



**Daffodil**  
*International*  
**University**

**Department Of Software Engineering, FSIT**

**Project-(SWE-431)**

**Project Documentation**

**Project: Garments ERP System (inventory)**

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## DECLARATION

I hereby declare that I have taken this project under the supervisor of **Khalid Been Md Badruzzaman Biplob, Lecturer, Department of Software Engineering , Daffodil International university**. I also declare that neither this project nor any part of this has been submitted elsewhere for award of any degree.

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# **Chapter 1**

## **Introduction**

# 1.1 Project Overview

At present, almost every business in the world has the use of information technology. As it has made communication around the world much easier, it has contributed significantly to the development of business standards. But the lack of some information technology in the garments industry is slowing down the production, which is making people unemployed.

Garments Inventory is a system from which the entire garment's inventory is stored and accounted for. There are often problems with properly accounting or distributing raw materials for work. Failure to properly account for management can result in financial loss to the company.

Moreover, due to lack of information technology, there is a lot of time loss and it takes a long time to get any information. It reduces the production and loss of the company.

Inventory currently plays a very important role in product creation. Basically it gets the order sheet from the merchandiser first and sends it to the commercial manager. The orders that are placed on the garments work on receiving and accounting properly.

A lot of the product is meant to be stored. When the job is started, the approved mail checks are delivered to the product in the garments and at the end of the day, the garment manager and the merchandiser are provided with all the store's product information. As a result, the absence of a product does not stop the garments.

This system allows to quickly calculate a product and if a product is lacking, it can be stored faster, so that the company will be active, and the manager and merchandiser can monitor all the information in the Inventory system.

## 1.2 Purpose

The main purpose of this project named “**GarmentsERP System**” is to make an automation system which might be helpful for millions of users from different garments by solving their a few problems. Therefore, we are going to develop such a project.

### 1.2.1 Background

There are a lot of garments in our country but many garments are shutting down due to lack of qualified people. Garments are closed due to poor quality of goods and there is no proper calculation of wages, which leads to workers being rudderless.

we start this project for checking the exact quality of the product and thinking that the product will continue to increase.

### 1.2.2 Benefits

- Our system will store all product information.
- Specifies what kind, amount of product will be needed for an order.
- Receives product and stores information immediately.
- Keep track of the amount of raw materials in the store.
- Will provide the production calculations at the end of the month.
- This system will not stop working due to lack of products.

I have also mentioned some benefits as well as beneficiaries. So, I think this application is very much helpful for users

## 1.2.3 Goals

We develop this system to keep the garments in motion, store raw materials and increase production. Sometimes, some unscrupulous people will lose the company due to misuse of the product, in which case the system will be able to access all the senior executives including the manager.

## 1.3 Stakeholders

**There are seven Types of stakeholders:**

- Buyer/Company
- Merchandiser
- Planning manager
- Inventory manager
- Commercial manager
- BGMEA
- Banks

Now, I will write a brief description about stakeholders:

**Buyer/Company:** Buyer will order for his need, can know the each product cost and total cost of order, production completion estimated date, can get all reports too.

**Merchandiser:** Merchandiser makes each order. For each order he calculates cost benefit reports, deals with buyer and confirms order.

**Planning manager:** Planner can see each of the orders, yarn and fabric info and plans for each order in some sub works and generates report for each order. He can also generate daily work report too.

**Inventory manager:** Inventory manager can see all orders, calculate needed inventories and send request for inventory to commercial manager.

**Commercial manager:** Commercial manager can see all orders and needed inventory for each order to import from other companies. He will gather all information of the garment, each cost for production of each order, export info and bank info of buyer.

**BGMEA:** Planner, merchandiser, commercial manager will give report to BGMEA. And all deal for each order will be confirmed with the permission of BGMEA.

**Banks:** An order report of specific order and daily work report of this order will be sent to bank and bank will monitor daily work progress.

# 1.4 Project Schedule

We need to prepare a scheduling plan to complete the project on time. It also refers to make communication with what task need to get done within timeframe.

## 1.4.1 Gantt Chart

Gantt chart is mainly a production control tools. It remained us to complete our assigned tasks within a certain period of time. For developing software, it is mostly used. Now I will show a Gantt chart for our project.

Activities		W 1	W 2	W 3	W 4	W 5	W 6	W 7	W 8	W 9	W 10	W 11	W 12	W 13	W 14	W 15	W 16
Planning	Ideas	█															
	Problem definition	█	█														
	Proposal planning	█	█														
Requirements	Requirement specification		█														
	Requirement analysis		█	█													
QA-1	Quality assurance			█													
System design	Sketching				█												
	Design specification				█	█											
	Database design					█											
Implementation-1	Searching vehicles					█	█	█	█	█							
QA-2	Test cases			█				█	█	█	█						
Implementation-2	Impose case & demerits										█	█	█	█			
Testing	Unit testing					█		█				█	█	█	█		
	Black box testing													█	█	█	█
Delivery	Software release																
Scheduled time		█															
Buffered time		█															

## 1.4.2 Release Plan or Milestone

The release plan or milestones are given below:

<b>Activities</b>	<b>Duration in week</b>	<b>Total Week</b>
<b>Brainstorming</b>	Week 1	1
<b>Problem identification</b>	Week 1, Week 2	2
<b>Requirement specification</b>	Week 2	1
<b>Requirement analysis</b>	Week 2	1
<b>Sketching</b>	Week 4	1
<b>Design specification</b>	Week 4	1
<b>Database design</b>	Week 5	1
<b>Vehicle search</b>	Week 5, Week 6, Week 7, Week 8	4
<b>Quality assurance</b>	Week 3	1
<b>Test case</b>	Week 3, Week 7, Week 8, Week 9	4
<b>Impose case &amp; demerits</b>	Week 10, Week 11, Week 12, Week 13	4
<b>Unit testing</b>	Week 11, Week 12	2
<b>Black-box testing</b>	Week 13, Week 14, Week 15	3
<b>Software release</b>	Week 16	1

# **Chapter 2**

## **Software Requirement Specification**

## 2.1 Functional Requirements:

Functional requirements refer to the functions which are mandatory to the system. Functional requirements must be able to perform on the software system. Every system must have some functional requirements. Now, we are going to mention functional requirements associating with our project.

### 2.1.1 Inventory manager add accessories info

<b>Requirements 1</b>	<b>Inventory manager add accessories info</b>
<b>Description</b>	After receive confirming order mail, When accessories are entered, they will be added to the system. For that reason inventory manager check all products and add product details information individually.
<b>Stakeholders</b>	Inventory manager

### 2.1.2 Inventory manager add Yarn info

<b>Requirements 2</b>	<b>Inventory manager add yarn info</b>
<b>Description</b>	After receive confirming order mail, When yarn are entered, they will be added to the system. Added yarns color, width, content etc. Inventory manager check all products and add product details information individually.
<b>Stakeholders</b>	Inventory manager

### 2.1.3 Inventory manager add Fabric info

<b>Requirements 3</b>	<b>Inventory manager add fabric info</b>
<b>Description</b>	After receive confirming order mail, When fabric are entered, they will be added to the system. Added fabric quantity, width, content etc. Inventory manager check all products and add product details information individually.
<b>Stakeholders</b>	Inventory manager

### 2.1.4 Inventory manager add Dyes and Chemical info

<b>Requirements 4</b>	<b>Inventory manager add dyes and chemical info</b>
<b>Description</b>	After receive confirming order mail, When dyes and chemical are entered, they will be added to the system. Added dyes classification, width, content etc. Inventory manager check all products and add product details information individually.
<b>Stakeholders</b>	Inventory manager

### 2.1.5 Inventory manager Update accessories info

<b>Requirements 5</b>	<b>Inventory manager update fabric info</b>
<b>Description</b>	After add accessories when needs to be distribute, inventory manager update the accessories information. Then, the amount of goods ordered and the quantity distributed is update.
<b>Stakeholders</b>	Inventory manager

## 2.1.6 Inventory manager Update Yarn info

<b>Requirements 6</b>	<b>Inventory manager update yarn info</b>
<b>Description</b>	After add yarn when needs to be distribute, inventory manager update the yarn information. Then, the amount of goods ordered and the quantity distributed is update.
<b>Stakeholders</b>	Inventory manager

## 2.1.7 Inventory manager Update fabric info

<b>Requirements 7</b>	<b>Inventory manager update fabric info</b>
<b>Description</b>	After add fabric when needs to be distribute, inventory manager update the fabric information. Then, the amount of goods ordered and the quantity distributed is update.
<b>Stakeholders</b>	Inventory manager

## 2.1.8 Inventory manager Update Dyes and chemical info

<b>Requirements 8</b>	<b>Inventory manager updatedyes and chemical info</b>
<b>Description</b>	After add dyes and chemical when needs to be distribute, inventory manager update the dyes and chemical information. Then, the amount of goods ordered and the quantity distributed is update.
<b>Stakeholders</b>	Inventory manager

## 2.2 Data Requirements:

For defining data requirements, we need to build the model. For our application maximum data would be loaded from client/buyer and some from Organization's employees. And for that purpose we need to focus on some major points.

Such as:

- Types of entity of the system
- Quantity of order
- Data availability
- Inventory
- Quantity of data
- Country's all garment's inventory elements.
- Availability of data

## 2.3 Performance Requirements:

It is very important to maintain performance of any software system. To ensure performance, we need to maintain some steps. Now, I will explain some perspective by which we are going to enhance the performance of our project.

### 2.3.1 Speed & Latency Requirements:

Speed and latency requirements must be ensured while retrieving data from the cloud server.

<b>SLR-1</b>	<b>update result must be faster</b>
<b>Description</b>	When inventory manager stock out any products. After few seconds it's updated and show this result.
<b>Stakeholders</b>	Inventory Manager

## 2.3.2 Precision & Accuracy Requirements:

Result that is to be shown to the end user is needs to be accurate. Because, wrong information might be ruined the whole business process.

<b>PAR-1</b>	<b>Search result must be accurate</b>
<b>Description</b>	When inventory manager stock out any amounts of product .Calculation result must be correct.
<b>Stakeholders</b>	Inventory Manager

## 2.3.3 Capacity Requirements:

The developed system by us must be capable to handle user data, provide accurate information, handling database, manage http request etc.

<b>CR-1</b>	<b>The system will handle thousands of data</b>
<b>Description</b>	The system need to handle data thousands of data every moment.
<b>Stakeholders</b>	Inventory Manager

## 2.4 Dependability Requirements:

The term dependability is measured based on four dimensions. Such as:

- Availability
- Reliability
- Safety
- Security

If we want to say that our application system is dependable then it must fulfill the four dimensions. But there are other tasks. Like there is no way to make mistakes or our system should have the ability to detect and then remove errors. Besides that, it is also very important to limit the damage which might be caused by system failure.

## 2.4.1 Reliability & Availability Requirements:

Now, I will mention requirements which is related to reliability and availability.

<b>RAR-1</b>	<b>The system must be available on 24 X 7</b>
<b>Description</b>	Our system must be available all day long, every day in a week <ul style="list-style-type: none"><li>• The system must be updated regularly</li></ul>
<b>Stakeholders</b>	Inventory Manager

## 2.4.2 Robustness or Fault-Tolerance Requirements:

To ensure robustness and fault-tolerance facilities to the end users, it is urgent to ensure 0% crash. Moreover, it must show accurate results.

<b>RFT-1</b>	<b>The system handles planning manager access without system errors</b>
<b>Description</b>	Not more than 3 inventory manager might hit our application system at a time. All their requests must be handled without any fault.
<b>Stakeholders</b>	Inventory Manager

## 2.4.3 Safety-Critical Requirements:

There are no safety-critical requirements in our project.

## 2.5 Maintainability & Supportability Requirements:

It is very important to provide after service or support to the end users.

### 2.5.1 Maintainability Requirements:

Not available for this project.

### 2.5.2 Supportability Requirements:

Supportability requirements may have related to some extends. Like:

- Testability
- Maintainability
- Configurability
- Serviceability
- Install ability

Our application meets all of the above requirements related to supportability.

## 2.6 Security Requirements:

Making system security as a requirement is very important. System security requirements should be its functional requirement. System security enforces security of an application system.

Functionality related to system security can either be directly tested or observed. Some security related requirements is given below:

- Signing in a planning manager
- Signing out as a planning manager
- Handling encrypted passwords

While accessing to the system, each and every module must provide a central authentication mechanism. There is also a process to prevent entering into the system by ensuring hashed password for the unauthenticated users.

### 2.6.1 Access Requirements:

For accessing to our system, there remains some authentication and authorization techniques. And every module of our system will provide it. Now I will provide an explanation below.

<b>AR-1</b>	<b>System provides security mechanism</b>
<b>Description</b>	Every module is designed in such a way that it only give access to the authorized and authenticated users.
<b>Stakeholders</b>	Inventory Manager

### 2.6.2 Integrity Requirements:

Integrity requirements refers to a security system which ensures an expectation of data quality. It also ensures that all data of the system would never be exposed to the malicious modification or accidental destruction. For that reason, we will store our user passwords as encrypted format which is impossible to decrypt. It is also called hashed password.

### 2.6.3 Privacy Requirements:

It is very important to ensure privacy of the system users. Privacy requirements enhances to protect stakeholder's privacy. In this way, all data or a partial part of data are going to be disclosed according to system's privacy policy. To ensure privacy, the central database should be protected by the anonymous. Planners permitted to get access to those data which are being associated by them or by the organization's employees which can be ensured by the planning manager log in system.

## 2.7 Usability and Human-Interaction Requirements:

The main target of developing any system is to make the system user friendly and easy to use for the end users.

### 2.7.1 Ease of Use Requirements:

Our application is easy to use and also easily understandable.

<b>EUR-1</b>	<b>System must be usable for the end users</b>
<b>Description</b>	This system is enough usable to the inventory manager by which he can use system easily.
<b>Stakeholders</b>	Inventory Manager

### 2.7.2 Personalization and Internationalization Requirements:

There are not any personalization and internationalization requirements to our system. This maiden version of our application is only be operated by a specific Garment.

### 2.7.3 Understand ability and Politeness Requirements:

It is already said that the application which we are going to develop, is understandable enough. The system provides hints to users whether any error occurred or wrong. By reading those errors inventory manager can be able to operate the system easily.

### 2.7.4 Accessibility Requirements:

Documentation are mainly two types. One is internal documentation which is generally written by the application engineers. It is prepared to make development life cycle easier for the system engineers or system analysts

### 2.7.5 User Documentation Requirements

<b>UDR-1</b>	<b>The system engineer documentation</b>
<b>Description</b>	To develop our application named GarmentsERP, firstly we have make a system analysis team as well as documentation team.
<b>Stakeholders</b>	System analysts or software developers

## 2.7.6 Training Requirements:

Training requirements involved in after service of any application. It is very necessary to properly train up end users to the system so that they would be capable to operate easily. After launching the full package to the market, firstly we provide training to the different end users like, inventory manager, planning manager, merchandiser, commercial manager.

## 2.8 Look and Feel Requirements:

Look and feel requirements mainly refers how the system will look like and how the user interface of our system will display to the users.

### 2.8.1 Appearance Requirements:

All user must know which input fields are required and which are not. For that reason, we will use labels for all input fields. Input fields might be text type, radio, checkbox etc.

<b>AR-1</b>	<b>Labels of mandatory fields must be bold</b>
<b>Description</b>	The mandatory field's label must be bold and all input fields must have placeholder to make it easier for the users.
<b>Stakeholders</b>	All users of the system

## 2.9 Operational and Environmental Requirements:

Operational and environmental requirement refers to the capabilities, performance measurements, process, measurements of effectiveness, measurements of performance, measures of sustainability, measurements of technical performances etc.

### 2.9.1 Expected Physical Requirements:

There are no expected physical requirements in our system.

### 2.9.2 Requirements for Interfacing with Adjacent Systems:

There are no requirements for interfacing with adjacent system for our project. Because it is a desktop and web based system.

## **2.9.3 Release Requirements:**

There are no specific release requirements in our system. Because it is a live project.

## **2.10 Legal Requirements:**

Legal requirements normally refer to the terms and conditions or privacy policy of any organizations. The terms and condition of our application is that, no third party software or person are allowed to engage to use our data for their business purpose.

### **2.10.1 Compliance Requirements:**

There are no specific compliance requirements for our system.

### **2.10.2 Standards Requirements:**

As I said above there are no specific standards requirements for our system.

# **Chapter 3**

## **Requirement Analysis**

### 3.1 Use case Diagram



Figure 4.1: Use Case Diagram of “GarmentsERP System” Project

### 3.1.1 Register User

<b>Use Case Title</b>	<b>Register User</b>
<b>Goal</b>	Create account for Log in
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>• User enter a valid email</li> <li>• User enter a valid password</li> </ul>
<b>Success End Condition</b>	User Successfully Create an account
<b>Failure End Condition</b>	User can't Create an account
<b>Primary Actors:</b> <b>Secondary Actors:</b>	User System
<b>Description / Main Success Scenario</b>	User entered a valid email and password for login the system.
<b>Alternative Flows</b>	N/A
<b>Quality Requirements</b>	N/A

### 3.1.2 Manage Account

<b>Use Case Title</b>	<b>Manage Account</b>
<b>Goal</b>	Properly Login and Logout
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>• Enter Email</li> <li>• Enter Password</li> </ul>
<b>Success End Condition</b>	User Successfully Login
<b>Failure End Condition</b>	User Can't Login
<b>Primary Actors:</b> <b>Secondary Actors:</b>	User System
<b>Trigger</b>	User entered valid email and password for login and log out properly.
<b>Description / Main Success Scenario</b>	User entered valid email and password for login and log out properly.
<b>Alternative Flows</b>	N/A
<b>Quality Requirements</b>	N/A

### 3.1.3 Add Accessories

<b>Use Case Title</b>	<b>Add Accessories</b>
<b>Goal</b>	User can add accessories information.
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>Log in first in the system</li> </ul>
<b>Success End Condition</b>	User Successfully add accessories
<b>Failure End Condition</b>	User Can't add accessories
<b>Primary Actors:</b> <b>Secondary Actors:</b>	User System
<b>Description / Main Success Scenario</b>	User can add different types of accessories.
<b>Alternative Flows</b>	N/A
<b>Quality Requirements</b>	N/A

### 3.1.4 Add Yarn

<b>Use Case Title</b>	<b>Add Yarn</b>
<b>Goal</b>	User can add yarn information.
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>Log in first in the system</li> </ul>
<b>Success End Condition</b>	User Successfully add yarn information
<b>Failure End Condition</b>	User Can't add yarn information
<b>Primary Actors:</b> <b>Secondary Actors:</b>	User System
<b>Description / Main Success Scenario</b>	User can add different types of yarn information.
<b>Alternative Flows</b>	N/A
<b>Quality Requirements</b>	N/A

### 3.1.5 Add Fabric

<b>Use Case Title</b>	<b>Add Fabric</b>
<b>Goal</b>	User can add fabric information.
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>• Log in first in the system</li> </ul>
<b>Success End Condition</b>	User Successfully add fabric information
<b>Failure End Condition</b>	User Can't add fabric information
<b>Primary Actors:</b> <b>Secondary Actors:</b>	User System
<b>Description / Main Success Scenario</b>	User can add different types of fabric information.
<b>Alternative Flows</b>	N/A
<b>Quality Requirements</b>	N/A

### 3.1.6 Add Dyes and Chemical

<b>Use Case Title</b>	<b>Add Dyes and Chemical</b>
<b>Goal</b>	User can add dyes and chemical information.
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>• Log in first in the system</li> </ul>
<b>Success End Condition</b>	User Successfully add dyes and chemical information
<b>Failure End Condition</b>	User Can't add dyes and chemical information
<b>Primary Actors:</b> <b>Secondary Actors:</b>	User System
<b>Description / Main Success Scenario</b>	User can add different types of dyes and chemical information.
<b>Alternative Flows</b>	N/A
<b>Quality Requirements</b>	N/A

### 3.1.7 Update Accessories

<b>Use Case Title</b>	<b>Update accessories</b>
<b>Goal</b>	User can update accessories information.
<i>Preconditions</i>	<ul style="list-style-type: none"> <li>• Log in first in the system</li> <li>• View accessories info</li> </ul>
<i>Success End Condition</i>	User Successfully update accessories information
<i>Failure End Condition</i>	User Can't update accessories information
<i>Primary Actors:</i> <i>Secondary Actors:</i>	User System
<i>Description / Main Success Scenario</i>	User can update accessories information.
<i>Alternative Flows</i>	N/A
<i>Quality Requirements</i>	N/A

### 3.1.8 Update Yarn

<b>Use Case Title</b>	<b>Update Yarn</b>
<b>Goal</b>	User can update Yarn information.
<i>Preconditions</i>	<ul style="list-style-type: none"> <li>• Log in first in the system</li> <li>• View Yarn info</li> </ul>
<i>Success End Condition</i>	User Successfully update yarn information
<i>Failure End Condition</i>	User Can't update yarn information
<i>Primary Actors:</i> <i>Secondary Actors:</i>	User System
<i>Description / Main Success Scenario</i>	User can update yarn information.
<i>Alternative Flows</i>	N/A
<i>Quality Requirements</i>	N/A

### 3.1.9 Update Fabric

<b>Use Case Title</b>	<b>Update Fabric</b>
<b>Goal</b>	User can update fabric information.
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>• Log in first in the system</li> <li>• View fabric info</li> </ul>
<b>Success End Condition</b>	User Successfully update fabric information
<b>Failure End Condition</b>	User Can't update fabric information
<b>Primary Actors:</b> <b>Secondary Actors:</b>	User System
<b>Trigger</b>	
<b>Description / Main Success Scenario</b>	User can update fabric information.
<b>Alternative Flows</b>	N/A
<b>Quality Requirements</b>	N/A

### 3.1.10 Update Dyes and Chemical

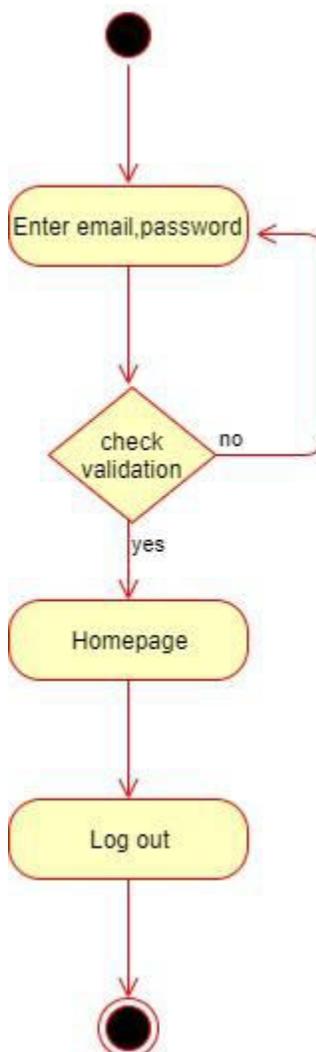
<b>Use Case Title</b>	<b>Update dyes and chemical</b>
<b>Goal</b>	User can update dyes and chemical information.
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>• Log in first in the system</li> <li>• View dyes and chemical info</li> </ul>
<b>Success End Condition</b>	User Successfully update dyes and chemical information
<b>Failure End Condition</b>	User Can't update dyes and chemical information
<b>Primary Actors:</b> <b>Secondary Actors:</b>	User System
<b>Description / Main Success Scenario</b>	User can update dyes and chemical information.
<b>Alternative Flows</b>	N/A
<b>Quality Requirements</b>	N/A

## 3.2 Activity Diagram

We have prepared some activity diagram according to our use case. These activity diagrams are properly referring the flow of the individual conditions of our project.

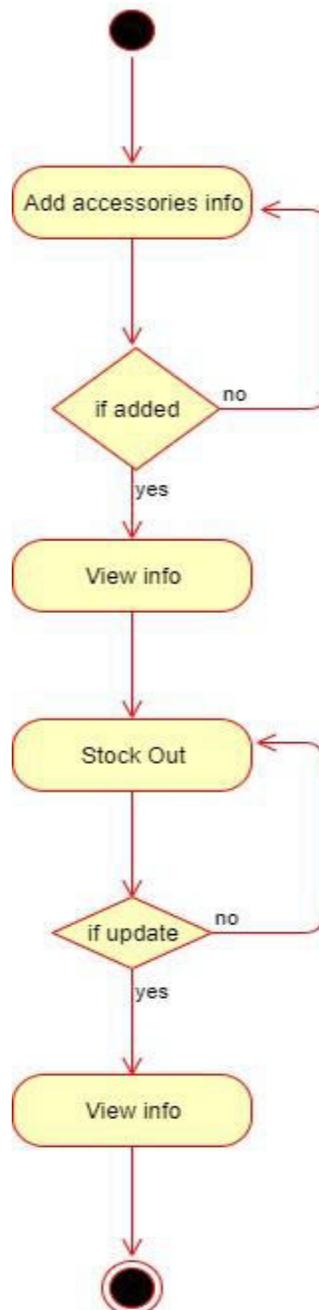
### 3.2.1 Manage Account

Every system needs to be login option for security. At this reason user at first create an account using valid email and password. Then enter email password for login this system. If information is valid then show homepage or invalid then back to the login page. User can log out also.



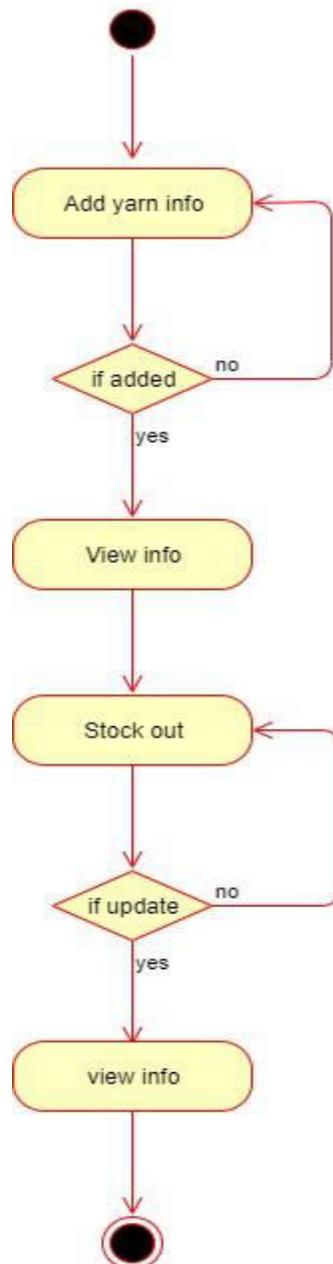
## 3.2.2 Add Accessories

When user add accessories successfully system show it otherwise back to the add accessories option. When user needs to update the information system calculate it successfully and show update page or if unsuccessful system back to the stock out option.



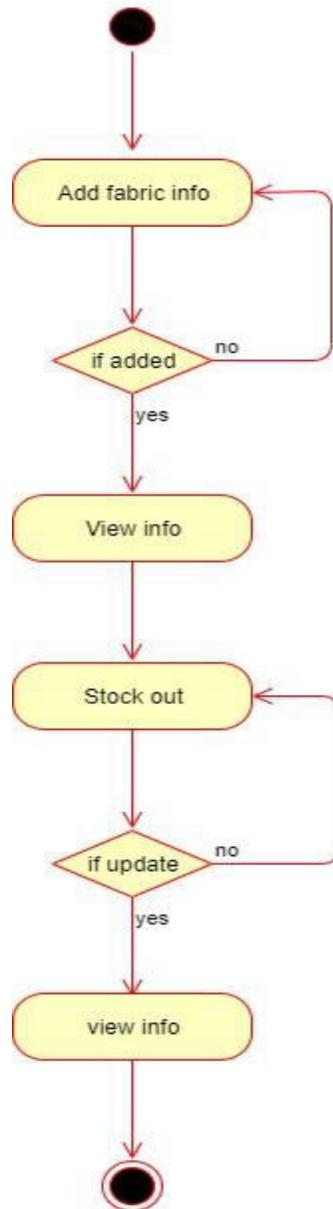
### 3.2.3 Add Yarn

When user add yarn successfully system show it otherwise back to the add yarn option. When user needs to update the information system calculate it successfully and show update page or if unsuccessful system back to the stock out option.



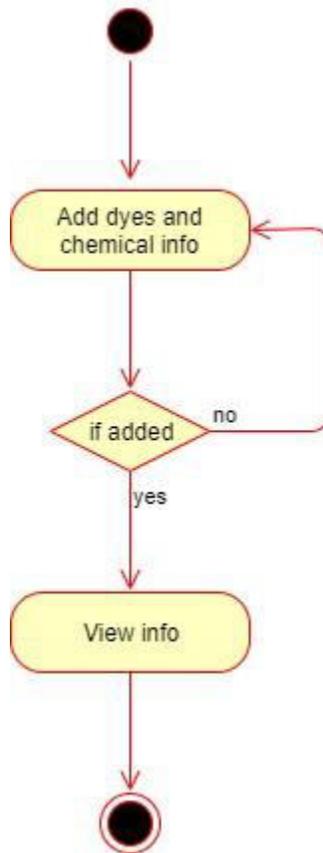
### 3.2.4 Add Fabric

When user add fabric successfully system show it otherwise back to the add yarn option. When user needs to update the information system calculate it successfully and show update page or if unsuccessful system back to the stock out option.



### 3.2.5 Add Dyes and Chemical

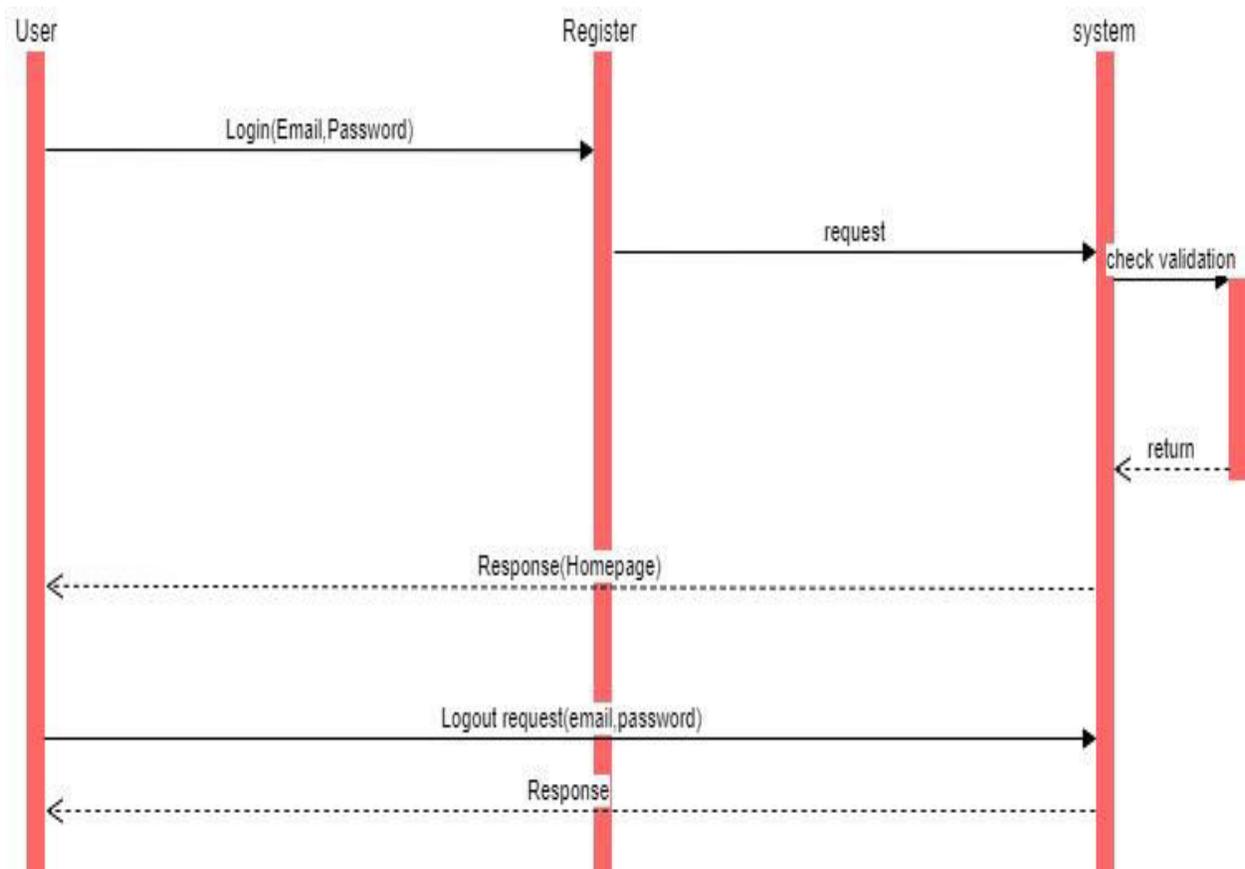
When user add dyes and chemical successfully system show it otherwise back to the add yarn option. When user needs to update the information system calculate it successfully and show update page or if unsuccessful system back to the stock out option.



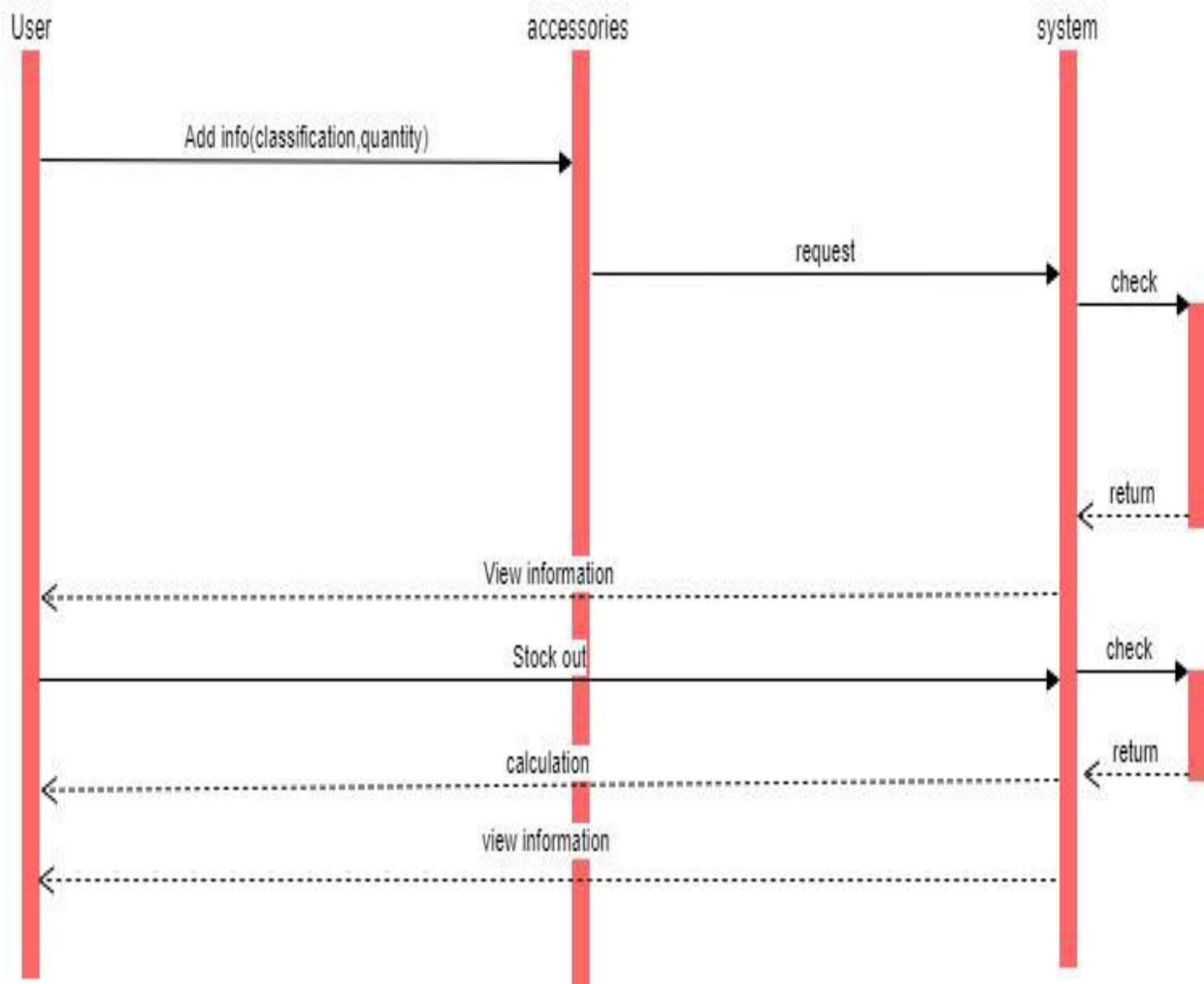
## 3.3 Sequence Diagrams

Mainly sequence diagrams understand us how the data will be followed in any application. Now we are going to show some sequence diagrams.

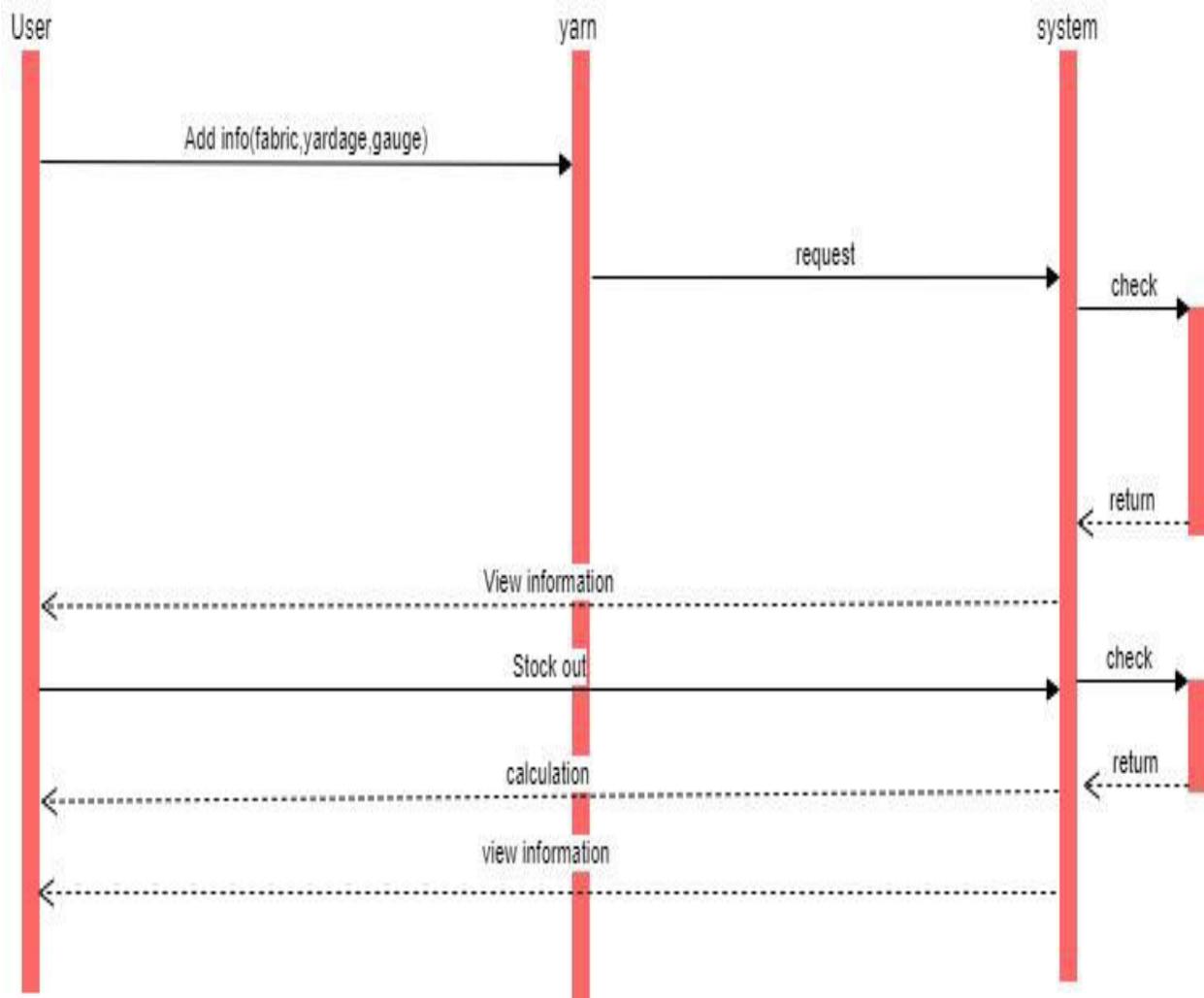
### 3.3.1 Manage Account:



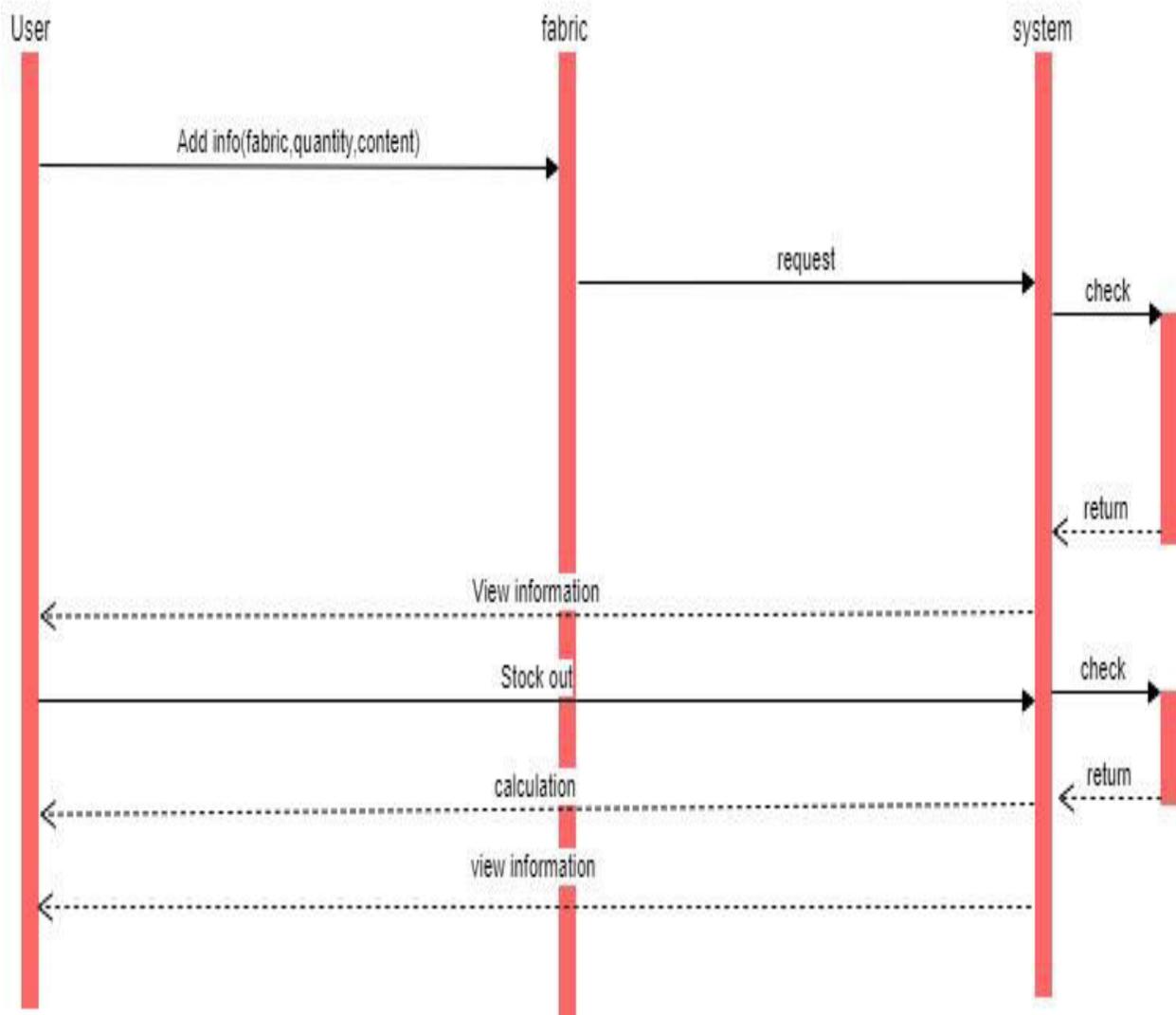
### 3.3.2 Add Accessories:



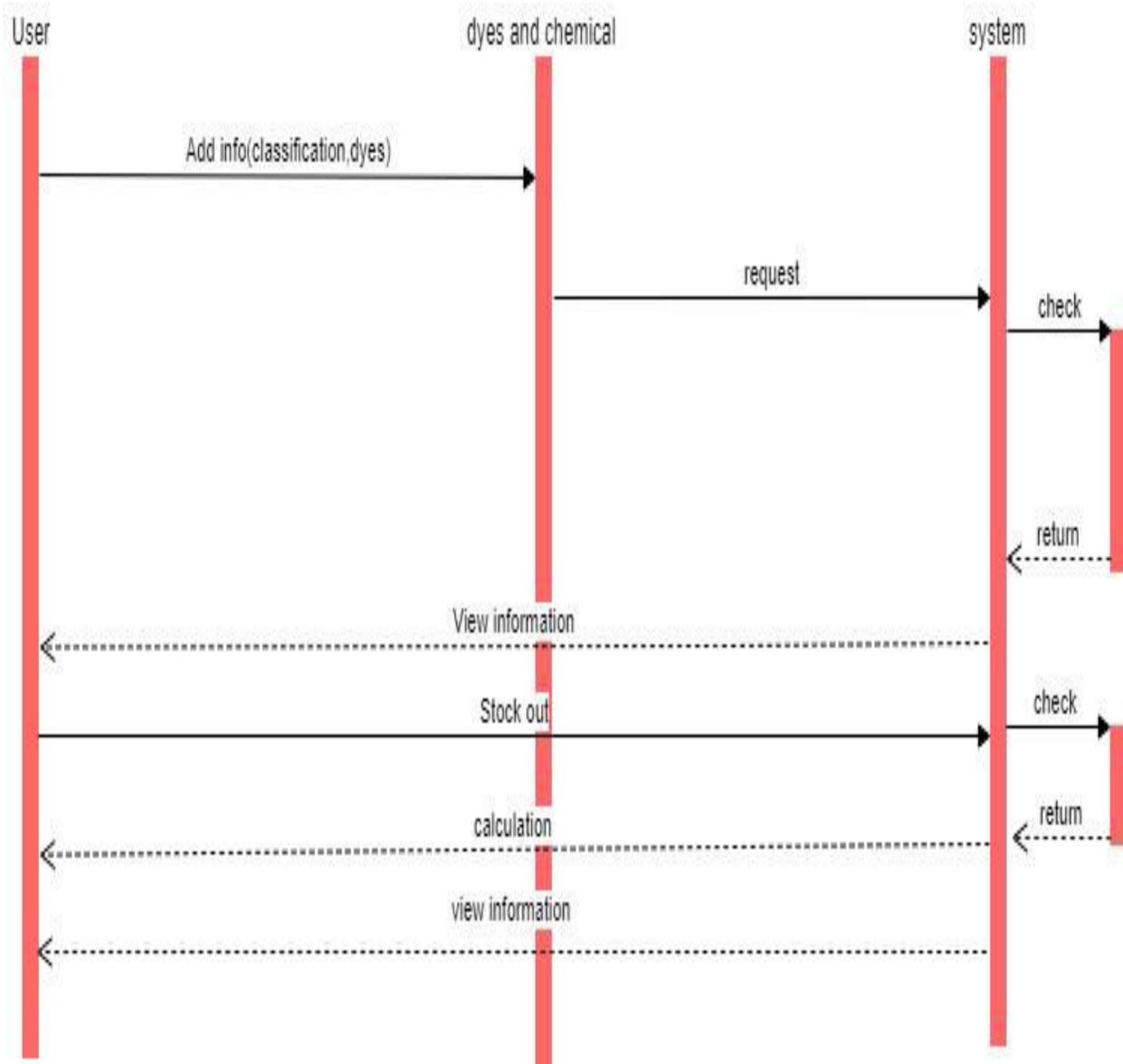
### 3.3.3 Add Yarn:



### 3.3.4 Add Fabric:



### 3.3.5 Add Dyes and Chemical:



# **Chapter 4**

## **System Design Specification**

## **4.1 Development tools and technology**

Software development tools are used to develop software. There are different kinds of tools for software developers to make the process of software development very smooth. But now I will mention some of tools that I am using to develop my project.

### **4.1.1 User Interface Technology**

First of all, after landing any application, interface of that software is appeared to the user. So, the importance of user interface is very high. For success of any software application, a good looking user interface plays a vital role. User interface includes using good image, graphics, typography, style sheets, scripting etc.

### **4.1.2 Programming Language**

For developing any application system minimum one programming language is essential. In my application, there are two different programming language is used. One is for front-end side. And another is for server side. The front-end language that I have used to my application is JavaScript. And the server side programming language name is PHP which stands for Hypertext Preprocessor. Both of them are open source general purpose scripting language.

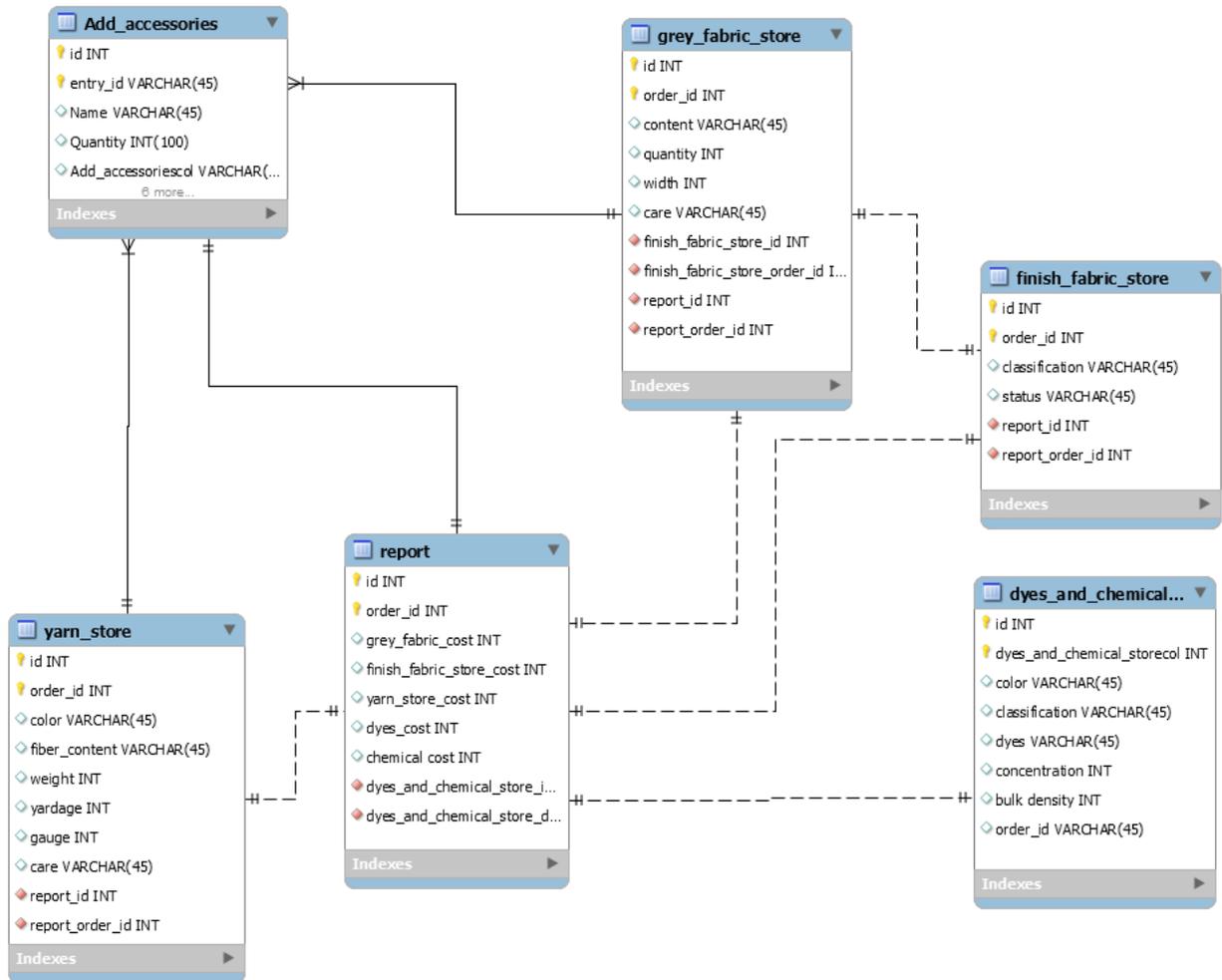
### **4.1.3 Implemented tools and platform**

As I have said before, there are some tools and technologies that need to be used for developing software. It is very important to determine which tools and platforms are the best match of my requirements. After making a proper decision, one need to start using them.

## **4.2 Web Server**

We have used apache server. It is a free and open source software to use. It can be used on cross platform. It supports a wide range of features and most of them are already implemented as compiled modules. This module can extend the main features or core functionality.

### 4.3 Database Design Diagram

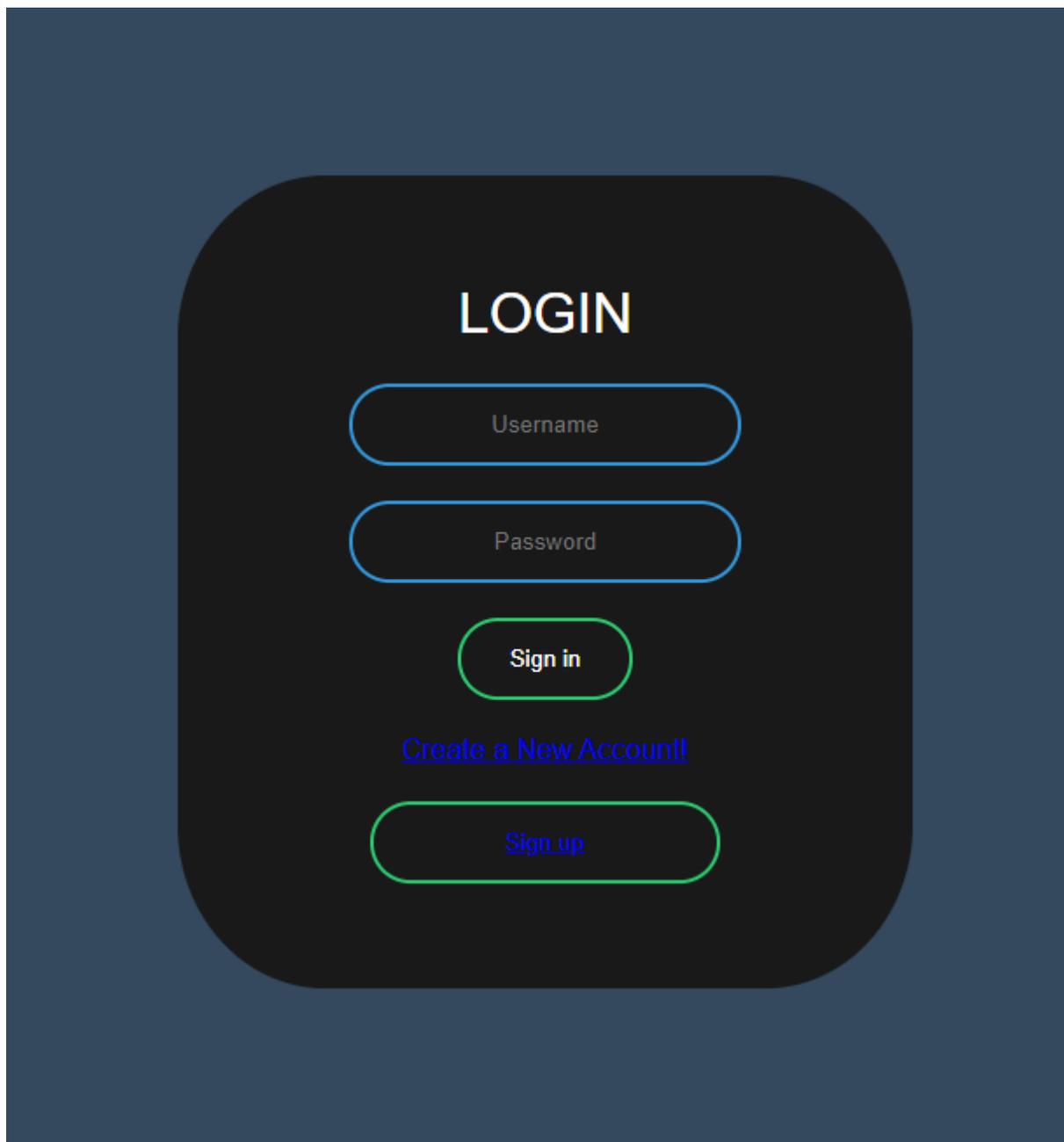


# **Chapter 5**

## **User Manual**

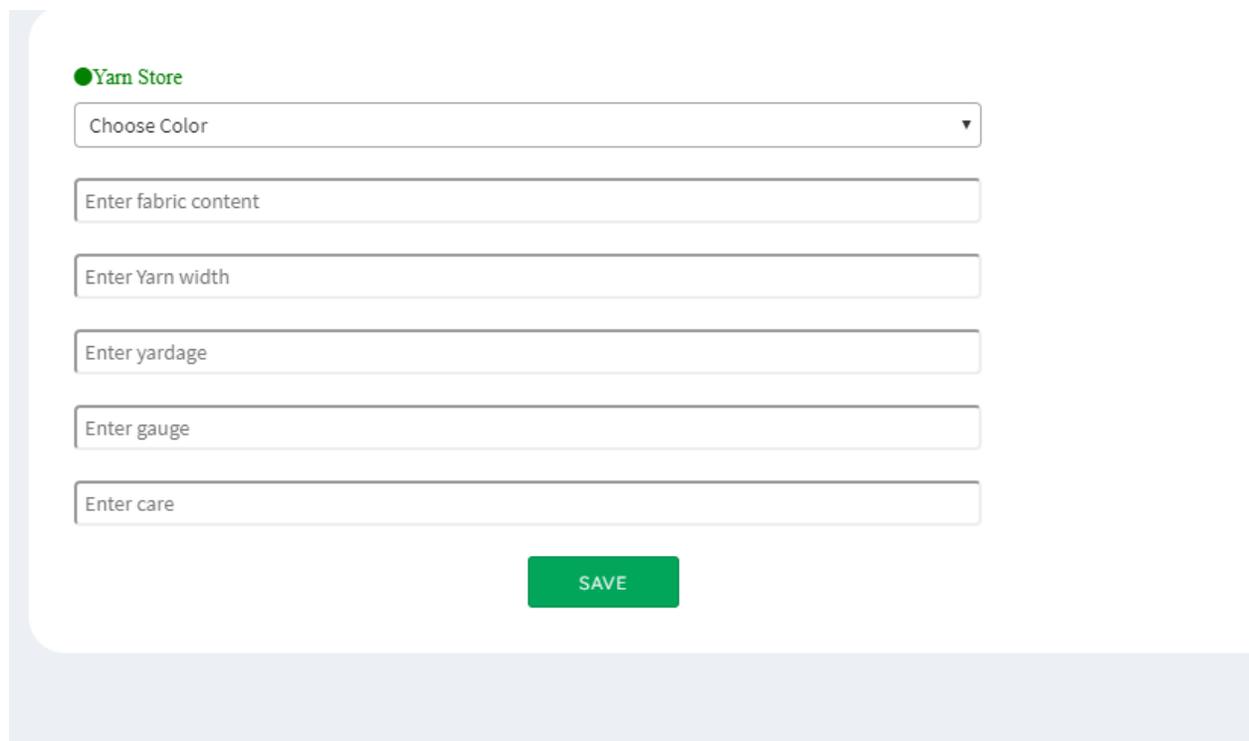
## 5.1 Login Page

User need to login for using this system. But before that they need to be authenticate. First of all, they need to enter into the login page and fill up the required information. After that they will get access. Now I will provide the screenshot of login page below.



## 5.2 Yarn Add Page

User can add yarn information. Now I will provide the screenshot of login page below.



The screenshot shows a form titled "Yarn Store" with a green dot icon. The form contains six input fields: a dropdown menu for "Choose Color", and five text input fields for "Enter fabric content", "Enter Yarn width", "Enter yardage", "Enter gauge", and "Enter care". A green "SAVE" button is positioned below the input fields.

● Yarn Store

Choose Color ▼

Enter fabric content

Enter Yarn width

Enter yardage

Enter gauge

Enter care

SAVE

## 5.3 Yarn View Page

User can view yarn information. Now I will provide the screenshot of login page below.

**All Yarn store List**

Color	Fabric Content	Yarn Width	Yardage	Gauge	Care	Modify Date		
White	sdv	28	gghghj	65	ddf	2019-11-25 02:57:42	<a href="#">Stock Out</a>	<a href="#">Delete</a>
Red	12	0	5	5	ttt	2019-12-01 23:35:00	<a href="#">Stock Out</a>	<a href="#">Delete</a>

## 5.4 Yarn Stock out Page

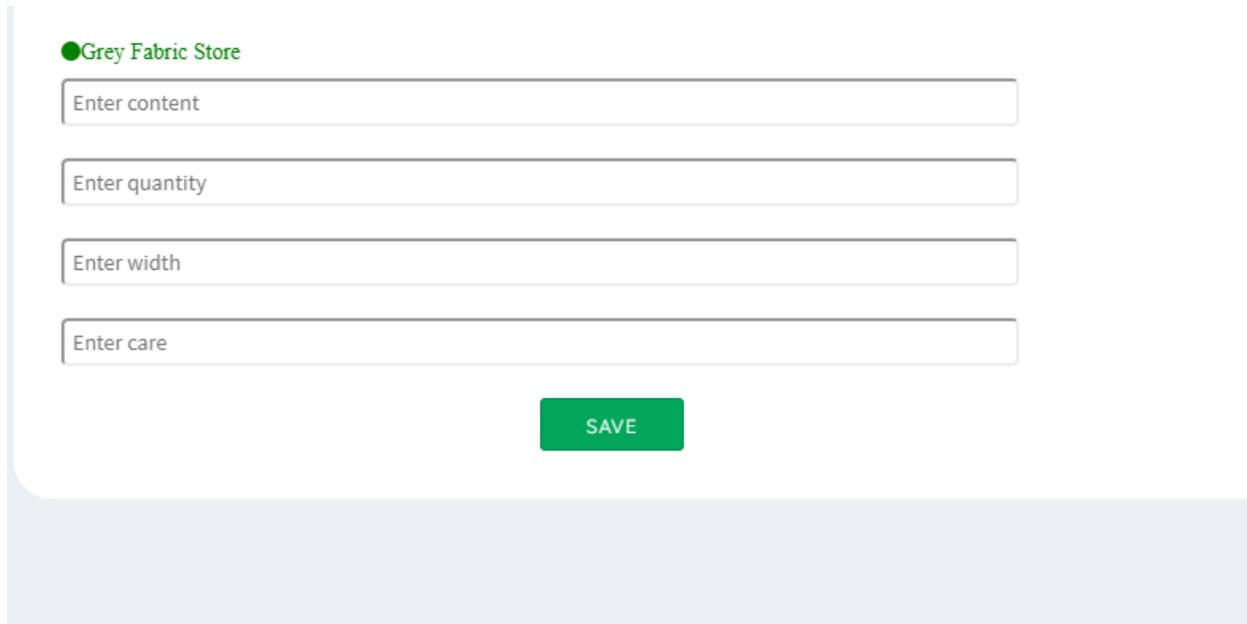
User can stock out yarn information. Now I will provide the screenshot of login page below

YARN STOCK OUT

Color	<input type="text" value="Red"/>
Fabric Content	<input type="text" value="12"/>
Yarn Width	<input type="text" value="0"/>
Yardage	<input type="text" value="5"/>
Gauge	<input type="text" value="5"/>
Care	<input type="text" value="ttt"/>

## 5.5 Fabric Add Page

User can add fabric information. Now I will provide the screenshot of login page below

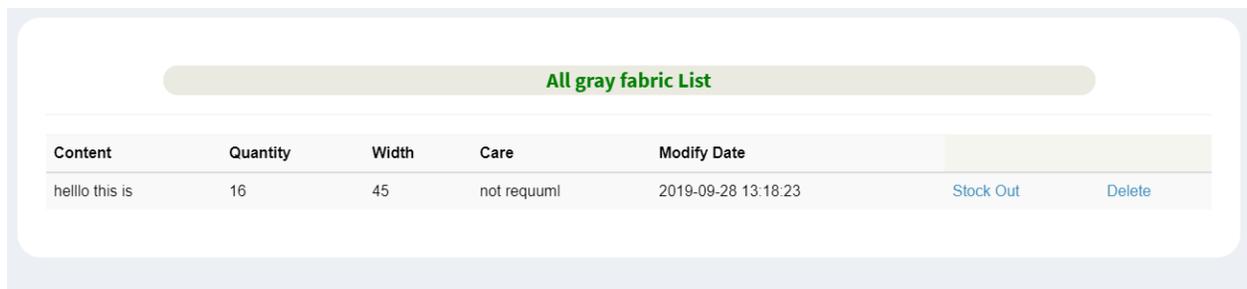


● Grey Fabric Store

  
  
  
  
[SAVE](#)

## 5.6 Fabric View Page

User can view fabric information. Now I will provide the screenshot of login page below



All gray fabric List

Content	Quantity	Width	Care	Modify Date	Stock Out	Delete
hello this is	16	45	not requuml	2019-09-28 13:18:23	Stock Out	Delete

## 5.7 Fabric Stock out Page

User can stock out fabric information. Now I will provide the screenshot of login page below

GRAY FABRIC STOCK OUT

Content	hello this is
Quantity	16
Width	45
Care	not requuml

STOCK OUT

## 5.8 Add dyes and chemical page

User can add dyes and chemical information. Now I will provide the screenshot of login page below

● Dyes & Camical Store

Choose Color

Enter classification

Enter dyes

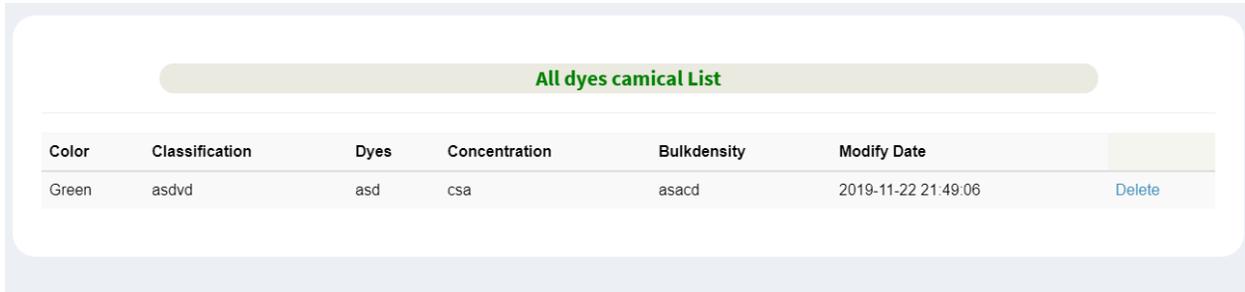
Enter concentration

Enter bulk density

SAVE

## 5.9 Dyes and chemical View page

User can view dyes and chemical information. Now I will provide the screenshot of login page below



Color	Classification	Dyes	Concentration	Bulkdensity	Modify Date	
Green	asdvd	asd	csa	asacd	2019-11-22 21:49:06	<a href="#">Delete</a>

# **Chapter 6**

## **Conclusion**

## 6.1 Project Summary

I have started to develop this project from August. From the very starting of development of this project, it demands hard working, patients, persistency to meet the requirements of stakeholders. After that I have proposed the design. And then start to work.

Database plays a vital role for any application software. And so this is why, I have designed the database diagram having tables with proper relationship. After that, I have prepared the user interface and take their approval to continue to the next part. It is to be said that, the interface of my application is very simple and easy to understand. After completing that, I have started to write the core functionality of the project.

Developing project is not end of all tasks actually. There are some other important tasks to perform. And that is testing. It is also known as quality assurance also. Almost at every software company there are a quality assurance team. Their main responsibility is to find the loop holes or vulnerability of software. If there any bug remains before handover to the stakeholders, there is a change to ruin the whole project. So testing plan is very important. And after developing the project, I have assured the quality of this project.

## 6.2 Obstacles and Achievements

I believe that if there are not any obstacles to develop a project, then there doesn't have any challenges. Because we know, challenges give us the opportunity to prove ourselves. Obstacles, challenges and achievements are like a path to the success.

Before starting this project, I didn't know the actual flow of software development life cycle. By developing this project, I have learnt to know how to have a row requirement from clients. After that I have learnt system analysis, database design and many things. My supervisor helps me a lot from the very beginning of the development of this project.

There are some other obstacles and achievements also that I will describe below.

- **Lack of Stakeholder's Engagement:** There are different types of stakeholders in our application. And each stakeholder uses different functionality. And almost they are busy with their day to day activities. So this is why, I didn't get all of them in proper time.
- **Scope Change:** Sometimes, some features need to be changed or modified. Then I need to follow reverse engineering process. And again designed to meet the new requirements. It also made me frustrated sometimes.

## 6.3 Future Scope

I have learnt a lot throughout the whole development stage of this project. For making this project developed, I have also meet some young entrepreneurs and enthusiasts also. I am very much thankful to all of them as their idea and discussion gave me some opportunities to make my product complete. It will help me to work with similar type project in future also.

## 6.4 References

I have gained some knowledge from some platforms. Obviously I will mention those references. For making my project successful those resources help me a lot. Not I will mention the names below.

- [www.google.com](http://www.google.com)
- [www.youtube.com](http://www.youtube.com)
- [www.github.com](http://www.github.com)
- [www.developers.android.com](http://www.developers.android.com)
- [www.wikipedia.com](http://www.wikipedia.com)
- [www.php.net](http://www.php.net)
- [www.mysql.com](http://www.mysql.com)
- [www.mysql.com/products/workbench](http://www.mysql.com/products/workbench)
- [www.themeforest.net](http://www.themeforest.net)
- [www.getbootstrap.com](http://www.getbootstrap.com)
- [www.w3schools.com](http://www.w3schools.com)
- [www.jquery.com](http://www.jquery.com)
- [www.sublimetext.com/3](http://www.sublimetext.com/3)
- [www.apachefriends.org](http://www.apachefriends.org)