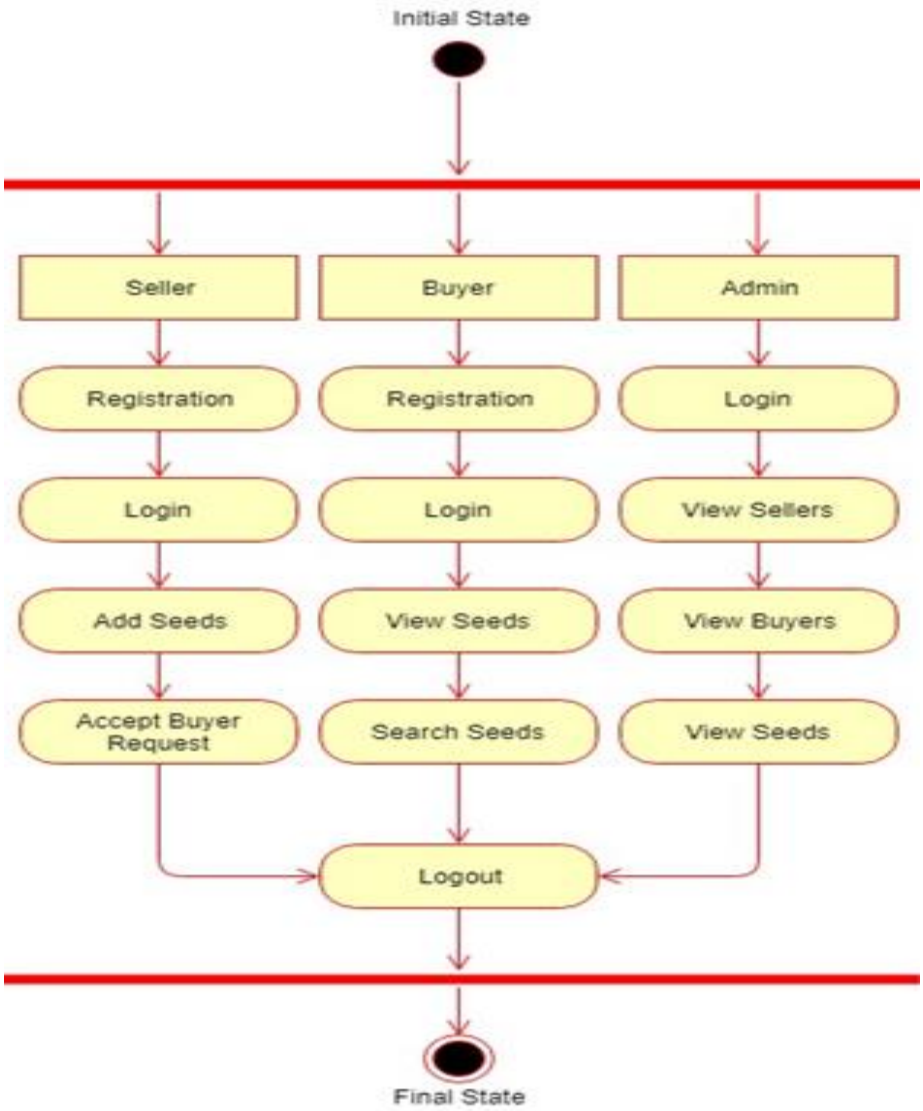
Sequence Diagram for Admin:



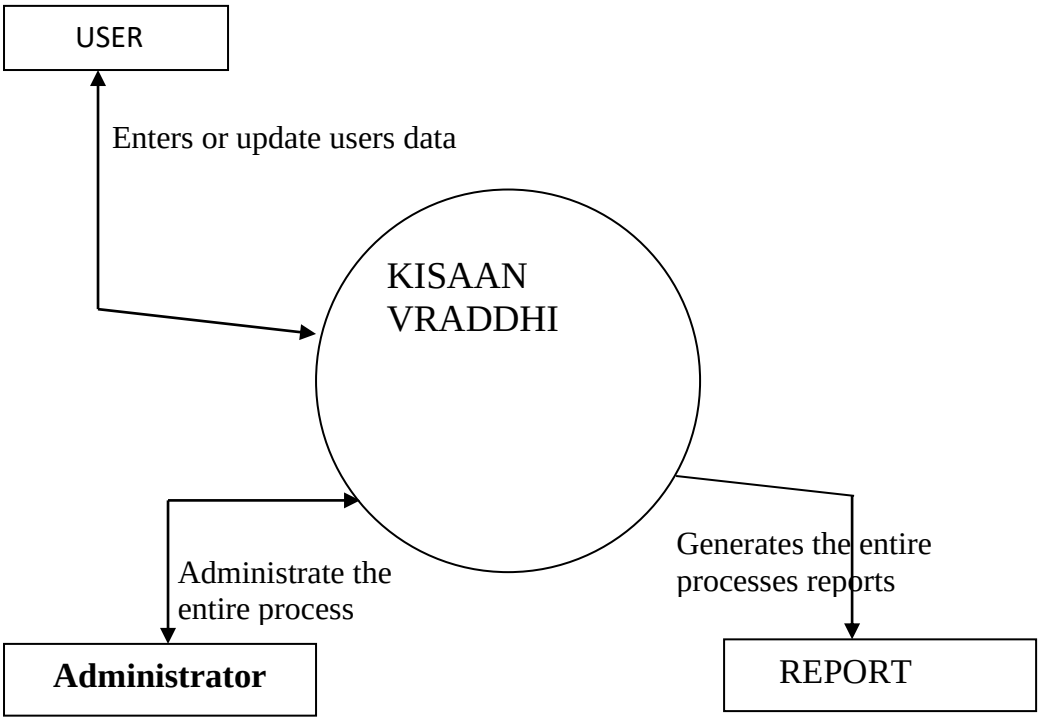
Class Diagram:



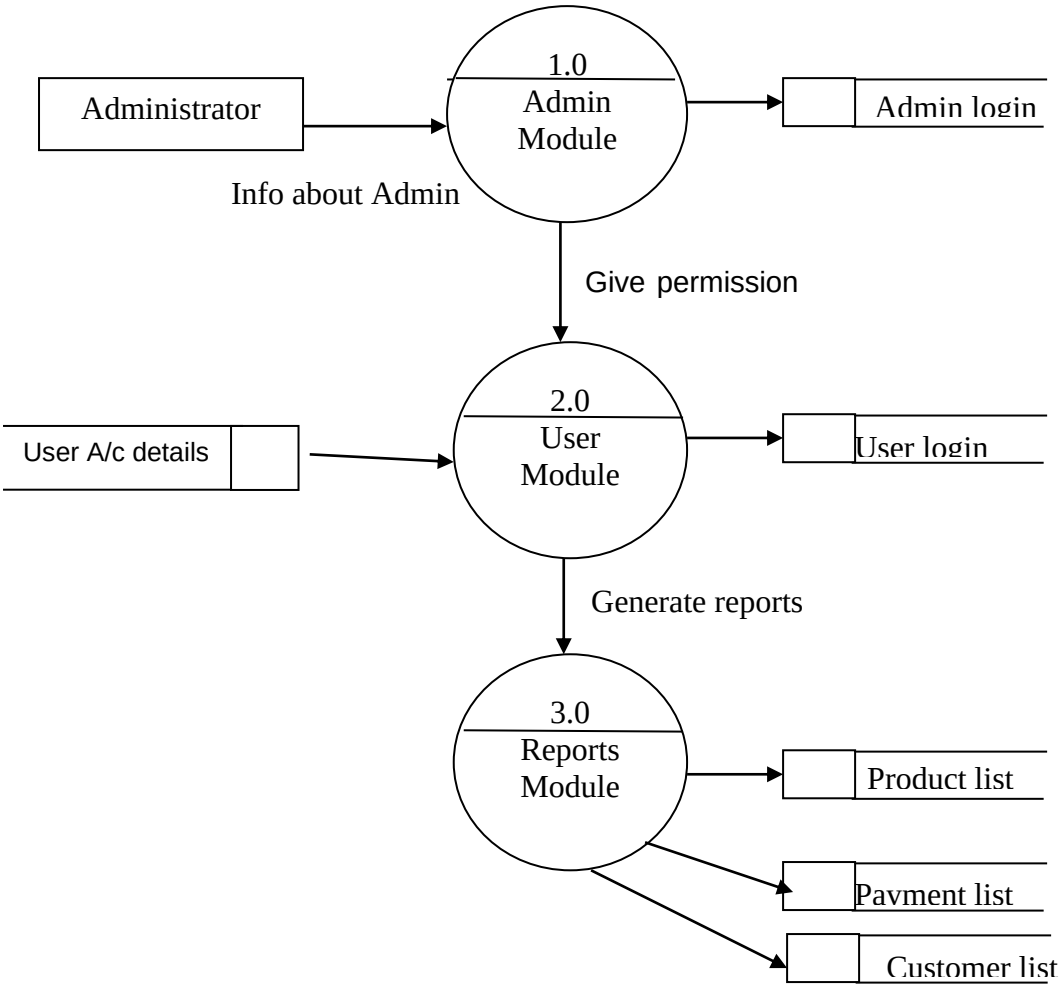
Activity Diagram:



Context Level DFD

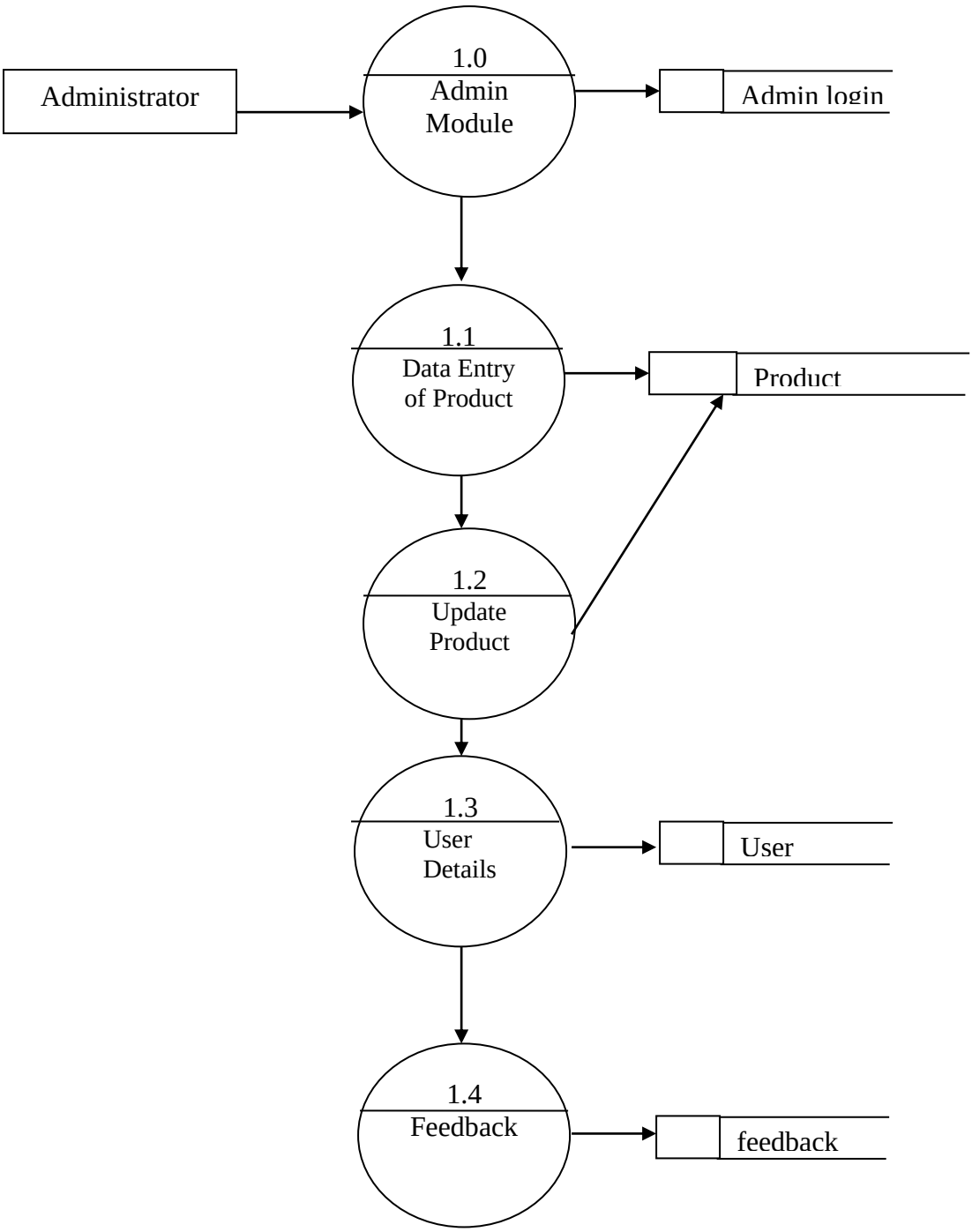


First Level DFD

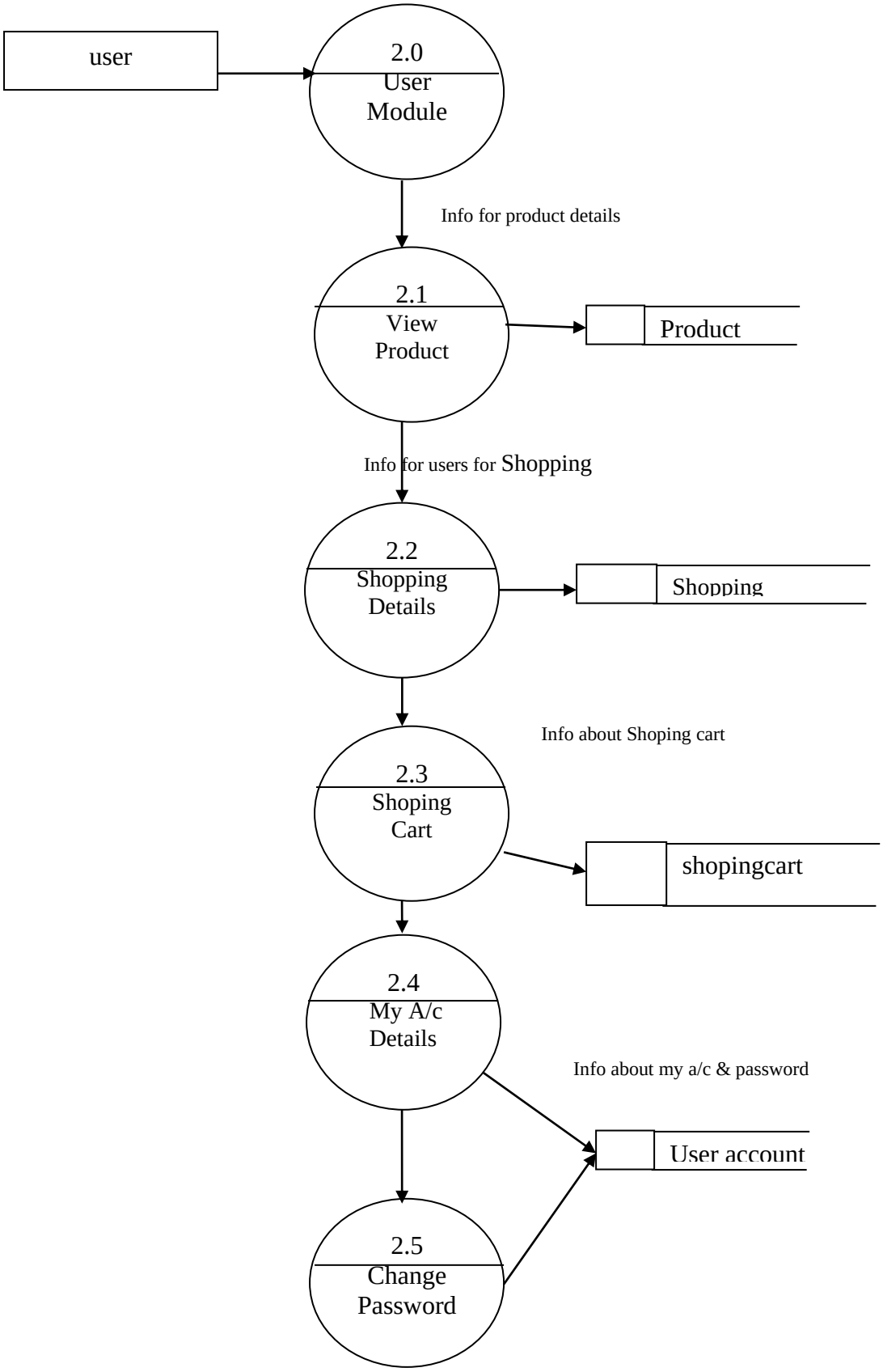


Second level DFD

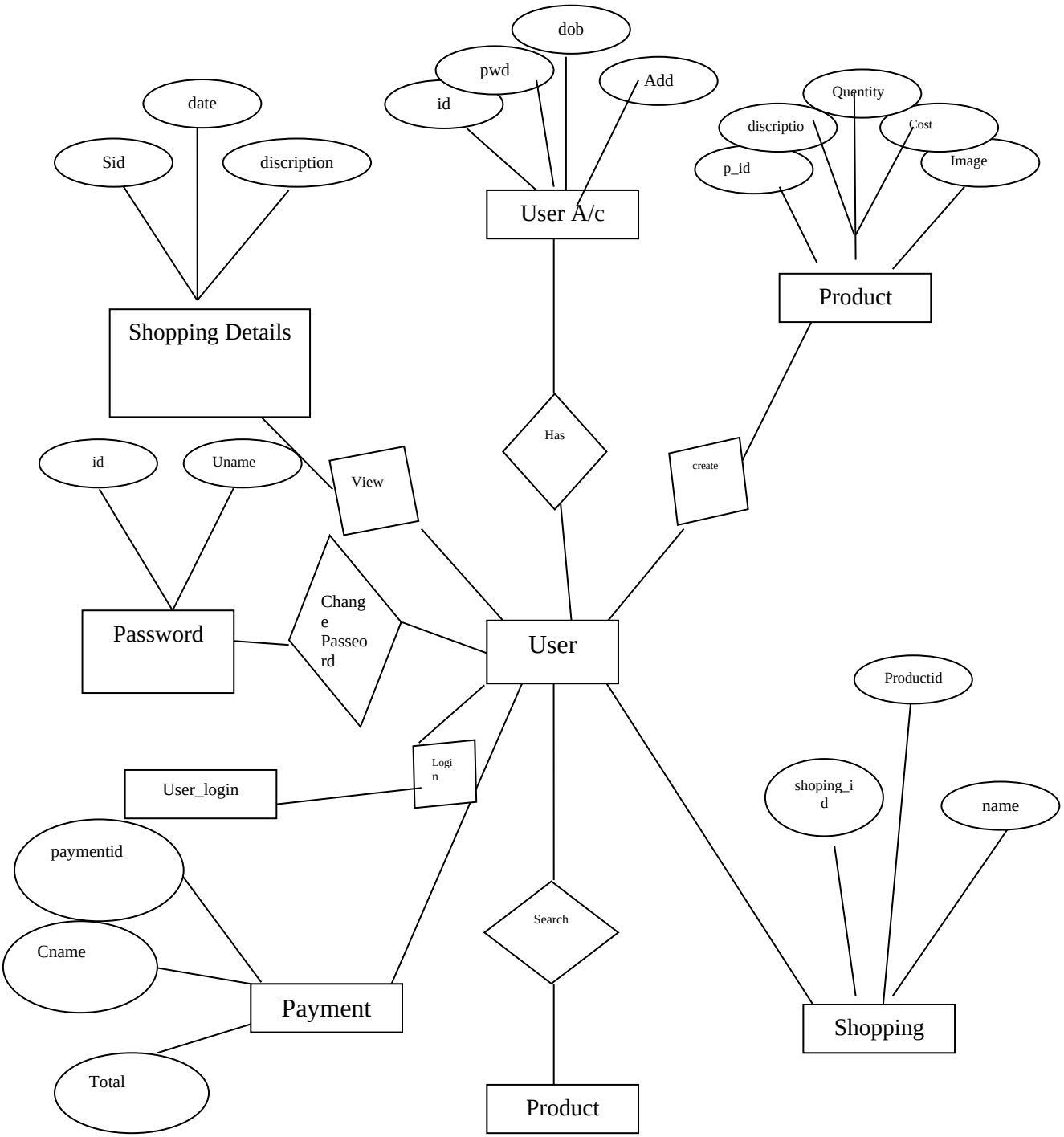
2nd Level DFD for Admin Module



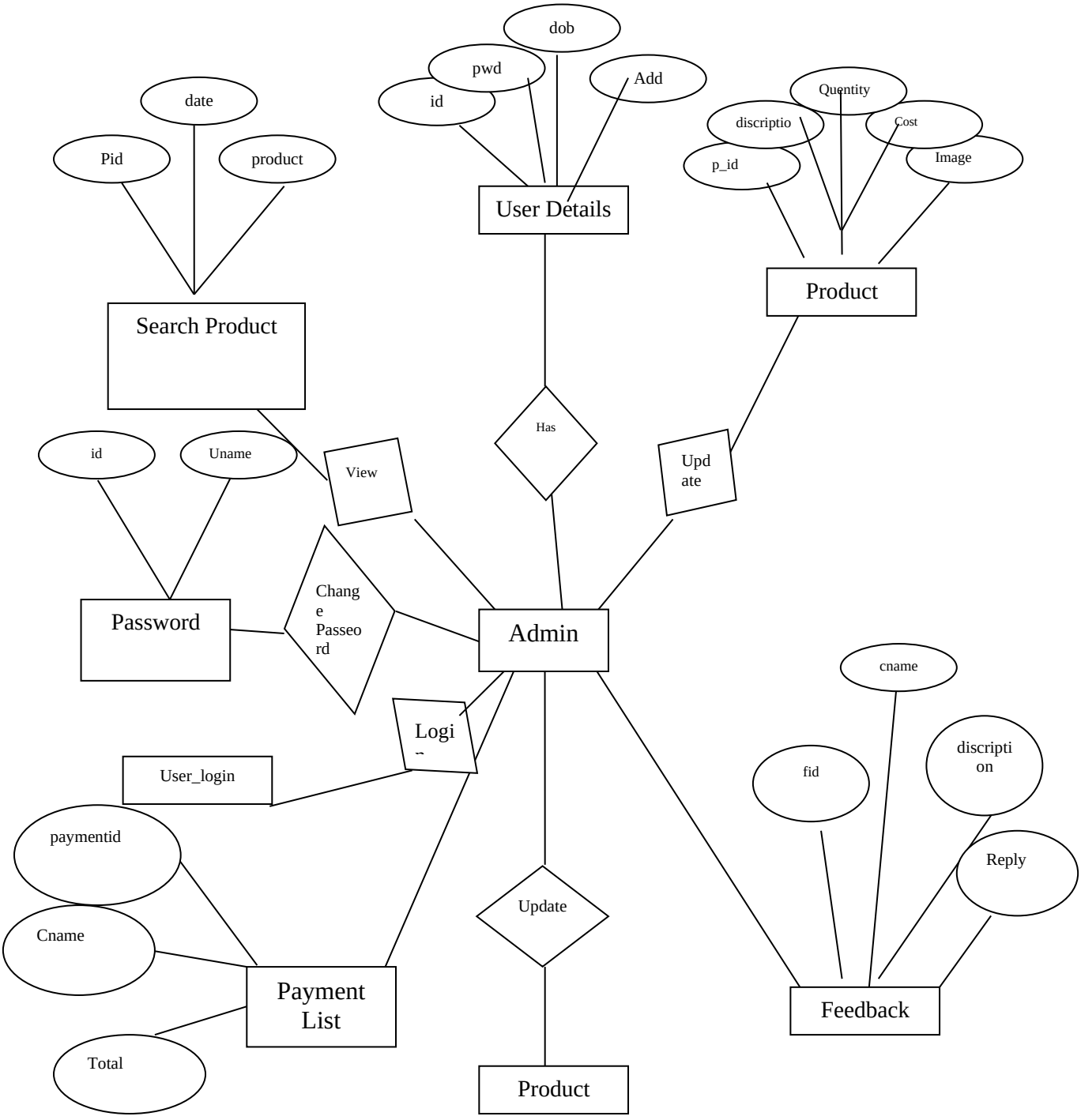
Second Level DFD for user module



ER- Diagram For User



ER- Diagram For Admin



A Complete Database Structure

1. User login

Fields	Data Type	Size	Constraints
login_id	Varchar2	10	Primary key
Password	Varchar2	10	Not null

2. Admin login

Fields	Data Type	Size	Constraints
login_id	Varchar2	10	Not null
Password	Varchar2	10	Not null

3. Payment

Fields	Data Type	Size	Constraints
Username	Varchar2	20	Not null
Product Name	Varchar2	20	Not null
Total	Varchar2	20	Not null
Date	Date		

4. New Product

Fields	Data Type	Size	Constraints
Product Id	Number	10	Primary key
Product Name	Varchar2	20	Not null
Discription	Varchar2	10	Not null
Quentity	Varchar2	30	Not null

Price	Varchar2	20	Not null
Image	Varchar2	100	Not null
video	Varchar2	100	Not null
Date	Varchar2	100	Not null

5. User Account Details

Fields	Data Type	Size	Constraints
User_id	Varchar2	10	Foreign key
User_name	Varchar2	20	Primary key
Password	Varchar2	20	Not null
Name	Varchar2	30	Not null
Gender	Varchar2	10	Not null
Dob	Date		
Mob no	Varchar2	10	
Address	Varchar2	20	

6. Feedback

Fields	Data Type	Size	Constraints
login_id	Varchar2	10	Foreign key
feedback	Varchar2	10	Not null
Customername	Varchar2	20	Not null
Date	Date	20	Not null
Reply	Varchar2	100	Not null

Number of modules and their description to provide an estimation of the student's effort on the project. Along with process logic of each Module.

Farmer

1. Data entry of new Product
2. Data entry From Feedback
3. Update Product
4. Update Feedback
5. Update Password

Seller modules

1. Data entry for Shoping Cart
2. Data entry for Payment
3. Data entry for Feedback
4. Update My Account

Reports module

1. Product list
2. Payment details
3. User Accounts detail

CHAPTER-6

TESTING

7.1 Testing Type

The testing of software means measuring or accessing the software to determine the quality. Testing is a measuring instrument for software quality with the unit of measurement being the number of defects found during testing.

Testing activities also help to achieve software quality. Testing is essential in the development of any system software. Testing is essential in the development of any software system. Testing is in order to access what the system actually does and how well expected to spend approximately40% of development cost and time in testing in order to achieve reasonable quality levels.

Levels of Testing

- Unit Testing
- Component Integration Testing
- System Testing
- Acceptance Testing

Unit Testing

Unit testing comprises the set of tests performed usually by the programmers prior to the integration of the unit in to a large Program. This is the lowest level of testing and is done by the programmer (Who develops it) who can test it in great detail. The function is done in isolation. This is where the most detailed investigation of internal working of the individual unit is carried out.

Component Integration Testing

When two or more tested components are combined into a larger structure, the testing process should look for errors in two ways:-

- In the interface between the components
- The functions, which can be performed by the new group

System Testing

After in integration testing is completed, the entire system is tested as whole. The functional specifications or requirements specification are used to derive the test case. At this level the system testing looks for errors in the end-to-end functional quality. Attributes such as performance, reliability,

Volume, stress tolerance, usability, maintainability, security etc. Independent testers can carry out this testing.

Acceptance Testing

After system testing was complete, the system was handed over to the training section. Acceptance testing mark the transaction from ownership by the develop to ownership by the users. The acceptance test is different in nature to the development testing in three ways.

Firstly, it is a responsibility of the accepting section rather than development department (computer Centre).

Secondly, the purpose of the acceptance testing was to find out whether the software is working rather than trying to find errors.

Thirdly, it also includes the testing of user's department's working practices to ensure that the computer software will fit into clerical & administrative procedures of the concerned section well.

Acceptance testing gave confidence to the user that the system is ready for operational use.

Security concern of computer where software is to be installed:

- Use of name-brand hardware with extensive fault-tolerance. Fault-tolerance features can keep the computer from going down even if a single piece of hardware inside of it fails.
- Hardware and software maintenance.
- Facility security, network security, and firewall services.
- Guaranteed service level agreement. Remember to insist on the highest level of service available – 99% availability might seem great, but it means that our computer might be down for than three days a year.
- Battery and generator power.
- Backup devices like tap drive/zip drive or cd writer should install. User should keep backup of database every day so that it could save data during crisis time

Protecting the database

To secure the database, the following steps are taken:-

- The server logged off and physically locked up when it has not use.
- The database must be not shared on network. If it is shared then change the properties.
- The database on oracle provides fine-grained permission mechanism that allows protecting particular database tables and columns. The table and column must be the restricted to administrator of database so that it is not update by the any one.
- Using NTFS (NT file system) security to further access to the database, it is used by using ntfs permission dialog to further protect sensitive information.

TESTING OBJECTIVES

- No bugs blocks the execution of tasks
- System states are visible
- All factors affecting the output are visible
- Functional simplicity
- Distinct output is generated for each input

Debugging

Debugging occurs as a consequence of successful testing. Debugging refers to the process of identifying the cause for defective behavior of a system and addressive that problem. In less complex terms- fixing a bug. When a test case uncovers an

Error, debugging is the process that results in the removal of the error. The debugging process begins with the execution of a test case. The debugging process attempts to match symptoms with cause, thereby leading to error correction. The following are two alternative outcomes of the debugging:

- the cause will be found and necessary action such as correction or removal will be taken.
- The cause will not be found.

Characteristics of bugs

1. The symptoms ant the cause may be geographically remote. That is, the symptoms may appear in one part of a program. While the cause may actually be located at a site that is far removed. Highly coupled program structures exacerbate this situation.
2. The symptoms may disappear (temporarly) when another error is connected.

3. the Symptom may actually be caused by non error(e.g, round-Off inaccuracies).
4. The symptoms may be caused by human error that is not easily traced.
5. The symptom may be a result of timing problems, rather than processing problems.
6. It may be difficult to accurately reproduce input conditions(e.g, a real-time application in which input ordering is indeterminate).
7. The symptom may be intermittent. This is particularly common in embedded systems that couple hardware and software inextricably.
8. The symptoms may be due to causes that are distributed across a number of tasks running on different processors.

7.2 Validation Checks

Not Successful Back to Login

There are six types of validations:

1) Intrinsic control: In this control text Box, label, drop down list are use for simple input and output.
2) Rich control: Rich control have a two control `Add Repeater` and 'Calendar Control'.
3) Transfer Control: This control used to redirect pages to next page like, Buttton, Hyperlink, linkButtons.
4) Validation control: There are six control:-
    - Required Filled Validator:- this control are using for check the requirement is fulfill or not.
    - Compare Validator:- This control are used for comparing two values with help of control To Validate and Compare to Validate

The Type are taken in compare Validator are following:-

a) String
b) Integer
c) Double
d) Date
e) Currency

Operator is used to specify a type are following:-

a) Equal
b) No Equal
c) Greater Than
d) Greater than equal
e) Less than
f) Less than equal

- **RangeValidator:-** the range validator is used to check if the value of control lies within a range. The Range can be specified with the help of two control

a) Min
b) Max

- **RegularExpressionValidator:-** a pre specified format can excepted only if they form a part of a particular pattern, this usually occurs in Phone no., credit card number or E-mail

  Address from user. The phone no. should be numeric. This is made possible by regular Expression Validator Control. The pattern to which the value must specified in validationExpression property. The value can be checked agains mini Pattern or expressions by separating each expressions with a pipe Sign and enclosed expression in round bracket.

- **CustomValidator:-** custom validator control can be used to provide validator in case all validator control are not enough to validate the input.
- **Validation Summary:-** validation error message on the Web page can be display in two way. The errors can either be displayed as when the user line the control or summary of error can be display together. This control can be use to produce such as summery. The error can be view in the form of list bullet by setting display made.

7.3 CODE EFFICIENCY

MEASURES OF CODE EFFICIENCY

The code is designed with the following characteristics in mind.

1. Uniqueness: The code structure must ensure that only one value of the code with a single meaning is correctly applied to a give entity or attribute.
2. Expandability: The code structure are designed for in a way that it must allow for growth of it's set of entities or attributes, thus providing sufficient space for the entry of new items with in each classification.
3. Conciseness: The code requires the fewest possible number of positions to include and define each item.
4. Uniform size and format: Uniform size and format is highly desirable in mechanized data processing system. The addition of prefixes and suffixes to the root code should not be allowed especially as it is incompatible with the uniqueness requirement.
5. Simplicity: The codes are designed in a simple manner to understand and simple to apply.
6. Versatility: The code allows modifying easily to reflect necessary changes in conditions, characteristics and relationship of the encoded entities. Such changes must result in a corresponding change in the code or coding structure.
7. Sortability: Reports are most valuable for user efficiency when sorted and presented in a predetermined format or order. Although data must be sorted and collaged, the representative code for the date does not need to be in a sortable form if it can be correlated with another code that is sortable.
8. Stability: Codes that do not require to be frequently updated also promote use efficiency. Individual code assignments for a given entity should be made with a minimal likelihood of change either in the specific code or in the entire coding structure.
9. Meaningfulness: Code is meaningful. Code value should reflect the characteristics of the coded entities, such as mnemonic features unless such a procedures results in inconsistency and inflexibility.

OPTIMIZATION OF CODE

A good program is not the one that solves the intended problem alone but the one that does it efficiently. An ideal compiler should produce target code that is as good as can be written by hand crafted meticulously to run on the target machine in the most efficient manner both in terms of time of execution and memory requirements. The reality however is that this goal is achieved only in limited, cases and that too with difficulty. Nonetheless, the code produced by straight forward compiling algorithms can often be made more space and time efficient. This is accomplished by applying transformations on the produced code. These transformations aiming at optimization of compiled code are known as code optimization and compilers that apply code improving transformations are called optimizing compilers.

The optimization may be machine dependent or machine independent. A machine independent optimization is a set of program transformations that improve the target code without taking into consideration any properties of the target machine. Machine dependent optimizations, such as register allocation and utilization of special machine instruction sequences, on the other hand, depend on the target machine.

The overall performance of a program can be effectively improved if we can identify the frequently executed parts of a program and then make these parts as efficient as much as possible. According to Pareto principle, most programs spend ninety per cent of their execution time in ten percent of the code. While the actual percentages may vary, it is often the case that a small fraction of a program accounts for most of the running time. Profiling the run-time execution of a program on representative input data accurately identifies the heavily traveled regions of a program. Unfortunately, a compiler does not have the benefit of sample input data, so it must make best guess as to where the program hot spots are.

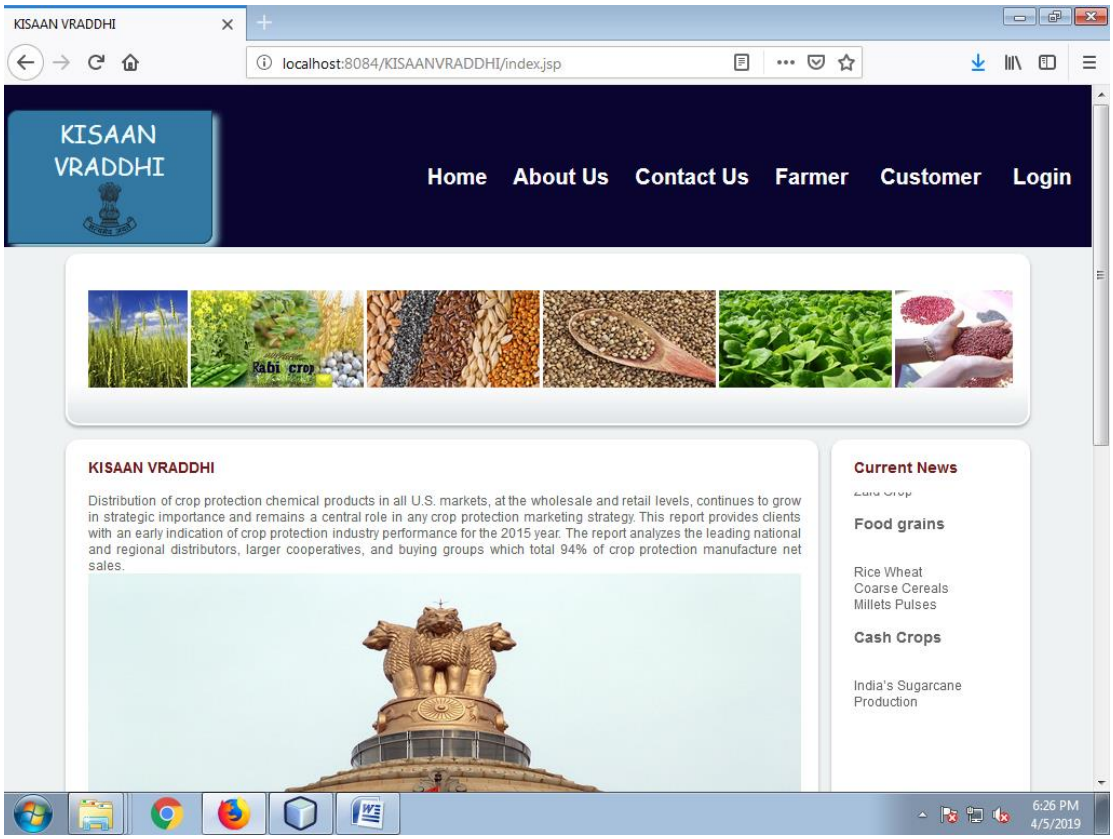
In practice, the program's inner loops are good candidates for improvement. In a language that emphasizes control constructs like while and for statements, the loops may be evident from the syntax of the program; in general, a process called contra/flow analysis identifies loops in the flow graph of a program.

The best technique for deciding what transformations are worthwhile to put into a compiler is to collect statistics about the source programs and evaluate the benefit of a given set of optimizations on a representative sample of real source programs

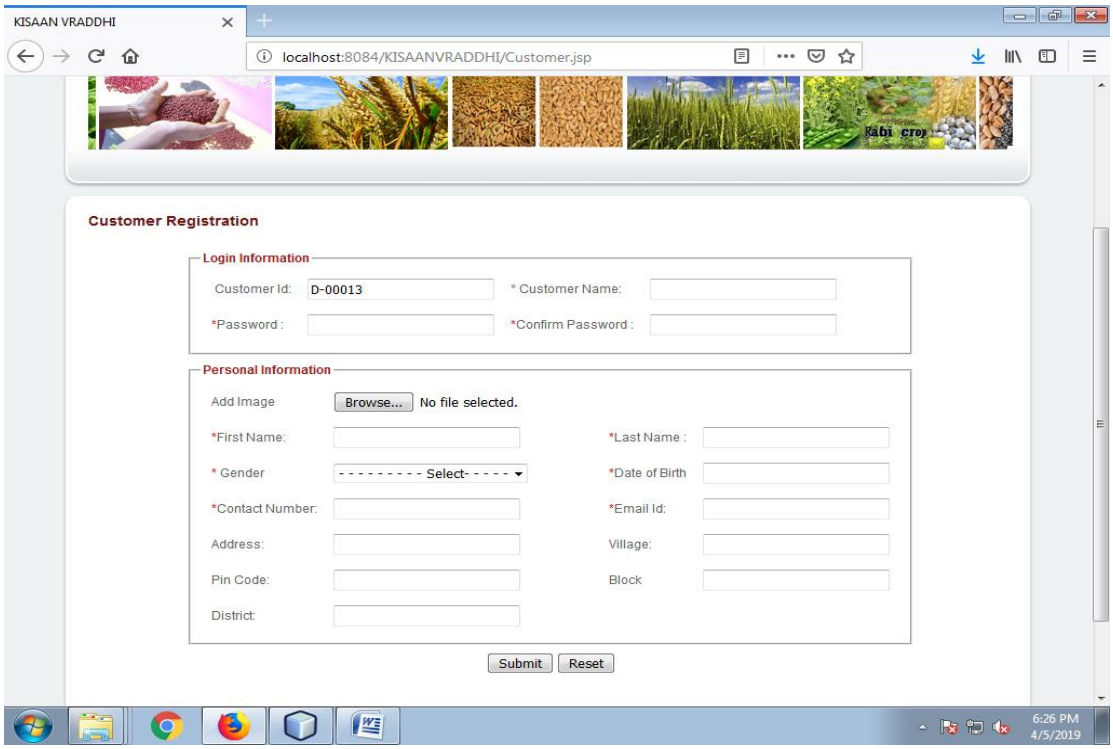
CHEPTER-7

INPUT AND OUTPUT SCREENS

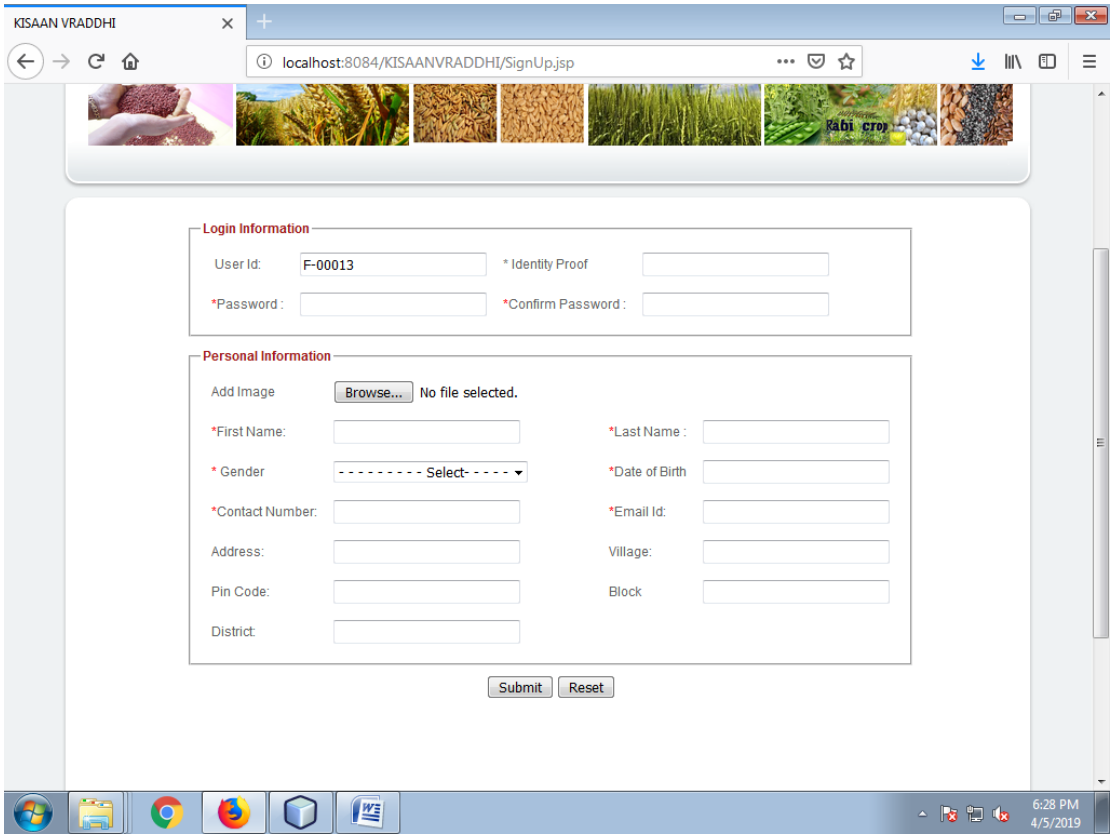
Home Page



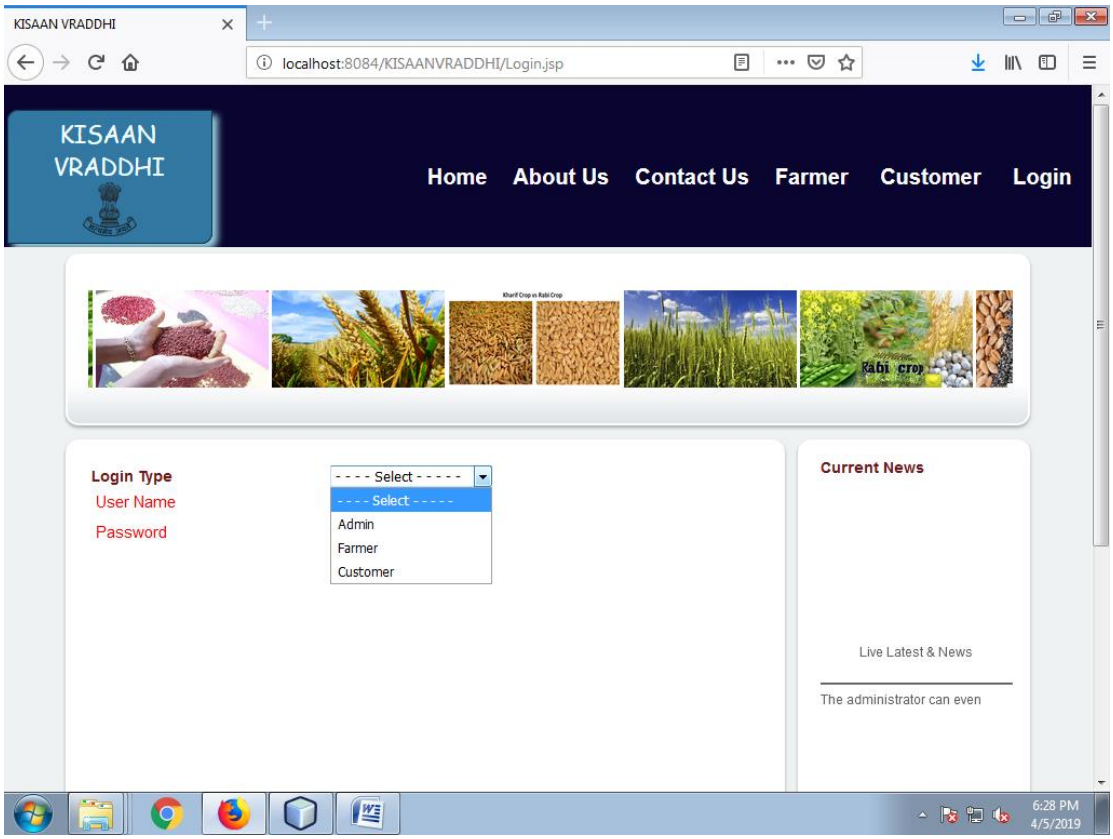
Citizen Registration



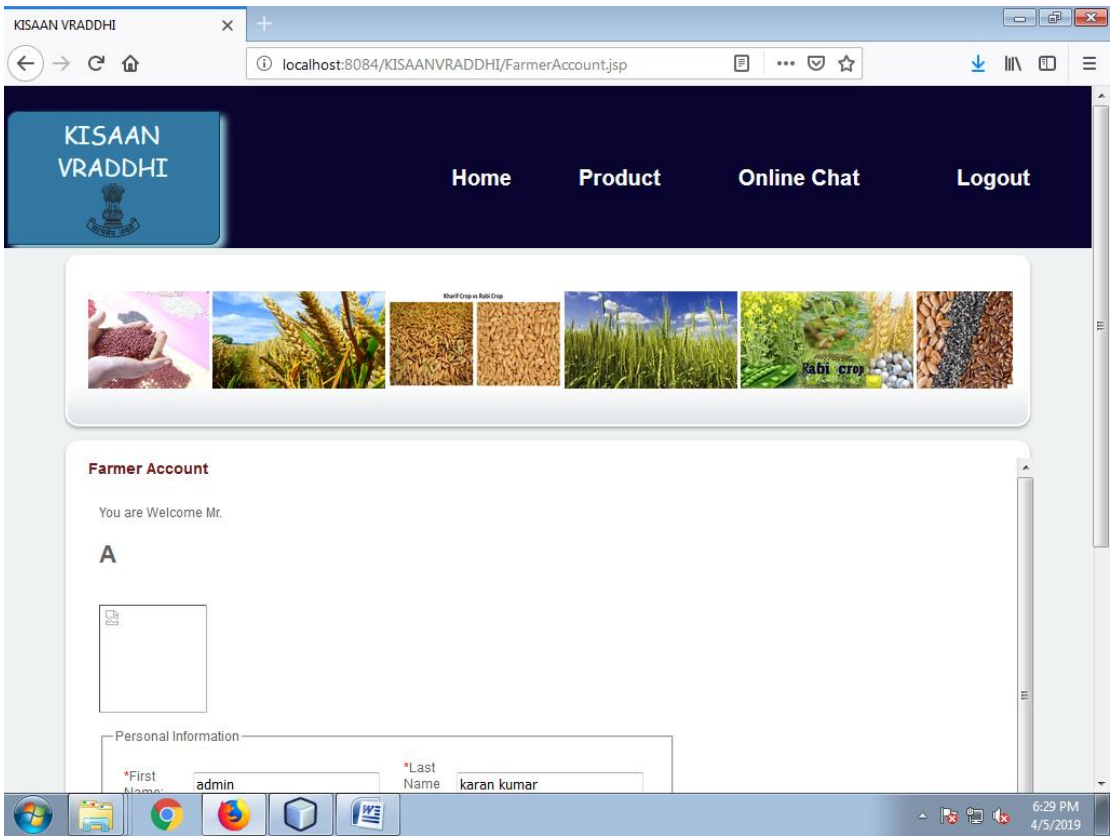
Farmer



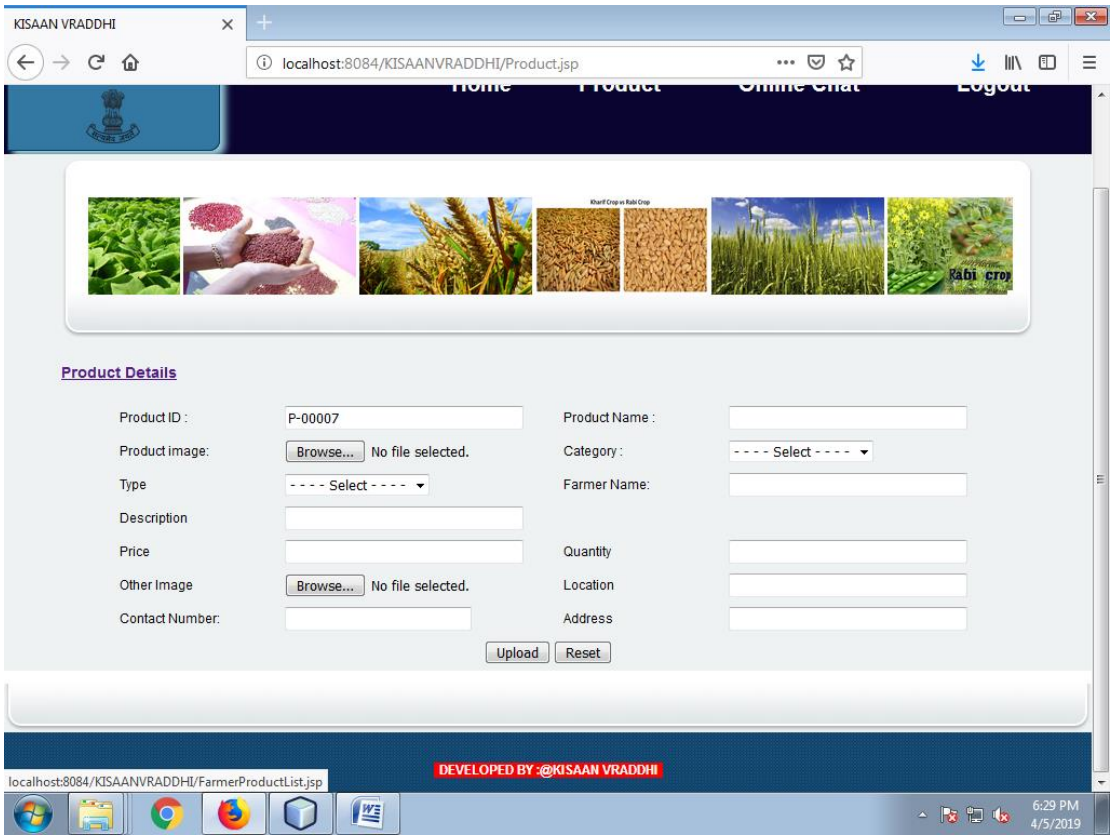
LOGIN



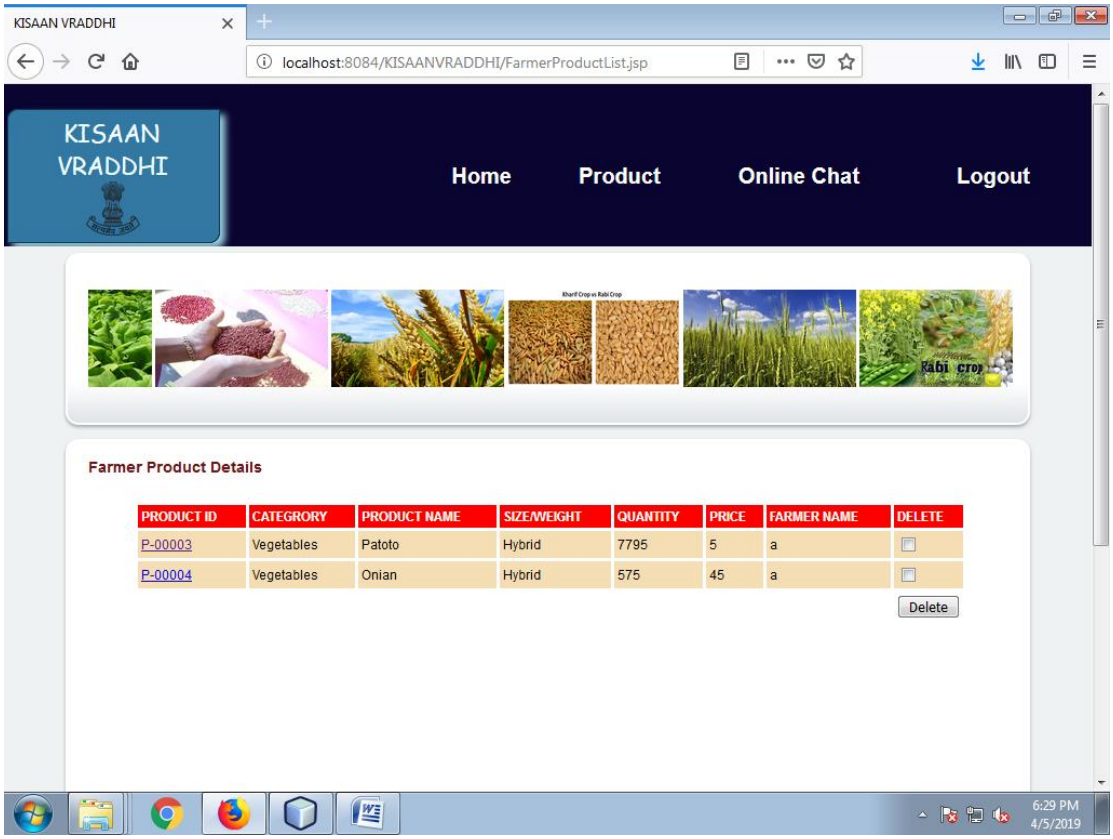
FARMER HOME PAGE



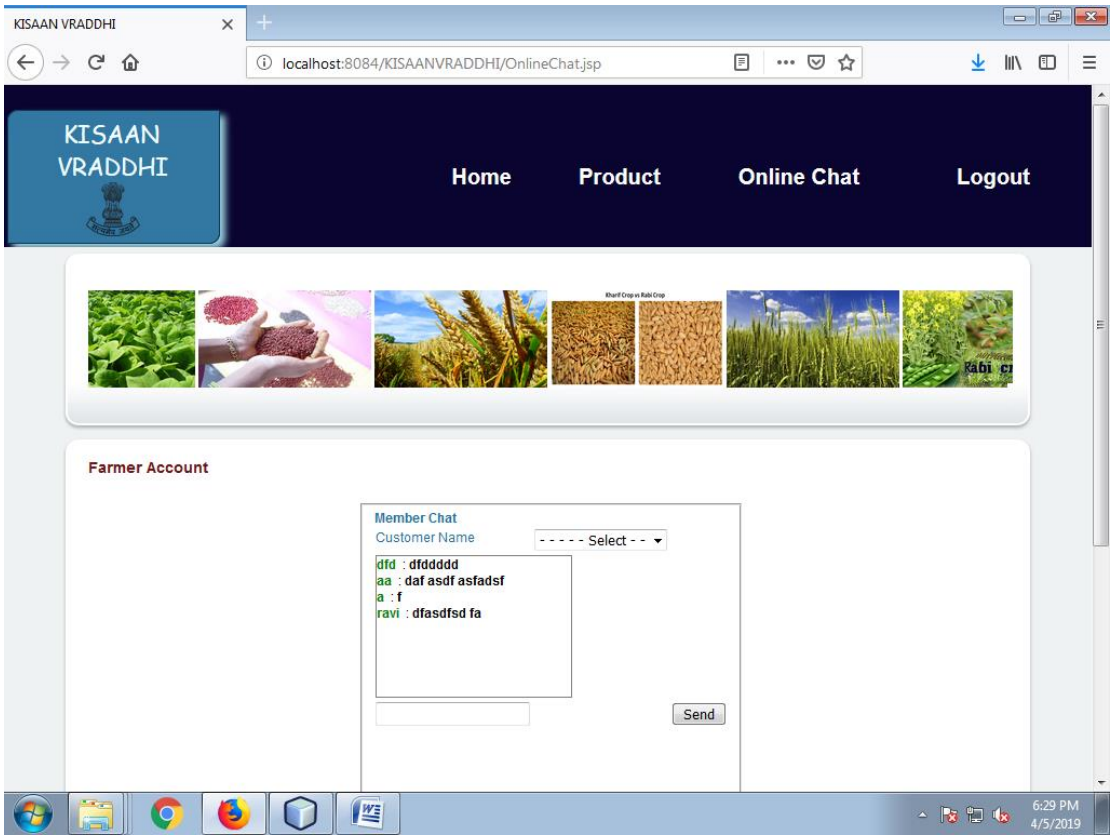
PRODUCT



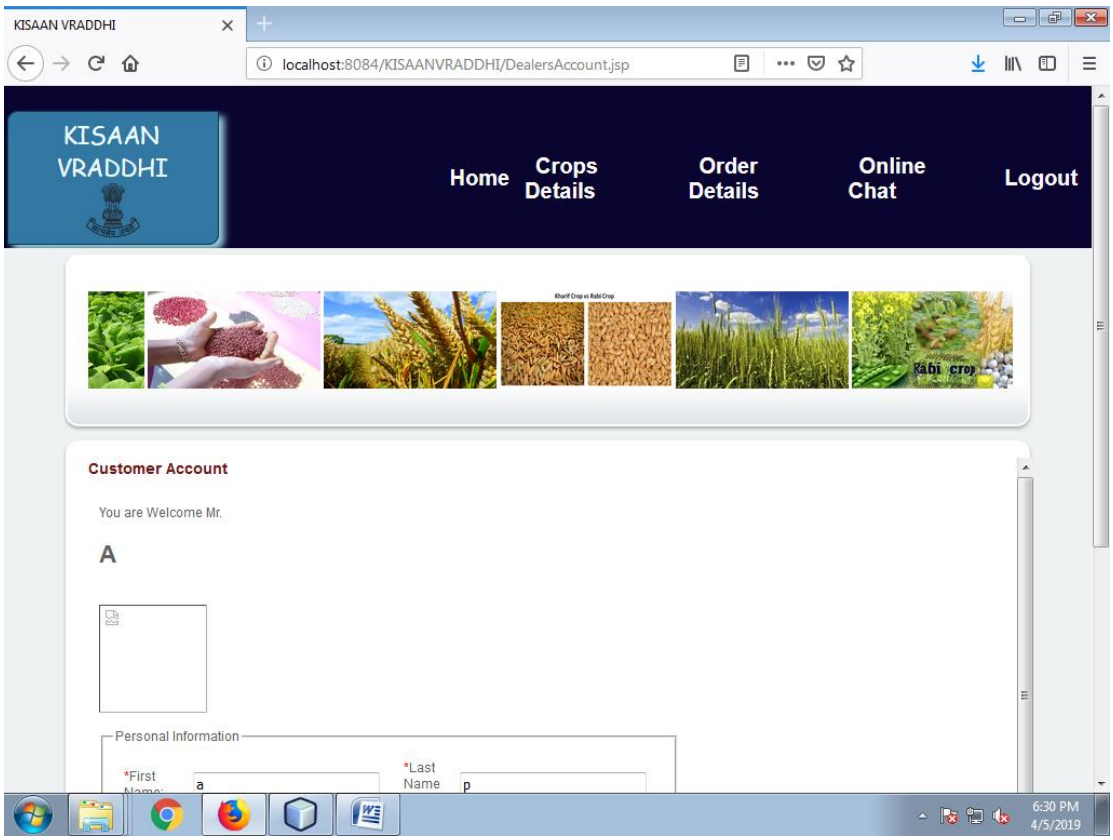
PRODUCT DETAILS



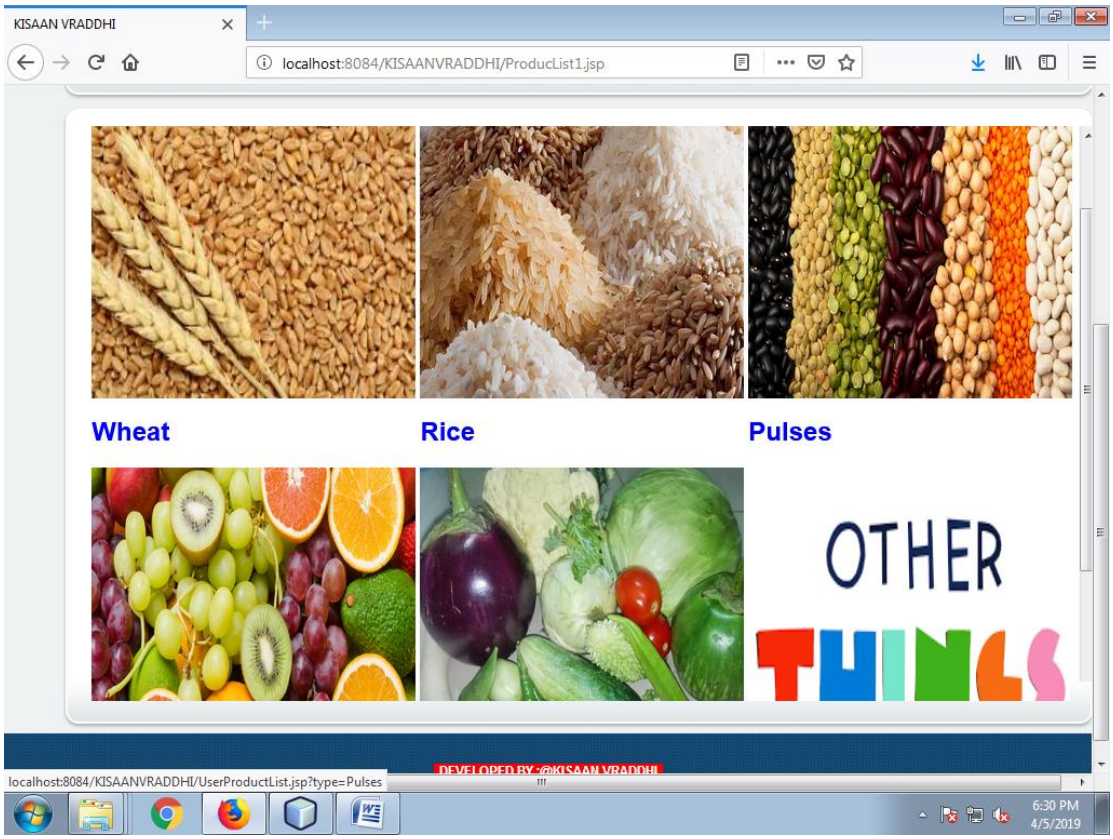
ONLINE CHAT



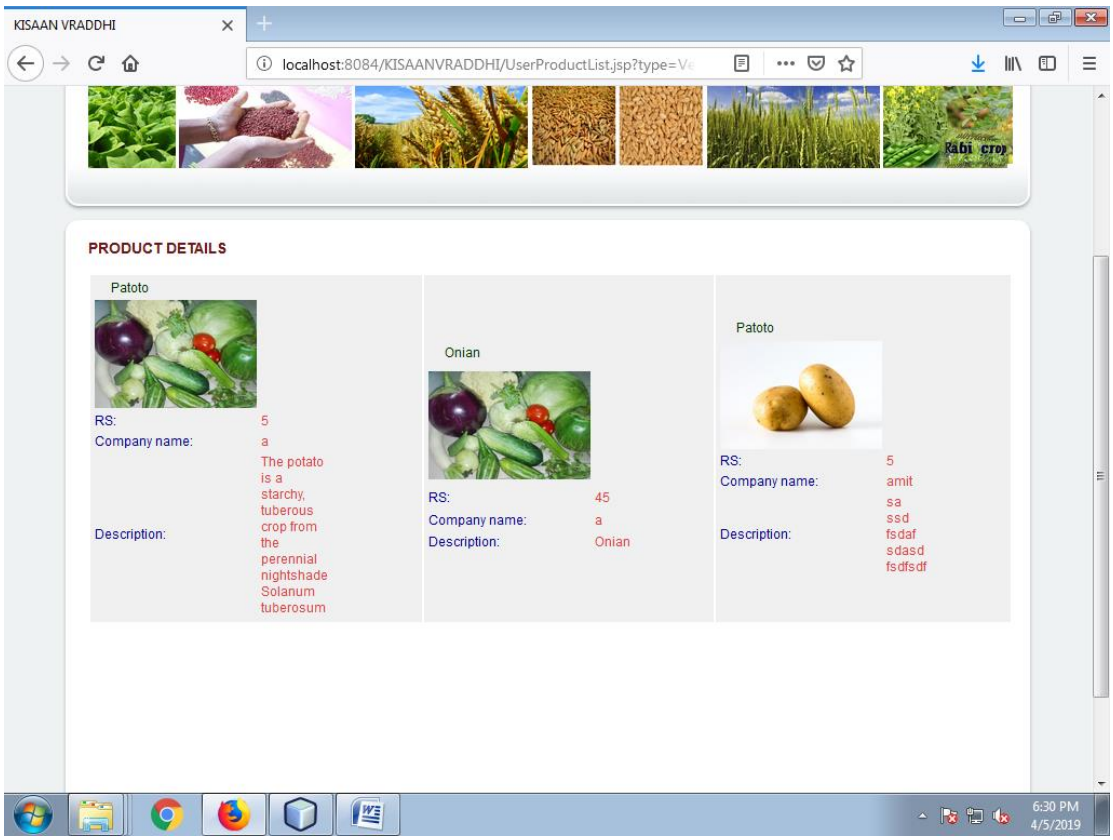
CUSTOMER HOME



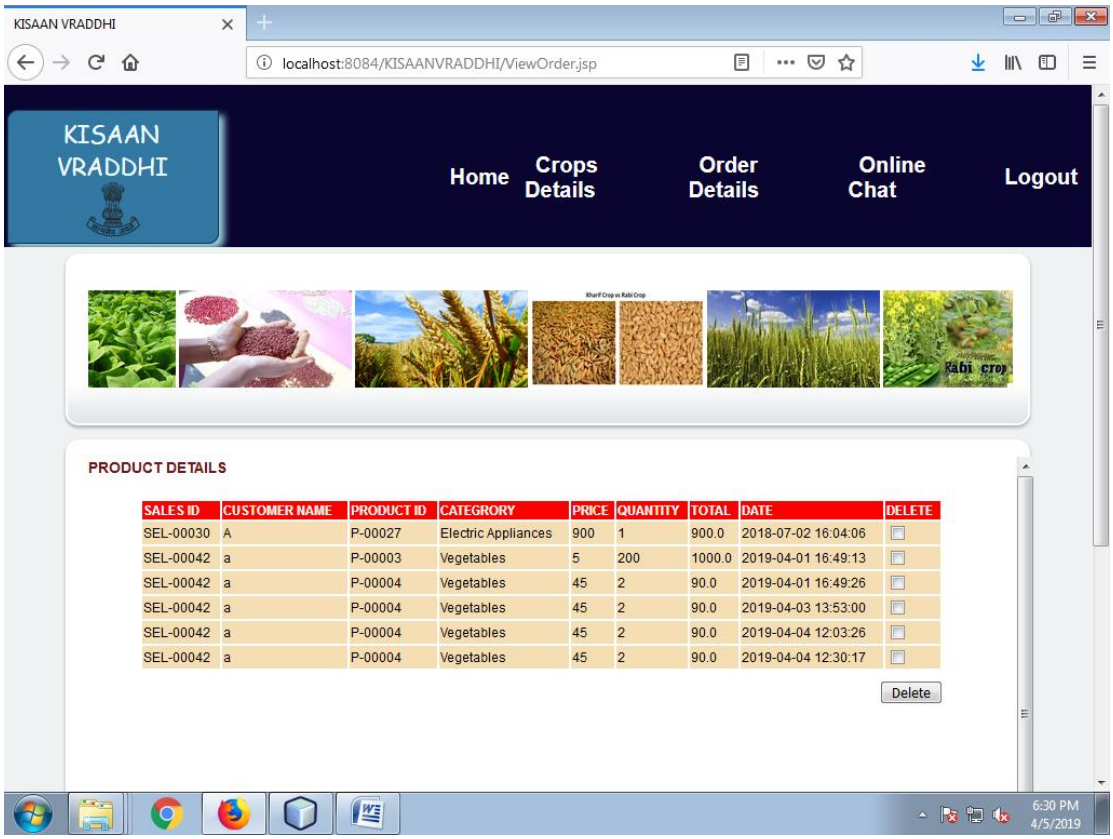
CROPS DETAILS



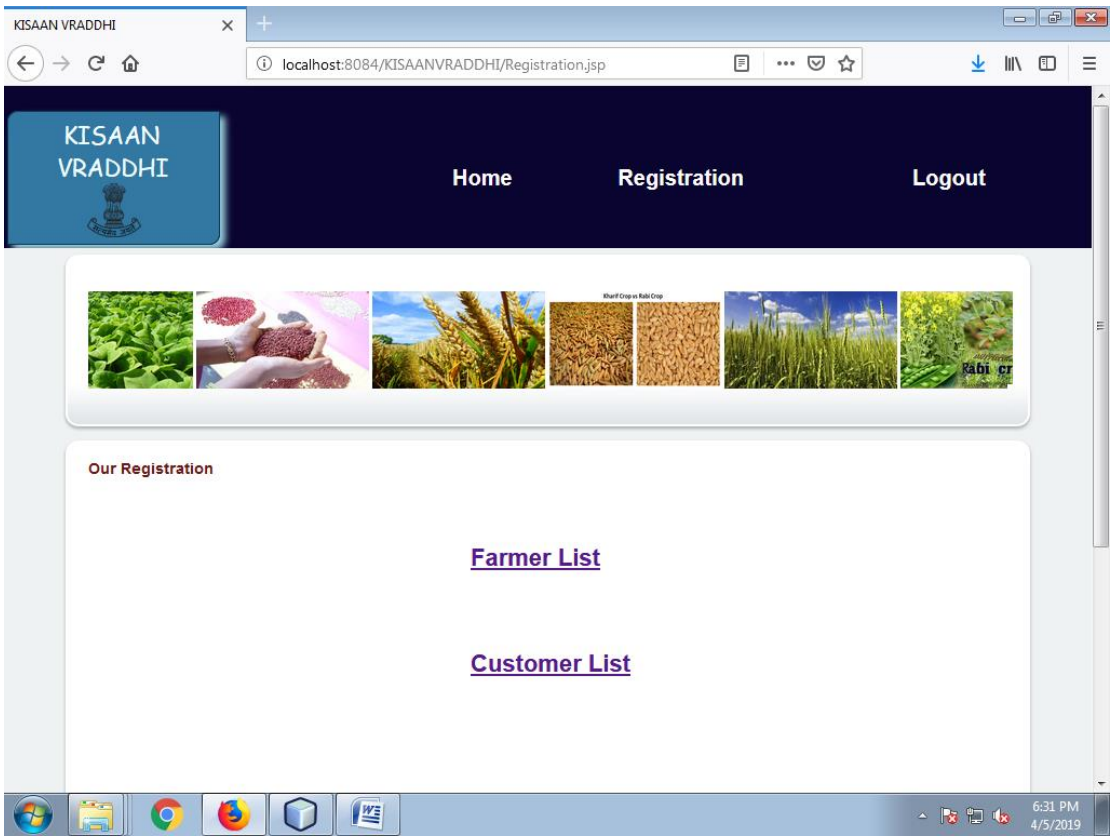
CROPS DESCRIPTION



ORDER DETAILS



ADMIN HOME PAGE



CHAPTER-8

IMPLEMENTATION OF SECURITY FOR THE SOFTWARE DEVELOPED

SYSTEM SECURITY MEASURES

To do an adequate job on security, a systems analyst must analyze the risk, exposure, and costs and specify measures such as passwords and encryption to provide protection. The backup copies of software and recovery restart procedures must be available when needed.
SECURITY AGAINST UNAUTHORIZED ACCESS:

(1) Use of administrator passwords: The password provides security to the administrator of Associates user so that unauthorized user can not access the facility of Associates User.

(2) User related checks and validations: For this software, The developer uses user related checks and validations from the user.

(3) User authorization keys: Password checking for logging of Users.

SECURITY AGAINST DATA LOSS:

(1) Provision of efficient data backup system: In this software an efficient system is used for adequate backup facility.

(2) Offline data storage: this system is capable for offline data Storage.

(3) Multiple database backup: the efficient system is use for this Software to give multiple data backup.

User Level:

User are does not change Health, Transport Information. Its only View Information and it's allowed after fill own profile and then insert username and password. User is sending Matrimonial information view any other user by allow administrator.

Administrator Level:

Administrator is able to change Health, Transport Information. Administrator is allowing matrimonial information any Change. And also allow user view bride picture and groom picture information.

CHAPTER-9

FUTURE APPLICATION OF THE PROJECT

FUTURE SCOPE OF THE APPLICATION

The KISAAN VRADDHI for the manage process can be further developed into a separate, automated system with the following enhancements:

- Help file can be included. The system, as of now, does not support any help facility for the users of the system. A help menu can be provided with a special function key and help command in the main page itself. Help can be either introduced as a separate window, a reference to a printed manual or as one- or two-line suggestion produced in a fixed screen location.
- The system can use typed commands, as they were once the most common mode of communication with the system. The typed command can be provided through control sequence or function keys or typed word.
- A training module can be included in the system. This module can be used to train the users of the system about the systems usage.

CHAPTER-10

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- https://www.mysql.com/
- http://www.mysqltutorial.org/
- https://cloud.oracle.com/mysql