શ્રી સ્વામિનારાયણ ગુરુકુલ રાજકોટ સંસ્થાન
શાસ્ત્રી સ્વામી શ્રી ધર્મજીવનદાસજી
સાયન્સ & IT ગુરુકુલ કોલેજ
ગુરુકુલ કેમ્પસ, કોલેજ રોડ, જૂનાગઢ

AGRO VISHWAS

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MR. MIHIR M. SUREJA, BCA-5

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:: submitted to ::

BKNM University, Junagadh

:: GUIDED BY ::

Mr. Ripal V. Pandya

Mr. Milind V. Anandpara

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(Affiliated to **Bhakta Kavi Narsinh Mehta University, Junagadh**)

Project Completion Certificate

This certificate is awarded to

Mr. Mihir M. Sureja	**BCA 5 - 2024**
Mr. Keval H. Bodakiya	**BCA 5 - 2024**

in completion of project work

PHP	**07/10/2024**
MySQL	**07/10/2024**

Mr. Ripal V. Pandya

Mr. Milind V. Anandpara

Project Guide

Director

www.sssdiit.junagadhgurukul.org

A

PROJECT REPORT ON

AGRO VISHWAS

Submitted in Fulfillment of Requirements

For Completion of Semester - 5 in

Bachelor of Science Information Technology

Year 2024

SHASHTRI SWAMI SHREE DHARMAJIVANDASJI

INSTITUTE OF INFORMATION TECHNOLOGY

JUNAGADH

Guided By:

MR. RIPAL V. PANDYA

MR. MILIND V. ANANDPARA

Prepared By:

MR. MIHIR M. SUREJA

MR. KEVAL H. BODAKIYA

PREFACE

This website provides a vast repository of knowledge and information on the latest agricultural research and market trends. They provide a platform for farmers to learn about new technologies, seek expert advice and stay updated on challenges and opportunities facing the industry.

Agricultural websites play a crucial role in bridging the digital divide especially in rural areas. By providing access to information and resources online, they empower farmers to make informed decisions and improve their livelihoods.

Agriculture websites are catalysts for innovation, fostering collaboration between researchers, policymakers, and farmers. By sharing research findings and best practices, these platforms can accelerate the development of new agricultural technologies and sustainable farming methods.

ACKNOWLEDGEMENT

We are very thankful to all whose have helped in preparing this project. We are feeling a great happiness to present this website project. First of all we would like to thank **"BKNM University"** who give me an opportunity to give a chance to prepare a project.

Before we get in to thick of the things we would to add a few heartfelt words for the people who were part of this project numerous ways, people who give unending support right from the stage project ideas was conceived. In particular we would like to thank **MR. RIPAL V. PANDYA , MR. MILIND V. ANANDPARA (Project Guide)**, who has always inspired us and has directed us towards the successful completion of our project. They have been the guided through the project and their encouragement has left me indebted to them.

We are very thankful to the **Director Sadhu RushikeshdashjiSwami** and the **Asst. Director Mr. Rajesh Bharad** of **Shastri Swami Shree Dharmajivandasji Institute of Information Technology – Junagadh**.

We are also thankful to our classmate and few other people who helped us directly or indirectly in solving problem and in making our web development project more efficient and attractive.

Thank you…

Date: 07/10/2024 Mr. Mihir M. Sureja

Place: Junagadh Mr. Keval H. Bodakiya

I N D E X

PROJECT PROFILE

Project Title	AGRO VISHWAS
Project Description	It Is Agricultural Website.
Front End	PHP
Back End	MYSQL
Guide	Mr. Riple V. Pandya, Mr. Milind V. Anandpara
Submitted To	S.S.S.D.I.I.T College

USE OF SYSTEM DEVELOPMENT LIFE CYCLE MODEL

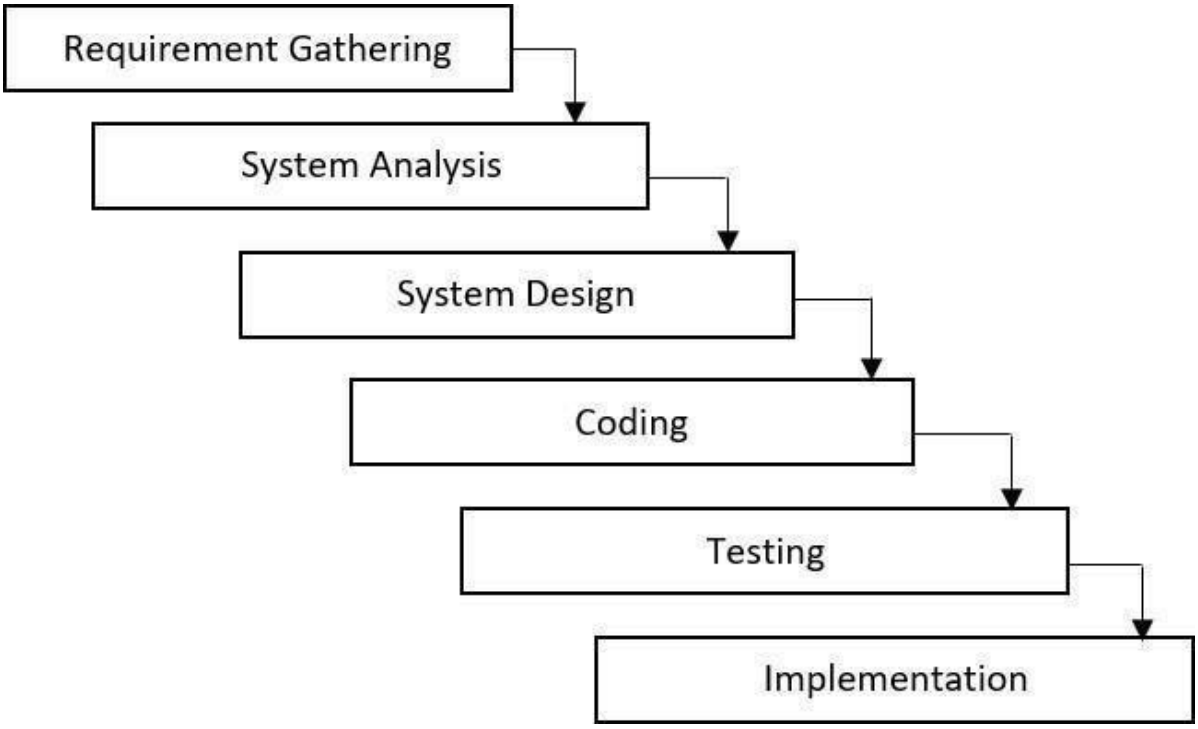
- System Development Life Cycle is process of development of software. There are some steps to follow to create a system.
- In SDLC steps follows requirement gathering. In Requirement gathering questionnaire, personal interview etc. These are method for gathering information. Analysis phase includes creating software requirement specification and analyze the gathered data. In design phase, design of software application i.e. database design and GUI design have to be prepared. In coding phase, coding is done different modules and forms. In testing phase, the different type of testing is done like integration testing, unit testing, system testing and at last the created website is implemented and maintained.

- Following are the different Life Cycle Model example.
    - Waterfall model.
    - Iterative model.
    - Prototype model
    - Evolutionary model
    - Spiral model
    - R.A.D. model (Rapid Application Development)

- I am following waterfall model following is diagrammatic representation of different phase of waterfall model.

WATERFALL MODEL

- **Requirement Gathering and Analysis :-** All possible requirements of the system to be developed are captured in this phase and documented in a requirement in a requirement specific doc.
- **System Design :-** The requirement specification from first phase is studied this phase is studied in this phase and system design in prepared, system Design helps in defining overall system architecture.
- **Implementation :-** With inputs from system design the system is system is first developed in small programs called nits which are integrated in the next phase, each unit is developed and tested for its functionality which is referred to as unit testing.
- **Integration and Testing :-** All the units develop in the Implementation phase are integrated into a system after testing of each unit post integration the entire system is tested for any faults and failures.
- **Deployment of system :-** Once the functional and non-functional testing is done the product is developing the customer environment or released into the market.
- **Maintenance :-** All the units develop in the Implementation phase are integrated into a system after testing of each unit post integration the entire system is tested for any faults and failures.


Requirement Gathering
System Analysis
System Design
Coding
Testing
Implementation

FEASIBILITY STUDY

Feasibility of a project determines whether it is possible to develop the project. These are four main factors`s, which determine the feasibility of the project. They are discussed as follow.

The main aim of feasibility study is to determine whether developing the project is functionally and technically feasible or not. The feasibility study involves analysis of the problem and collection of data which world be input to the system, the processing required to be carried out on these data, the output data required to be product by the system, as well as study of various constraint on the behavior of the system.

An initial determine in a proposal that whether an alternative system is feasible or not. To determine feasibility of candidate system in all respect I need to consider following feasibility factors:

There three types of feasibility study.

1) Technical
2) Economical
3) Operational

1) Technical Feasibility :

The main aim of technical feasibility study is to determine whether it is possible to develop the proposed system with the present technologies available and study the technical requirements and their availability in the organization & the technical equipment availability in market.

So, in this project technical requirements is: -

Hardware:

1) Browser (Chrome, Opera, Microsoft Edge etc ...)
2) 8 GB RAM
3) 512 MB Hard Disk
4) Intel i5 Processor

Software:

1) Browser (Chrome, Opera, Microsoft Edge etc ...)

2) Economical Feasibility:

The economic feasibly takes into consideration the financial matters regarding the proposed system. The organization measures the cost effectiveness of the proposed system. The economical feasibility of the proposed system is as under budget of a company or not! This is checked in economical feasibility.

Total Pages: 10

Per Page Cost: 2000

Total = 20,000 /-

3) Operational Feasibility:

The Operational feasibility deals with the matter whether the proposed system fulfills the requirements of the organization. This feasibility determines whether the proposed system covers all the aspects of the current system & gives an extra facility which is not in current system.

The project requires one person who has knowledge of basic computer fundamental.

the operational feasibility is as follows.

- The proposed system covers all aspects of the working current manual system.
- The human sources required for proposed system.
- Staff is totally operational.
- Easy to manage with organization.

REQUIREMENT GATHERING

Questionnaire :

1) What does your business actually do ?
- Our business is a agriculture website which is used to show the agriculture details.

2) Which software are used to create project?
- This project is create in Visual Studio Code.

3) What do you want to create a software or website?
- I want create a website**.**

4) do you have any other functionality tool?
- No

5) What kind of features do you need in your website?
- I want features like Add data, Update data, Delete data, Reset data.

6) **How much time period will give for this site?**
- I need complete website in approx 100 days.

7) In room page do you need your office map location?
- No

8) How many module do you want?
- One module (Admin).

9) how much time period will give for this software?
- 2 months 20 day to create this website.

REQUIREMENT ANALYSIS

Requirement gathering phase of software development life cycle acquires information from the organization for which we are preparing project. There are many techniques to acquire information. It's simple meaning to get a user's requirement for website which kind of facility user wants.

- Questionnaire
- Observation
- Personal Interview
- Record Review

From the above options, I have used "Observations" and "Personal Interview" method for requirement gathering. I have adopted Questionnaires because I can properly understand their need of software. I can also understand about different rights given to different users and the basic about software. By using Personal Interview I have understood the smallest need of their application and some idea of layout and designing.

The main requirements for the site are listed below:

✓ Only use for admin.

✓ Only admin can do product add, update, delete and view.

✓ Only Admin can delete website.

✓ If the admin has forgotten his password, he can get it from the username.

REQUIREMENT ANALYSIS

Hardware Requirement:

Tools	Required
Processor	Intel i5 Processor
Hard disk	512MB or higher
RAM	8GB or higher

Software Requirement:

Browser (Chrome, Opera, Microsoft Edge)

Front – End:

PHP

Back – End:

MYSQL

PROJECT ABSTRACTS

Administrator:

- Add, edit, or delete user , customer , employee from the Menu`s.
- Admin have full control and management of the platform.

Client:

- Client only view the website.
- client visit our website.

PROPOSED SYSTEM

Role of the Website:

provides the information on agriculture produces, machineries, research etc.

Website has been developed with a Frontend tool as Chrome Version 109.0.5414.165 (A Web Browser) and Visual Studio Code Team Edition for Software Developers (Editor).

ADVANTAGES & LIMITATIONS OF PROPOSED SYSTEM

✞ Advantages:

- Product Details and Suggestions.
- Expanded Customer Base.
- Crop Diversification and Innovation.
- Increased Productivity.
- Effective Marketing.

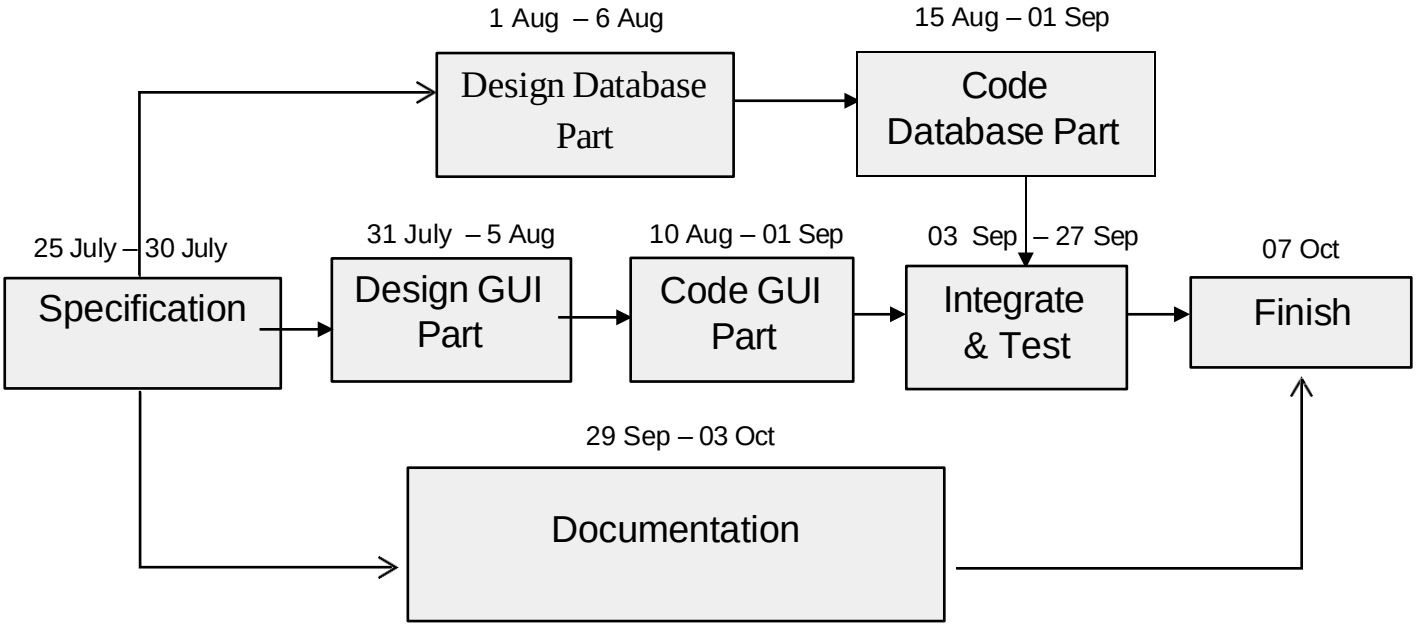
✞ Disadvantages:

- Terms and conditions: Online stores may have restrictive terms and conditions for communicating with customers.
- Costs associated with creating and maintaining a website.
- Difficulties connecting with potential customers.
- You cannot use without internet.
- User Privacy Concerns.

PERT CHART AND GANTT CHART

PERT CHART:

PERT (Project Evaluation and Review Technique) charts consist of a network of boxes and arrows. The boxes represent activities and the arrows represent task dependencies. PERT charts are a more sophisticated form of activity chart. Where instead of making a single estimate for each task, pessimistic, likely and optimistic estimates are made. The boxes of PERT charts are usually annotated with the pessimistic, likely, and optimistic estimates for every task. There are thus not one but many critical paths, depending on the permutations of the estimates for each task. This makes analysis of critical pathshow by using shaded boxes. The PERT chart representation of the MIS problemof show follows.

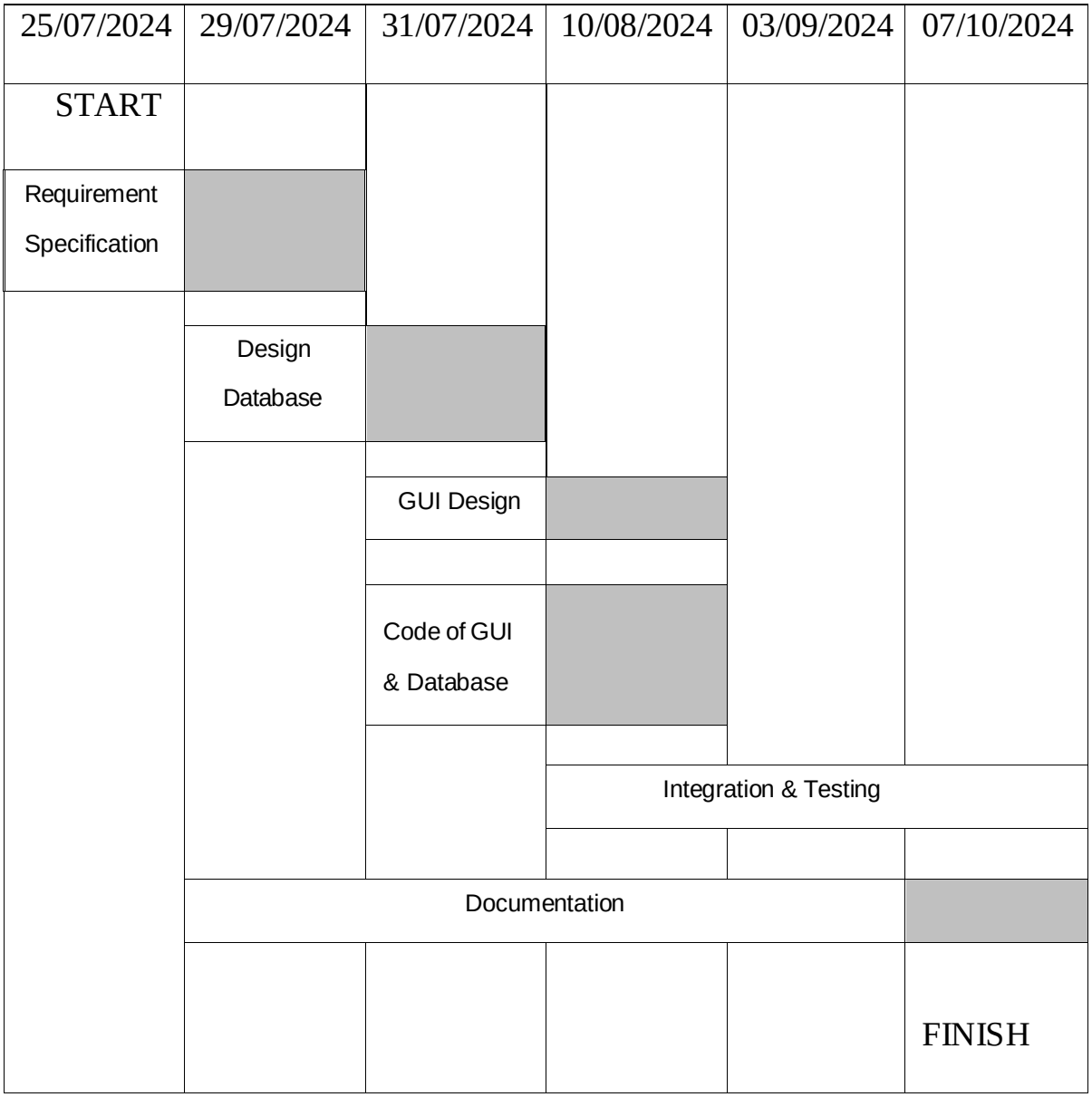


Gantt chart can be derived automatically from PERT charts. However, PERT charts cannot be automatically derived from Gantt charts because PERT charts incorporate additional information about the time when an engineer doses a task. This information is not available is helpful in planning the utilization of resources, while the PERT charts is more useful for monitoring the timely progress of activities. Also, parallel activities in a project can be easily identified using a PERT chart.

GANTT CHART:

Gantt charts are mainly use of scheduling, budgeting, and resource planning. It allocates resource to activity include Staff, Hardware, Software, etc…

A Gantt chart is a special type of bar chart where each bar represents an activity. The bars are drawn along a time line. The length of each bar is proportional to the duration of time planned for the corresponding activity.



Gantt charts used in software project management are actually an enhanced version of the software project management. Each bar consists of a white part and a shaded part. The white part of the bar shows the length of time each task is estimated to take. The shaded part of the bar shows the slack time.

In order to estimate the time durations for various activities, usually managers let the engineers themselves estimate the time for an activity they might be assigned to. However, some managers prefer to estimate the time for various activities themselves. Many managers believe that an aggressive schedule motivates the engineers to do a job better and faster.

However, careful aspects, but also cause schedule compromise on intangible quality aspects, but also cause schedule delays. A good way to achieve accuracy without creating problems is to let people set their own schedules.

We can see that one engineer can do the database design and then code the database design whereas another engineer and design the GUI part, code the GUI part, and still have time left for writing the user manual. Thus, Gantt charts are very useful is scheduling resources.

So here, I have to follow the scheduling steps for my project.

Gantt chart is really useful for planning software application resources.

DATA FLOW DIAGRAM

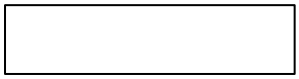
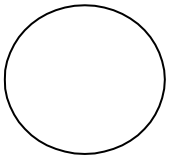
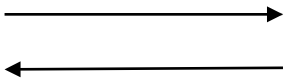
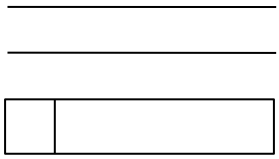
Detailed Life Cycle of Project:

In the discussion of "Detailed Life Cycle of Project" we have to Concentrate on DFD (Data Flow Diagram). Here we have work on it while developing this software project.

DFD (Data Flow Diagram):

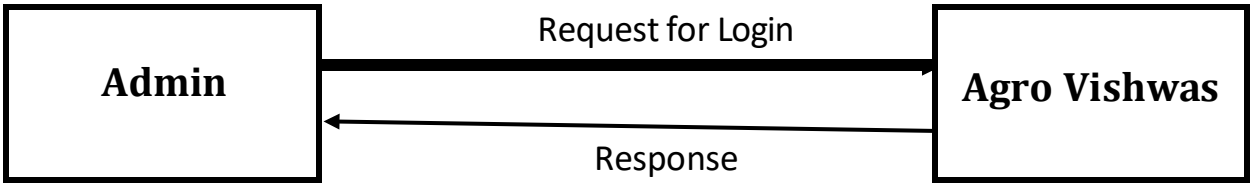
DFD is a graphical view of all system processes and transactions. With the DFD an End-User also can easily understand the system in a short time period. Also it is useful to find out problems or any complications with the system we are going to develop. We can easily get that whether we have understood the system as per the requirements of the customer or not by showing them this diagram. Thus DFD is a necessary phase while developing software.

For Understanding: -

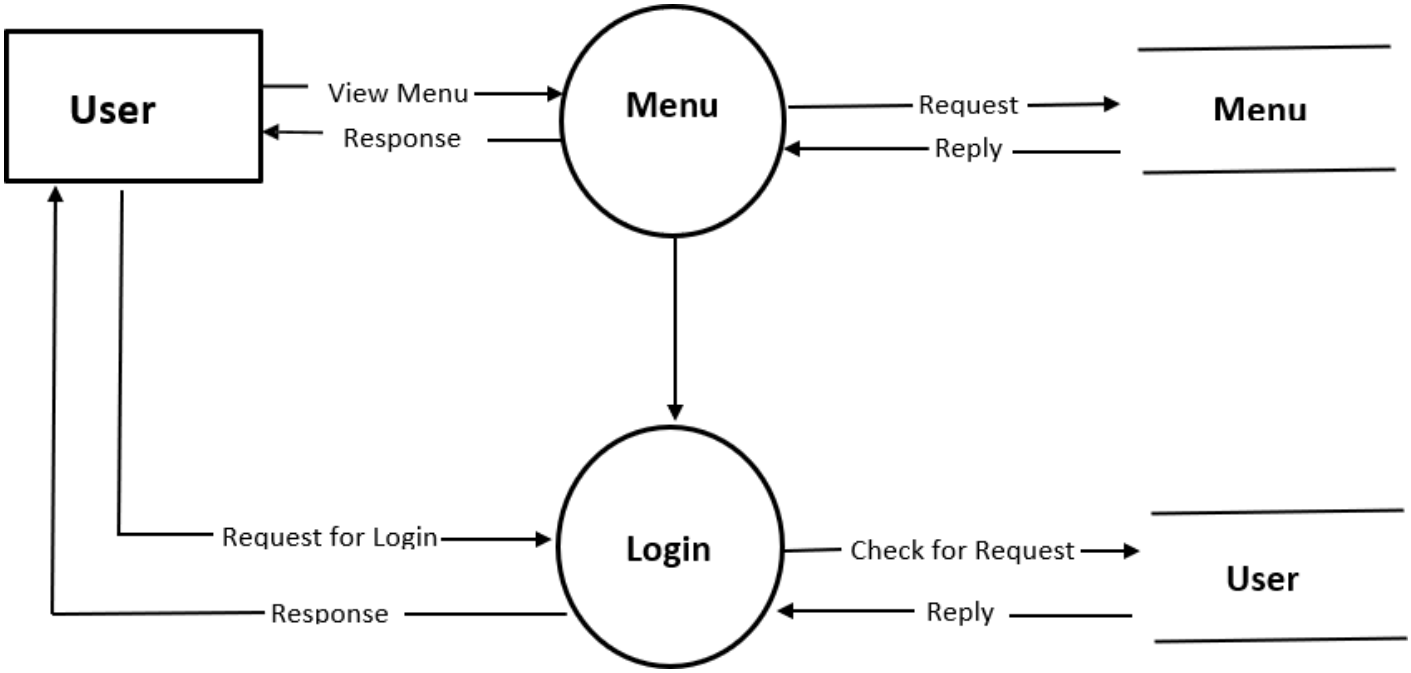
Symbol	Name	Use
	External Entity	Rectangle source and /Sink destination data.
	Process / Function	Transformed, Store, or Distribute. Annotated with number and name of function.
	Data Flow	Direction of data flow single piece of data or logical collection of data.
	Data Store	Open Rectangle Parallel Lines Data Structure, File, Table, Database.

DATA FLOW DIAGRAM

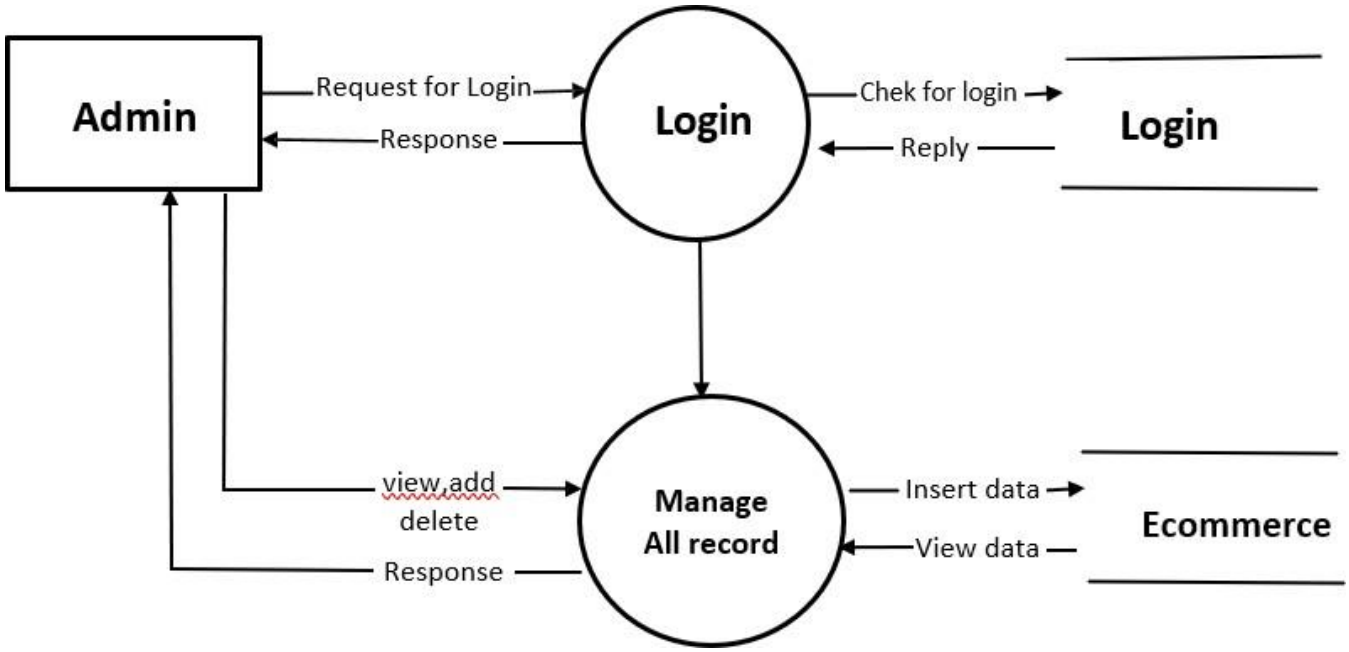
0 – level



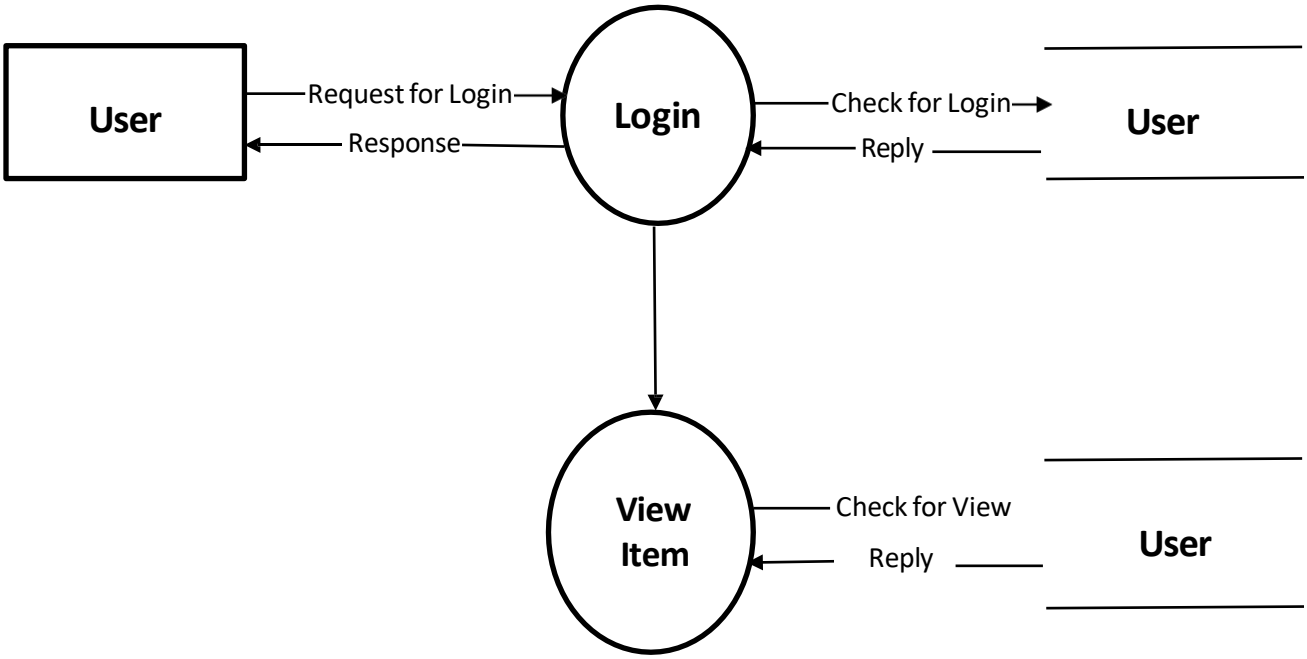
1st – Level DFD: User



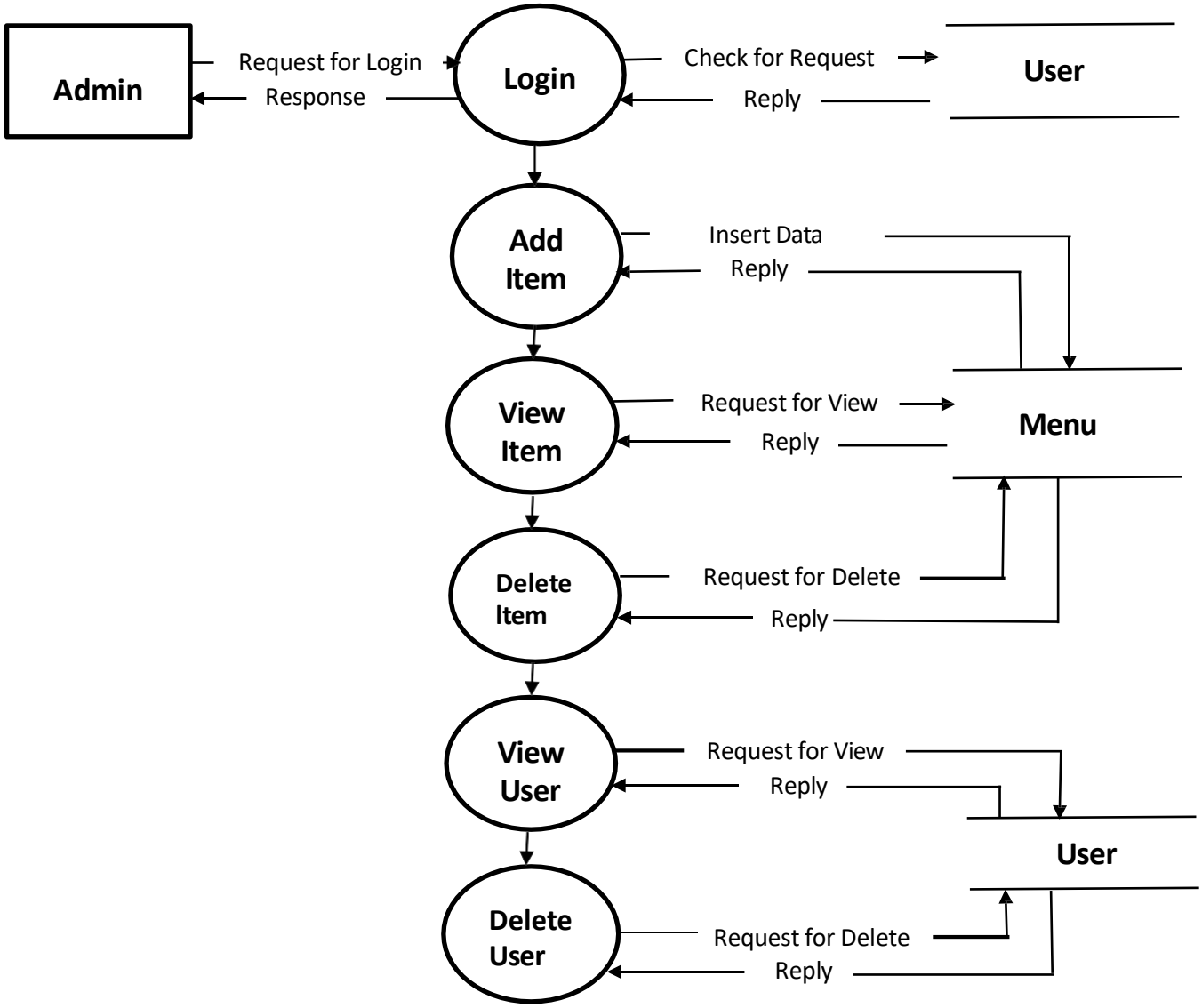
1st – Level DFD: Admin



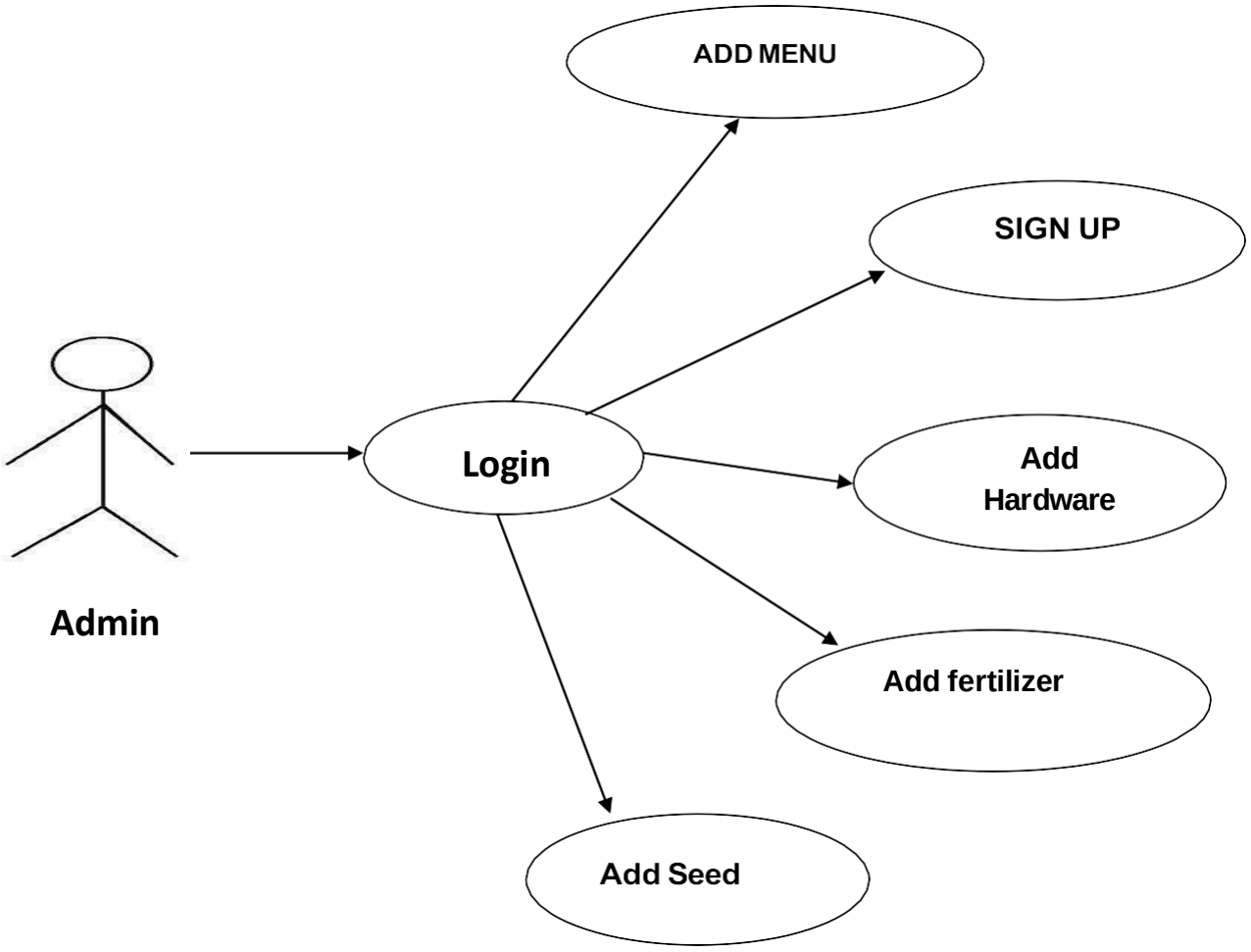
2st – Level DFD: User



2st – Level DFD: Admin



USE CASE DIAGRAM



FLOW CHART

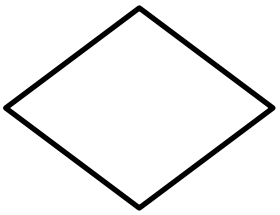
A Flow is a pictorial representation of an algorithm. Programmers often use it as a program-planning tool for visually organizing a sequence of steps necessary to solve a problem using computer. It uses boxes of different shapes to denote different type of instructions. The actual instructions are written within these boxes using clear and concise statements. Solid lines having arrow marks connect these boxes to indicate the flow of operation, that is, the exact sequence in which to execute the instructions. The process of drawing a flowchart for an algorithm is known as flow charting.

Basic Flowchart Symbols:

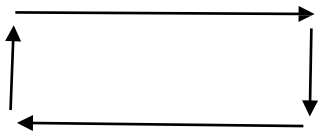
Terminal

Input / Output

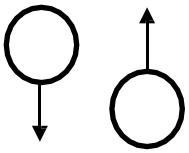
Processing



Decision

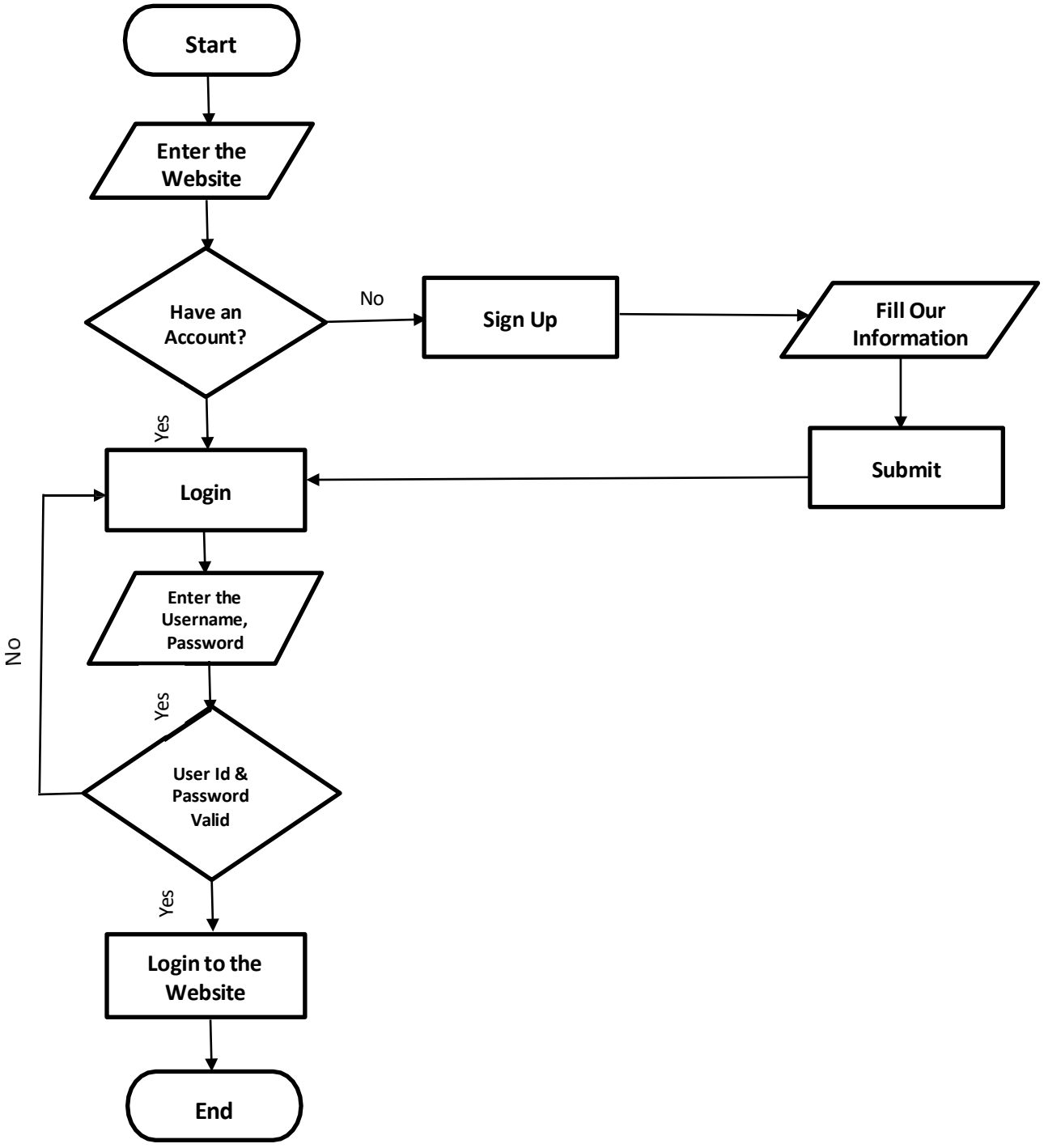


Flow Lines



Connectors

Administrative Login Flowchart:



Cost Estimation

Cost estimation for a software project like the "Agro Vishwas" website involves estimating the expenses associated with development, infrastructure, maintenance, and other aspects. Here's a general outline of the cost estimation process:

In my project, I am implementing a Module Wise to calculate and evaluate the per-page average cost. This approach allows for a comprehensive assessment of cost allocation across various components, resulting in a more accurate and informative cost constantly.

Module Wise:

Total Pages: 10
Per Page Cost: 2000

Total **= 20,000 /-**

DATA DICTIONARY & NORMALIZATION\

Database Name: ecommerce

Table 1: admin

Column Name	DataType (Size)	Constraints	Remarks
Id	int(11)	A.I, P. K	
Username	Varchar(100)		
userpassword	Varchar(100)		

Table 2: contact

Column Name	DataType (Size)	Constraints	Remarks
Firstname	Varchar(50)	A.I, P. K	
Username	Varchar(30)		
Email	Varchar(50)		
Phone	Int(10)		
message	Varchar(200)		

Table 3: tblprocuct

Column Name	DataType (Size)	Constraints	Remarks
id	int(10)	A.I, P. K	
Pname	Varchar(100)		
Pprice	int(10)		
image	Varchar(200)		
Pcategory	Varchar(100)		

Table 4: tbluser

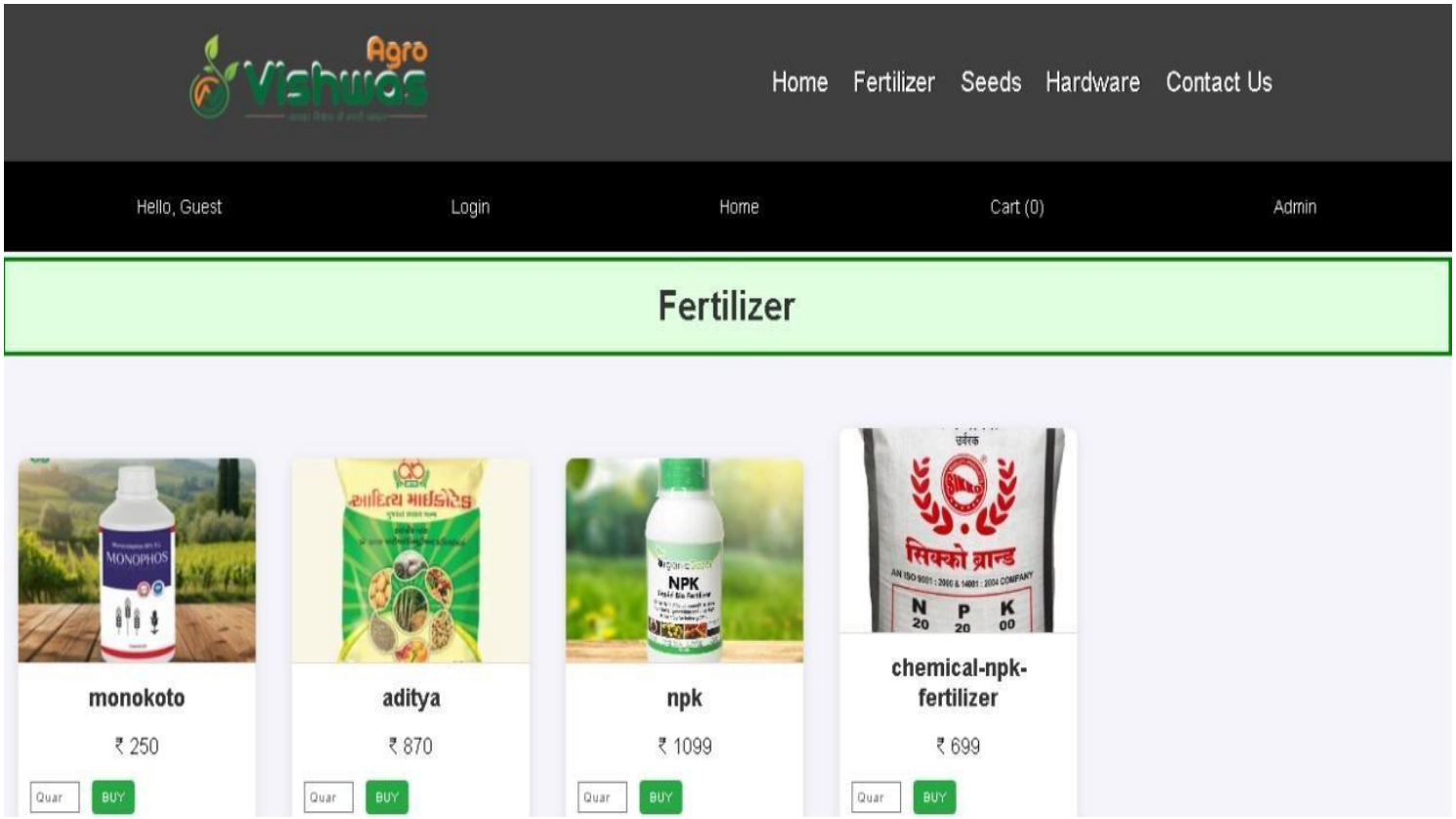
Column Name	DataType (Size)	Constraints	Remarks
id	int(11)	A.I, P. K	
UserName	Varchar(100)		
Email	Varchar(100)		
Number	Varchar(200)		
Password	Varchar(100)		

SCREEN LAYOUTS

Index.php

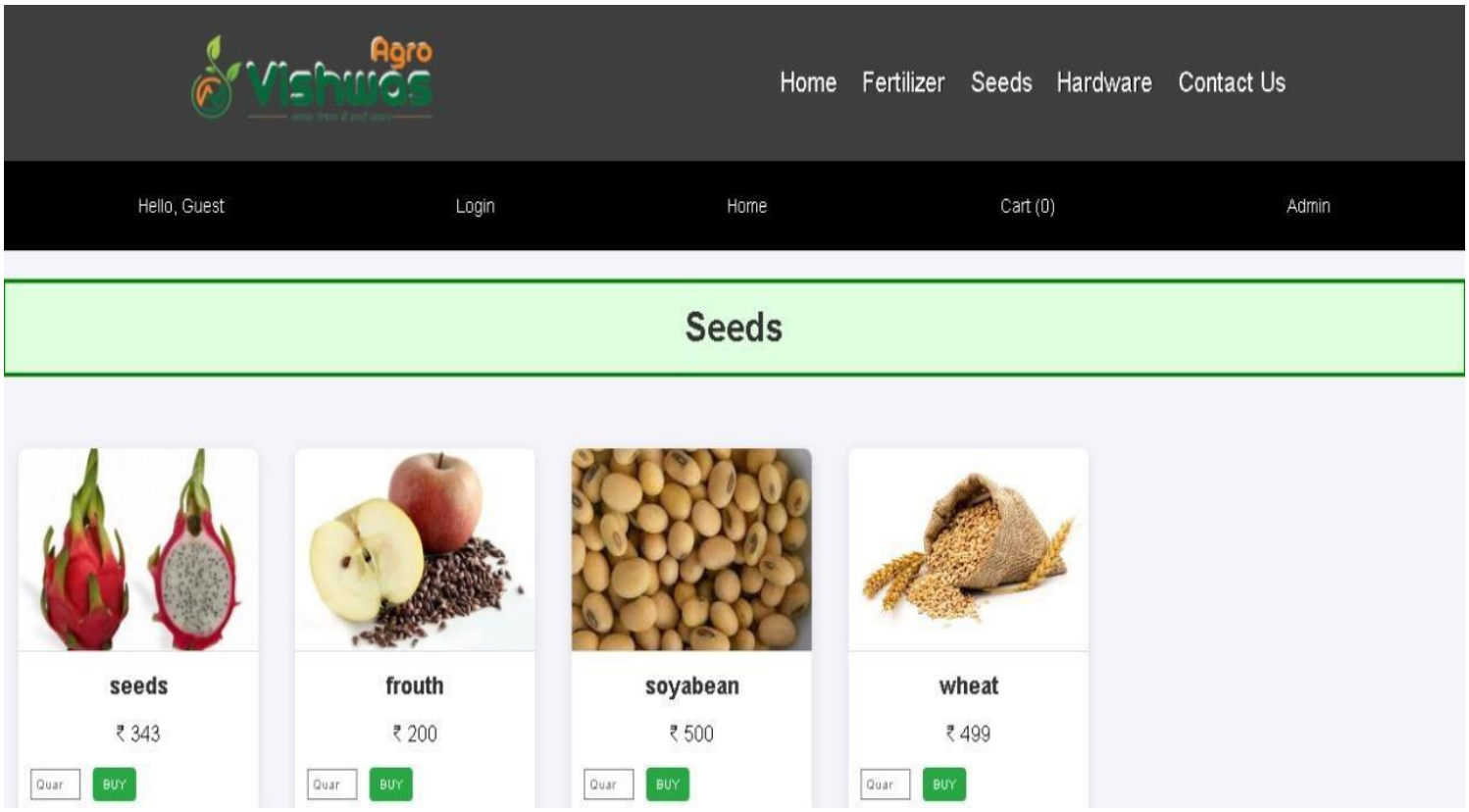

```
$Record = mysqli_query($con, "SELECT * FROM tblproduct");
while ($row = mysqli_fetch_array($Record)) {
   $check_page = $row['Pcategory'];
   if($check_page === 'Home'){

echo "
 <div class='card'>
 <form action = 'Insertcart.php' method = 'POST'>
  <img src='../admin/product/$row[image]' class='card-img-top' alt='$row[Pname]'>
  <div class='card-body'>
   <h5 class='card-title'>$row[Pname]</h5>
   <p class='card-text'></p>
   <p>₹ $row[Pprice]</p>

     <input type = 'hidden' name = 'Pname' value = '$row[Pname]'>
    <input type = 'hidden' name = 'Pprice' value = '$row[Pprice]'>

    <input type='number' name='quantity' value= ''min = '1' max = '20'' placeholder = 'Quantity'>
      <input type='submit' name = 'addcart' value= 'BUY'>
```

Fertilizer.php



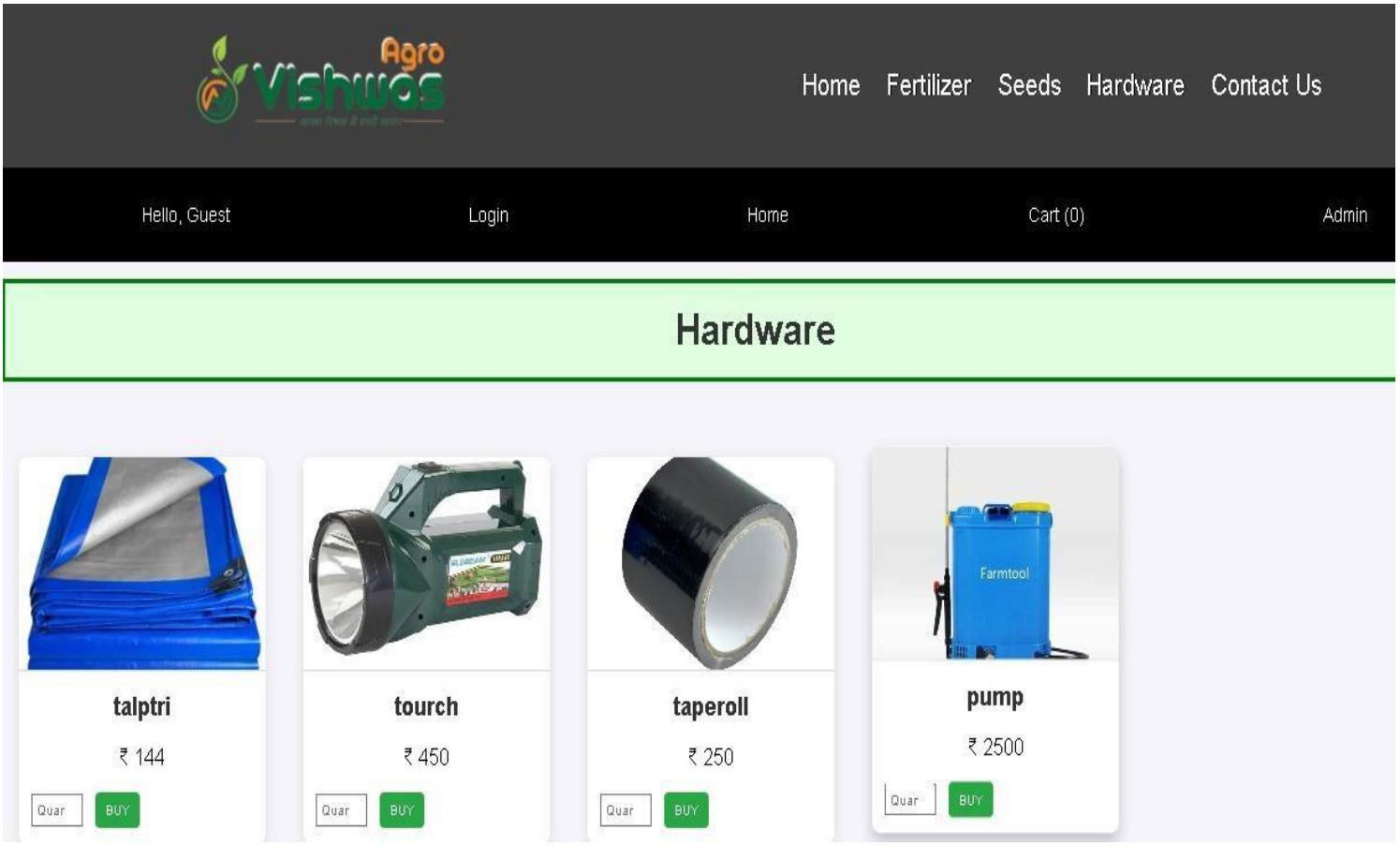

```
$Record = mysqli_query($con, "SELECT * FROM tblproduct");
while ($row = mysqli_fetch_array($Record)) {
   $check_page = $row['Pcategory'];
   if($check_page === 'Fertilizer'){

echo "
 <div class='card'>
 <form action = 'Insertcart.php' method = 'POST'>
   <img src='../admin/product/$row[image]' class='card-img-top' alt='$row[Pname]'>
   <div class='card-body'>
    <h5 class='card-title'>$row[Pname]</h5>
    <p class='card-text'></p>
    <p>₹ $row[Pprice]</p>


      <input type = 'hidden' name = 'Pname' value = '$row[Pname]'>
     <input type = 'hidden' name = 'Pprice' value = '$row[Pprice]'>

     <input type='number' name='quantity' value= ''min = '1' max = '20'' placeholder = 'Quantity'>
       <input type='submit' name = 'addcart' value= 'BUY'>
```

Seeds.php



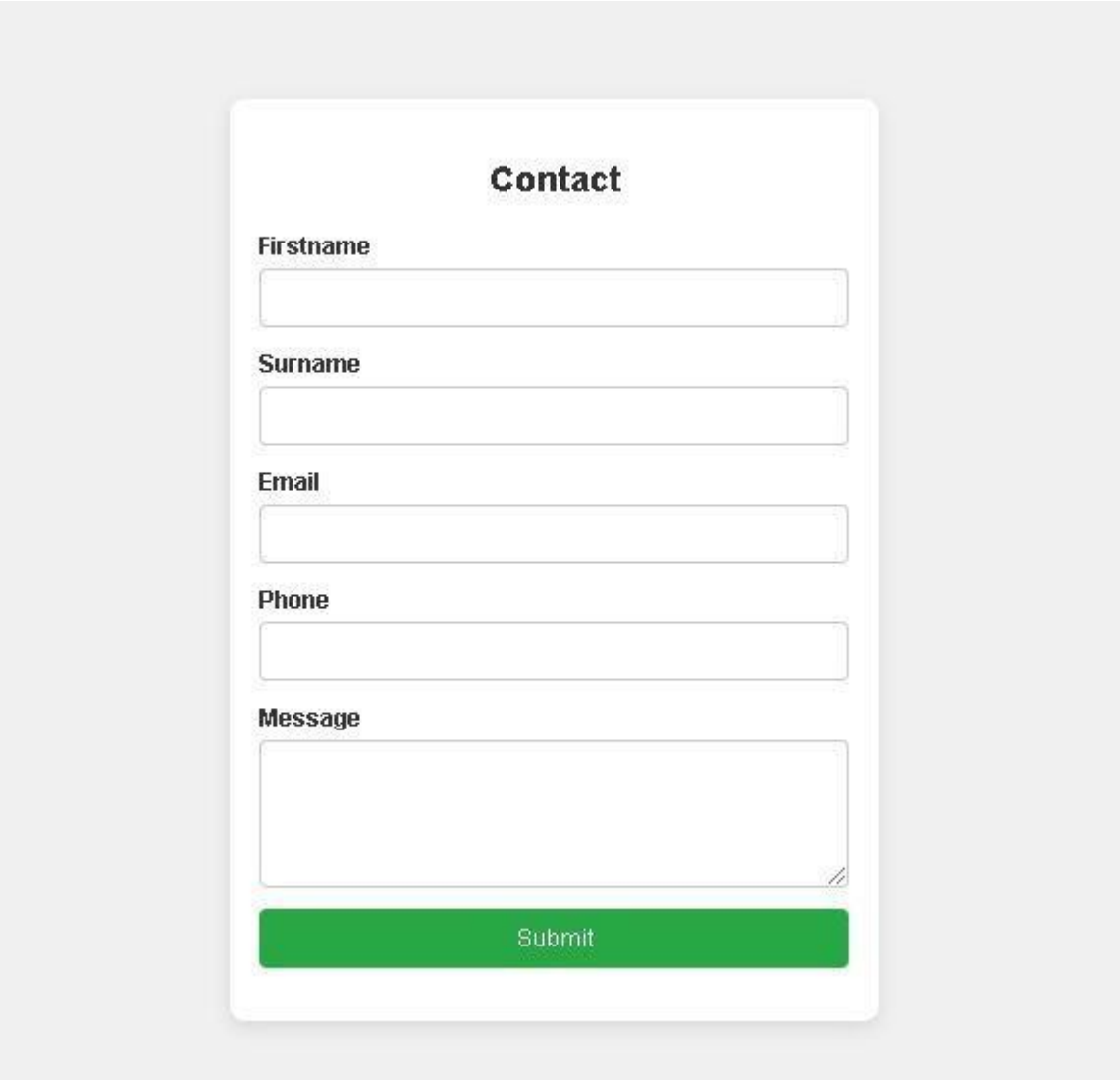

```
$Record = mysqli_query($con, "SELECT * FROM tblproduct");
while ($row = mysqli_fetch_array($Record)) {
   $check_page = $row['Pcategory'];
   if($check_page === 'Seed'){

echo "
 <div class='card'>
 <form action = 'Insertcart.php' method = 'POST'>
  <img src='../admin/product/$row[image]' class='card-img-top' alt='$row[Pname]'>
  <div class='card-body'>
   <h5 class='card-title'>$row[Pname]</h5>
   <p class='card-text'></p>
   <p>₹ $row[Pprice]</p>

     <input type = 'hidden' name = 'Pname' value = '$row[Pname]'>
    <input type = 'hidden' name = 'Pprice' value = '$row[Pprice]'>

    <input type='number' name='quantity' value= ''min = '1' max = '20'' placeholder = 'Quantity'>
      <input type='submit' name = 'addcart' value= 'BUY'>
```

Hardware.php



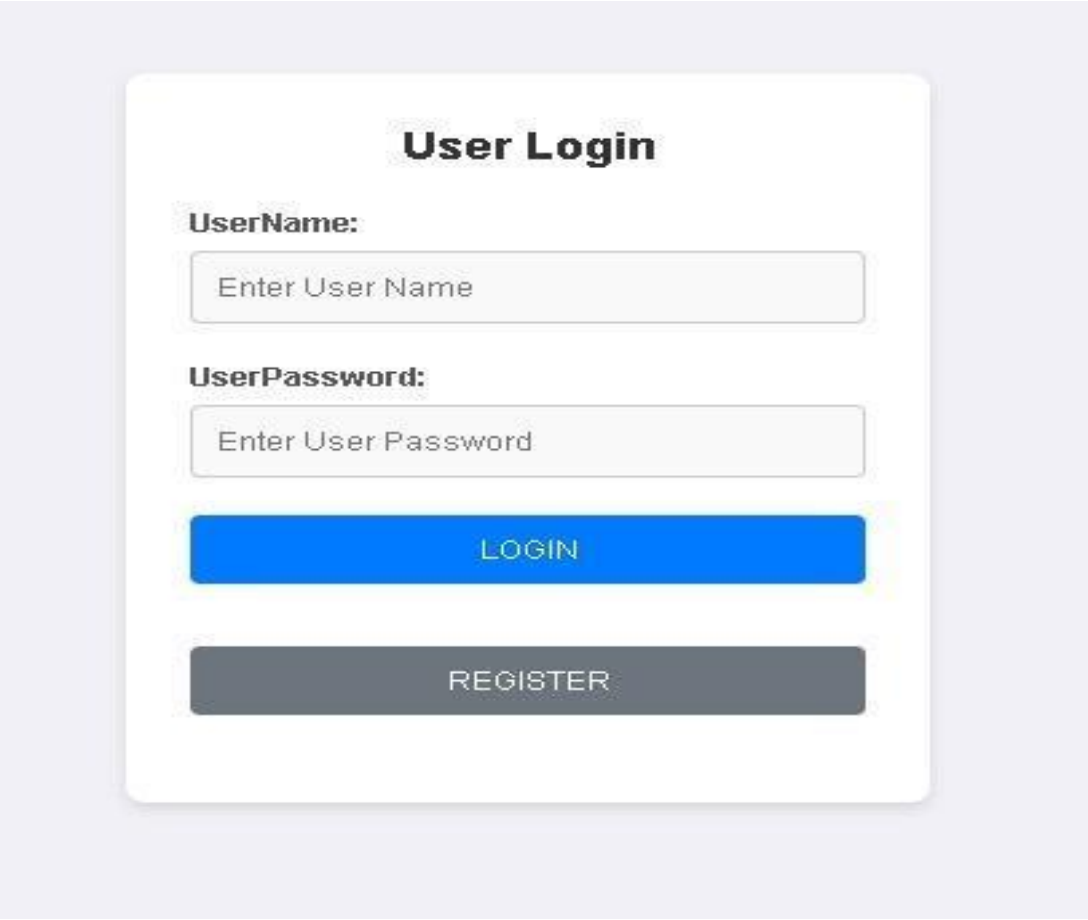

```
$Record = mysqli_query($con, "SELECT * FROM tblproduct");
while ($row = mysqli_fetch_array($Record)) {
   $check_page = $row['Pcategory'];
   if($check_page === 'Hardware'){

echo "
 <div class='card'>
 <form action = 'Insertcart.php' method = 'POST'>
  <img src='../admin/product/$row[image]' class='card-img-top' alt='$row[Pname]'>
  <div class='card-body'>
   <h5 class='card-title'>$row[Pname]</h5>
   <p class='card-text'></p>
   <p>₹ $row[Pprice]</p>

     <input type = 'hidden' name = 'Pname' value = '$row[Pname]'>
    <input type = 'hidden' name = 'Pprice' value = '$row[Pprice]'>

    <input type='number' name='quantity' value= ''min = '1' max = '20'' placeholder = 'Quantity'>
      <input type='submit' name = 'addcart' value= 'BUY'>
```

Contact.php



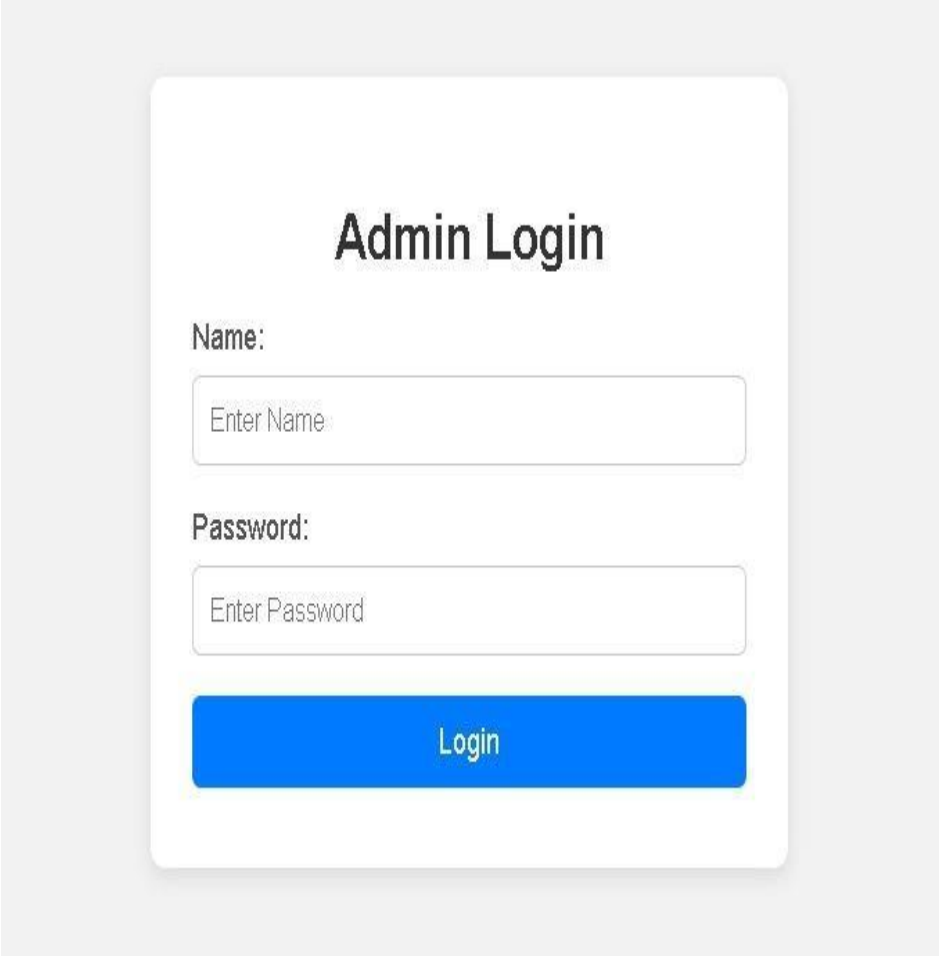

```
if($_SERVER['REQUEST_METHOD'] == "POST") {
   $Firstname = $_POST['Firstname'];
   $Username = $_POST['Username'];
   $Email = $_POST['Email'];
   $Phone = $_POST['Phone'];
   $Message = $_POST['Message'];
if(!empty($Firstname) && !empty($Username) && !empty($Email) && !empty($Phone) && !empty($Message)) {
       $query = "insert into contact (Firstname, Username, Email, Phone, Message) values
       ('$Firstname', '$Username', '$Email', '$Phone', '$Message')";

       mysqli_query($con, $query);

       echo "<script type='text/javascript'> alert('Successfully registered');</script>";
      header("Location: index.php");
      exit();
   } else {
       echo "<script type='text/javascript'> alert('Please provide valid values');</script>";
   }
```

Login.php



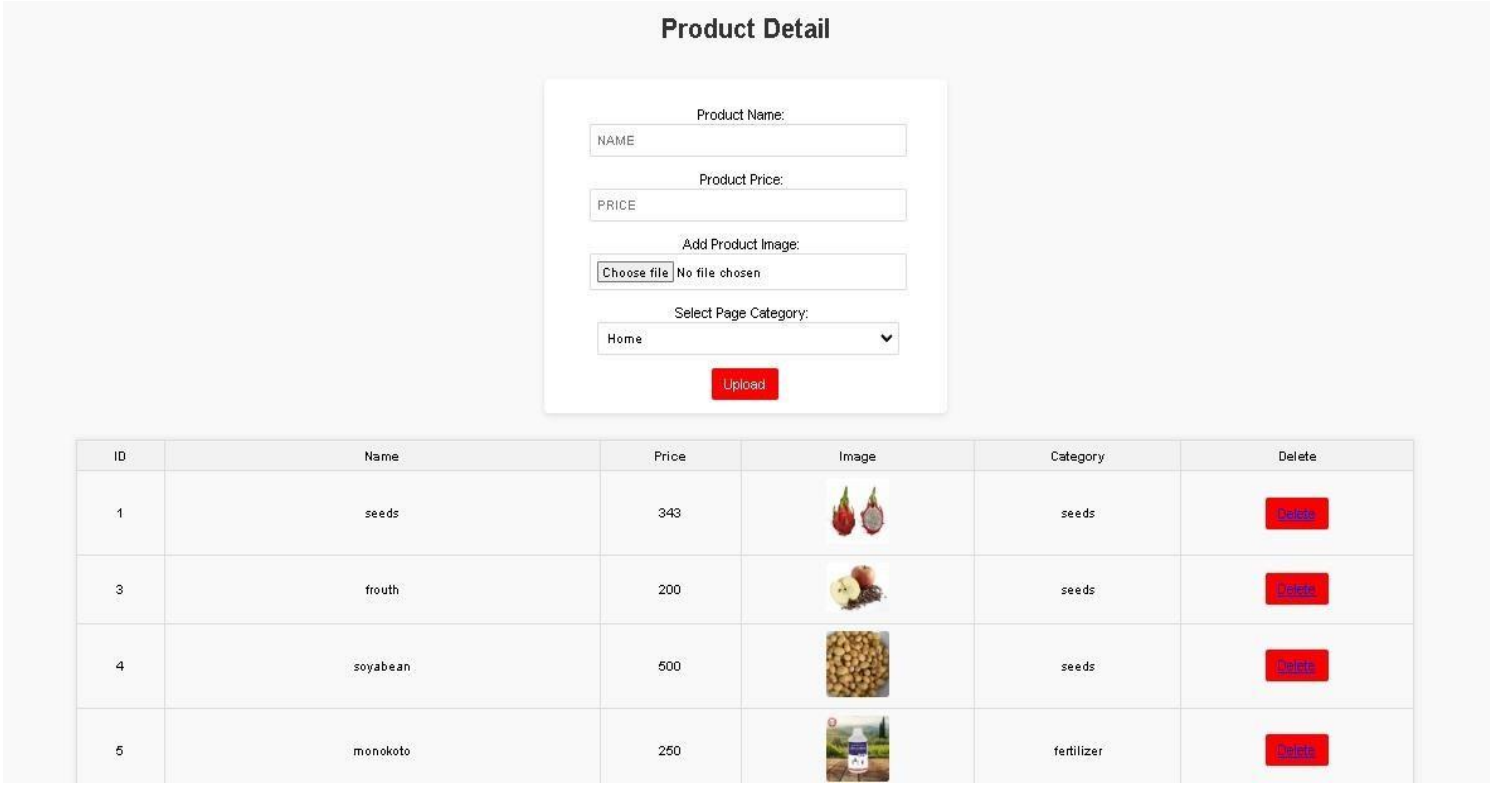

```
$Name = $_POST['name'];
$Password = $_POST['password'];

$result = mysqli_query($con, "SELECT * FROM tbluser
WHERE (UserName = '$Name') AND Password = '$Password'");

if (mysqli_num_rows($result)) {
   $_SESSION['user'] = $Name; // Set the user session variable
   echo "
   <script>
      alert('Successfully logged in');
      window.location.href = '../index.php';
   </script>
   ";
```

Login.php



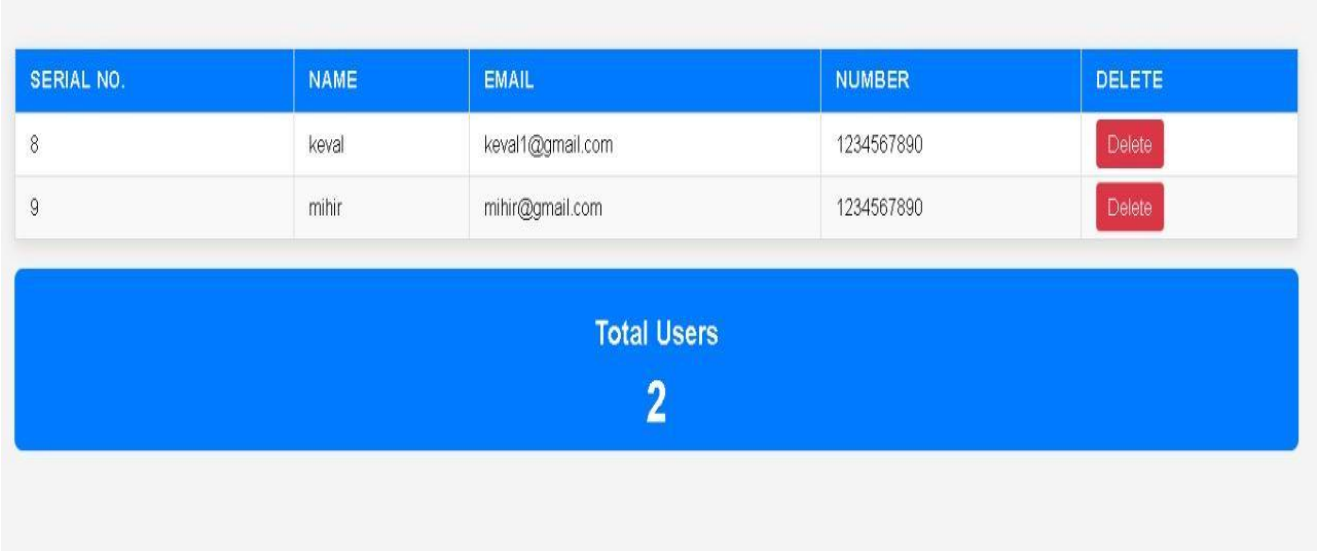

```
if (isset($_POST['username']) && isset($_POST['userpassword'])) {
   $A_name = $_POST['username'];
   $A_password = $_POST['userpassword'];

   // Execute the query and check for errors
   $result = mysqli_query($con, "SELECT * FROM admin
   WHERE username = '$A_name' AND userpassword = '$A_password'");

   session_start();

   if (mysqli_num_rows($result) > 0) {

      $_SESSION['admin'] = $A_name;
      echo "
      <script>
      alert('Login successfully');
      window.location.href='../mystore.php';
      </script>
      ";
```

Product.php




```
$Record = mysqli_query($con, "SELECT * FROM tblproduct");
    while ($row = mysqli_fetch_array($Record)) {
      echo "
      <tr>
        <td>$row[id]</td>
        <td>$row[Pname]</td>
        <td>$row[Pprice]</td>
        <td><img src='$row[image]' alt='Product Image'></td>
        <td>$row[Pcategory]</td>
        <td><button><a href='delete.php? ID=$row[id]'>Delete</a></button></td>

      </tr>
      ";
```

user.php



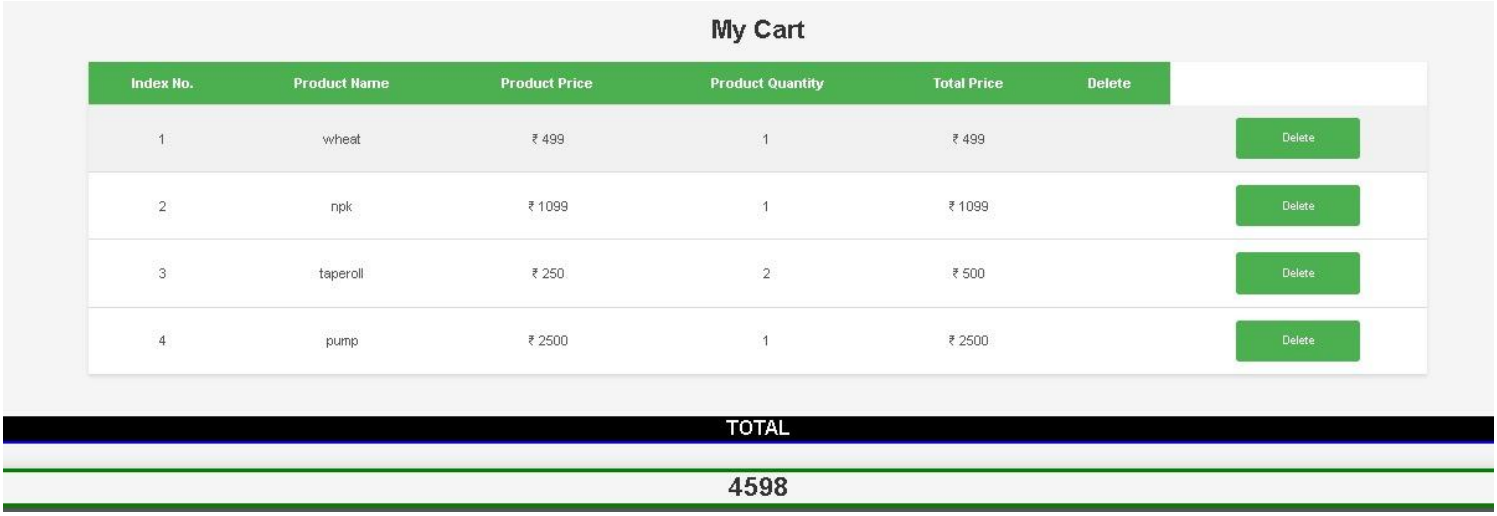
SERIAL NO.	NAME	EMAIL	NUMBER	DELETE
8	keval	keval1@gmail.com	1234567890	Delete
9	mihir	mihir@gmail.com	1234567890	Delete

Total Users

2

```
while($row = mysqli_fetch_array($Record)){
        echo "
        <tr>
          <td>{$row['Id']}</td>
          <td>{$row['UserName']}</td>
          <td>{$row['Email']}</td>
          <td>{$row['Number']}</td>
          <td><a href='delete.php?ID={$row['Id']}'>Delete</a></td>
        </tr>
        ";
```

ViewCart.php




```
$total = 0;
 if (isset($_SESSION['cart']) && count($_SESSION['cart']) > 0) {
    $index = 1;
    foreach ($_SESSION['cart'] as $key => $value) {
       // Ensure that productPrice and productQuantity are numeric
       $productPrice = (float)$value['productPrice'];
       $productQuantity = (int)$value['productQuantity'];

       $total_price = $productPrice * $productQuantity;
       $total += $total_price;

       echo "
       <form action='InsertCart.php' method='POST'>
          <tr>
             <td>{$index}</td>
             <td>{$value['productName']}</td>
             <td>₹{$productPrice}</td>
             <td>{$productQuantity}</td>
             <td>₹{$total_price}</td>
             <td>
                <input type='hidden' name='productName' value='{$value['productName']}'>
             <td>
                <input type='hidden' name='item' value='{$value['productName']}'>
                <button type='submit' name='remove'>Delete</button>
             </td>
          </tr>
       </form>
```

SPECIAL UTILITIES

- Focuses on sustainable agricultural practices and provides resources for better farming methods.
- Online facility is provided for sale of agricultural equipment.
- The Platform becomes useful for connecting farmers, sharing experiences and seeking advice.
- Resources are provided for sustainable farming practices.

TESTING

What is Software Testing

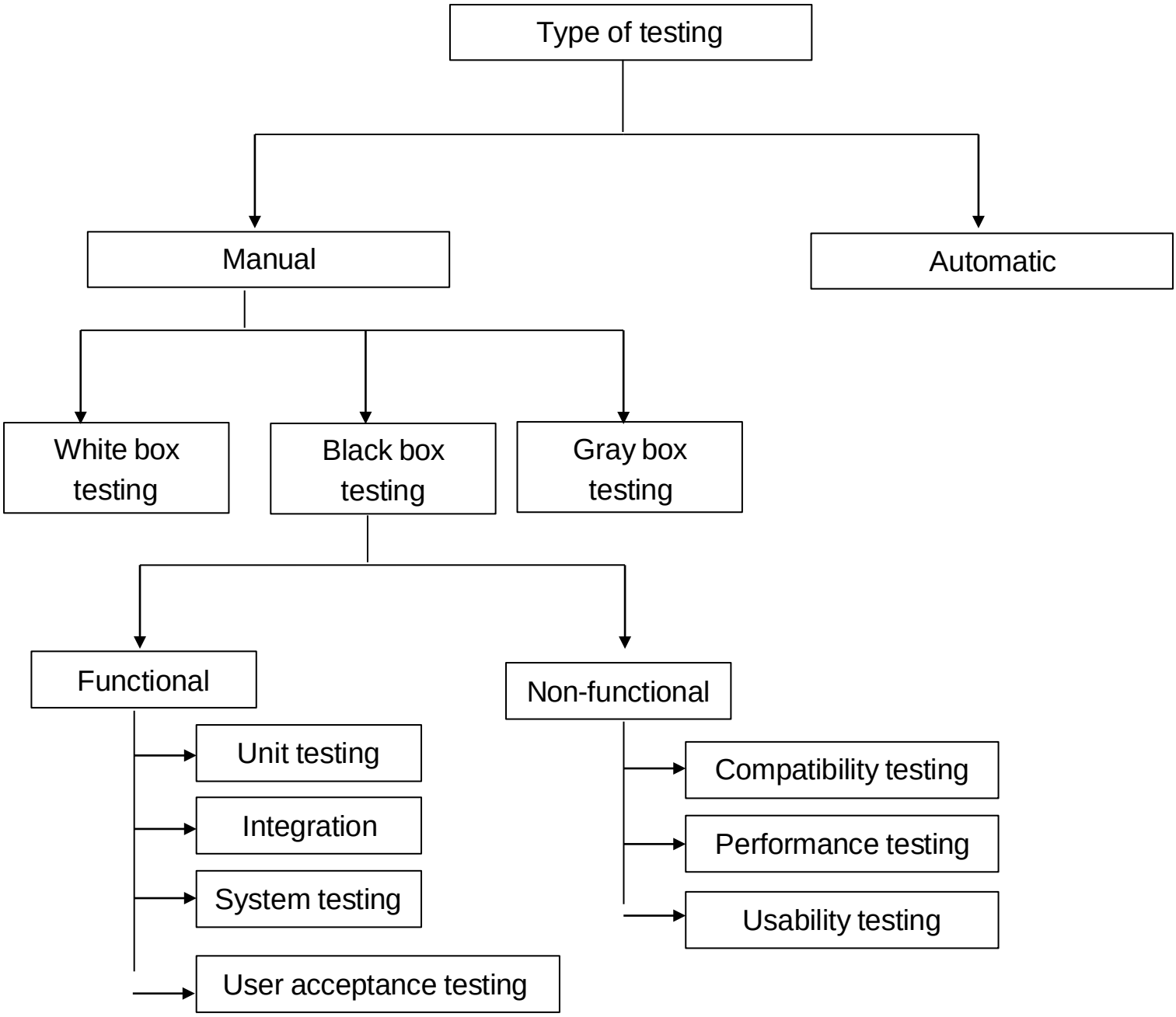
Software testing is a process of identifying the correctness of software by considering its all attributes (Reliability, Scalability, Portability, Re-usability, Usability) and evaluating the execution of software components to find the software bugs or errors or defects. Software testing provides an independent view and objective of the software and gives surety of fitness of the software. It involves testing of all components under the required services to confirm that whether it is satisfying the specified requirements or not. The process is also providing the client with information about the quality of the software.

Types of Software testing

Types of Software

testing We have various types of testing available in the market, which are used to test the application or the software.

The types of testing are below: -



1. Manual testing

The process of checking the functionality of an application as per the customer needs without taking any help of automation tools is known as

manual testing. While performing the manual testing on any application, we do not need any specific knowledge of any testing tool, rather than have a proper understanding of the product so we can easily prepare the test document.

Manual testing can be further divided into three types of testing, which are as follows:

- **White box testing**
- **Black box testing**
- **Gray box testing**

➢ White-box testing

The white box testing is done by Developer, where they check every line of a code before giving it to the Test Engineer. Since the code is visible for the Developer during the testing, that's why it is also known as White box testing.

➢ Black box testing

The black box testing is done by the Test Engineer, where they can check the functionality of an application or the software according to the customer /client's needs. In this, the code is not visible while performing the testing; that's why it is known as black-box testing.

➢ Gray Box testing

Gray box testing is a combination of white box and Black box testing. It can be performed by a person who knew both coding and testing. And if

the single person performs white box, as well as black-box testing for the application, is known as Gray box testing.

2. Automation testing

Automation testing is a process of converting any manual test cases into the test scripts with the help of automation tools, or any programming language is known as automation testing. With the help of automation testing, we can enhance the speed of our test execution because here, we do not require any human efforts. We need to write a test script and execute those scripts.

Test case

Test Suite ID: 1Test Case ID: 1 Created By: Mihir Sureja Executed By: Keval Bodakiya Executed Date: 07 October 2024			Description: This test case will check the validation functionality on the login form.		
Task no	Task	Expected Result	Actual Result	Pass / Fail	Remark
1	Enter valid username and UserPassword	Login Successfull	Login Success	Pass	
2	Enter Invalid username password	Login failed, ErrorOccurred	Generating an error message	Pass	
3	Click on login buttonwithout providing any value	An error message will generate	Generating an error message	Pass	

Test Suite ID: 1Test Case ID: 1 Created By: Mihir Sureja Executed By: Keval Bodakiya Executed Date: 07 March 2024			Description: This test case will check the validationfunctionality on the Register form.		
Task no.	Task.	Task no.	Actual Result	Pass/ Fail	Remark
1	Enter valid username and password	1	Allow to username & userpassword	Pass	
2	Enter Invalid username andpassword	2	Generating an error message	Pass	
3	Click on Register button without providing any Value	3	Generating an error message	Pass	

IMPLEMENTATION

In software engineering, implementation refers to the process of translating a software design or specification into a working and executable program or system. It is one of the crucial phases in the software development life cycle (SDLC) and typically follows the design phase. Implementation involves writing, coding, and testing the actual software components based on the design and requirements.

Here are some key aspects of implementation in software engineering:

1) Coding:

During implementation, Website developers write the source code for the Website. This involves translating the high-level design and algorithms into a programming language that the computer can understand and execute.

2) Testing:

Testing is an integral part of implementation. Developers perform unit testing to ensure that individual components or modules of the Website work correctly. They also conduct integration testing to verify that these modules can work together seamlessly.

3) Debugging:

Debugging is the process of identifying and fixing errors or bugs in the code. It's a critical step in ensuring the Website functions as intended and doesn't produce unexpected or incorrect results.

4) Documentation:

Developers create documentation during implementation to describe the code, its purpose, usage, and any dependencies. Proper documentation is essential for future maintenance and collaboration among team members.

5) Version Control:

Version control systems, such as Get, are often used during implementation to track changes to the code base, collaborate with team members, and ensure that different versions of the Website are well managed.

6) Optimization:

Developers may also optimize the code for performance, memory usage, and other factors to ensure the Website meets its performance requirements.

7) Adherence to Coding Standards:

Many development teams have coding standards or style guides that developers must follow to ensure consistency and maintainability of the code base.

8) Security Considerations:

Implementers should be mindful of security best practices to minimize vulnerabilities and protect the Website from potential threats.

9) Reusability:

In some cases, code modules or components may be designed for reuse in future projects or within the same project to improve efficiency and maintainability.

10) Peer Review:

Code reviews are often conducted by other team members to assess the quality of the implementation, identify potential issues, and ensure compliance with coding standards.

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