

# Software Requirements Specification (SRS) Document

Project: Inventory Management System for Malkha  
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## Brief problem statement

Malkha is a Non-governmental Organisation which works to uplift the handloom weavers. Handloom sector is run by people in rural areas who aren't tech savvy. Handloom has been made an organised sector by the government; however, the weavers find it difficult to be organised. Weavers and farmers struggle to fill GST returns which is required for a formal sector economy.

Currently the inventory is managed separately at the different steps (spinning, dyeing and weaving). The requirement is to integrate the inventory management of all the processes

There is a lot of imitation by power-looms of handloom cloth. Power-loom textile being much cheaper, crushes the handloom industry. Buyers are fooled into believing that the power-loom textile is handloom. Hence, a method for authentication must be introduced.

## System requirements

1. IDEs/Text Editors
  - a. Visual Studio Code
2. Collaboration Tools
  - a. WhatsApp
  - b. Google Meet
  - c. GitLab
  - d. Microsoft Teams
3. Programming Languages + Technologies
  - a. MERN stack (Mongo DB, Express, React, Node JS)

## Users' profile

The users can be classified based on whether they are involved in making the product (the Malkha textile) or whether they are the customer.

### - Product Side

- **Spinning:** Happens in the spinning mills. There is only 1 spinning mill associated with the Malkha weavers, and there is possible plan of increasing it to two.
- **Dyeing:** There is one dyeing unit and no plans of increasing currently.
- **Weaving:** The weavers are decentralised. It doesn't happen under one roof unlike spinning and dyeing.

Most of these processes involve rural people who have less technological knowledge. They may not have strong access to the internet. The application must be accessible from both a smartphone and a computer.

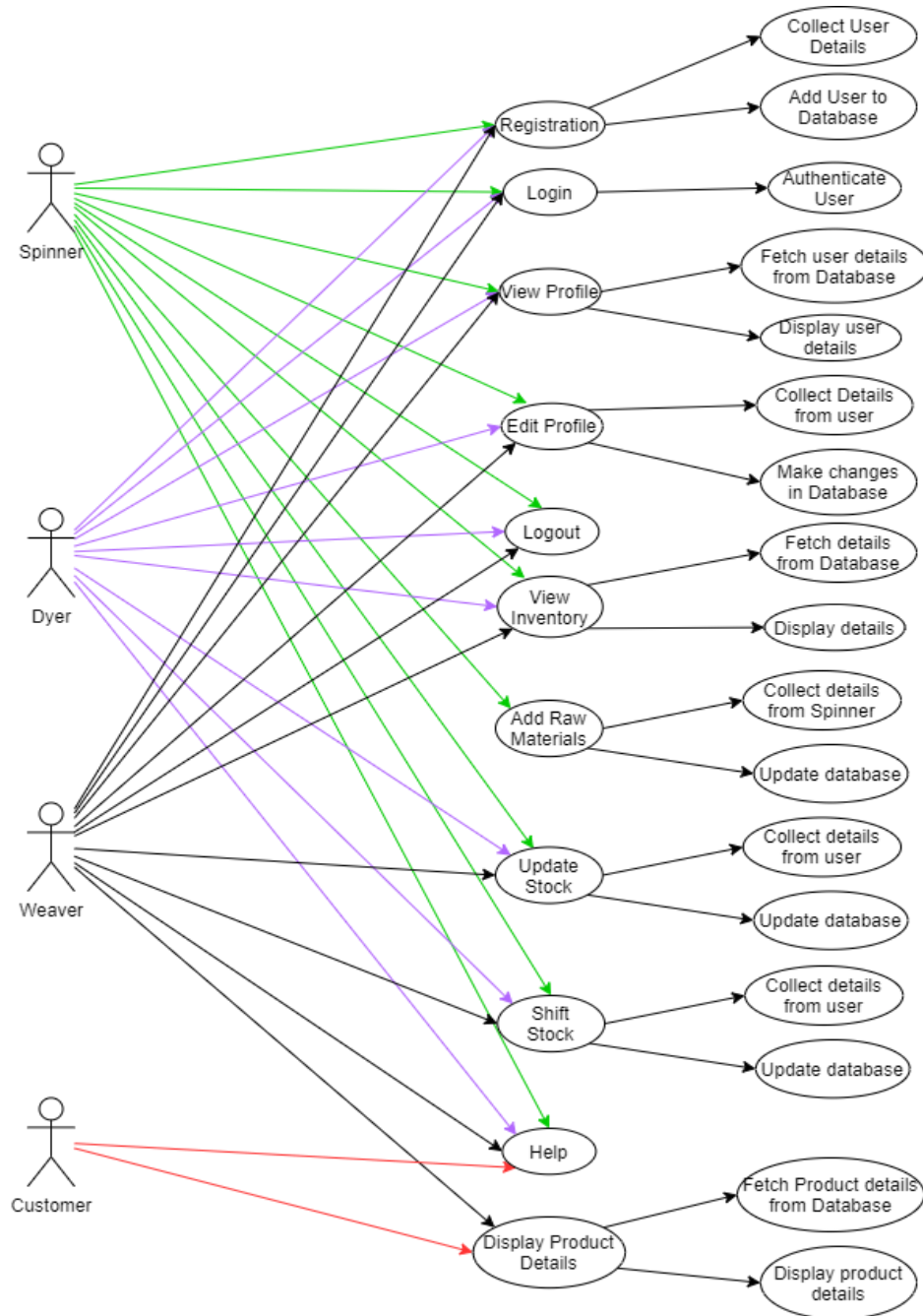
- **Customer side.** Just a simple interface showing the authenticity of the product. Not many functionalities are expected. The customer must be able to access it from both a smartphone and a computer.

## Feature requirements (described using use cases)

No .	User Case Name	Description	Release
1.	Registration	A common registration page for the new users. This page will be common for Spinners, dyers and weavers. Not applicable to customers. Ask details from the user and create account. Save details in the database.	
2.	Login	A common login page for the new users. This page will be common for Spinners, dyers and weavers. Not applicable to customers. Authenticate if the user has an account.	
3.	View profile	Display the profile details of the user.	
4.	Edit Profile	Allow the user to edit some details.	
5.	Log Out	Allow the user to logout of the page.	
6.	View inventory	The user can view the stock of the items which they have currently.	
7.	Add raw items	This is available only for the spinner. The spinner adds the amount of raw cotton he has procured.	
8.	Update stock	This allows the user to update the stock of the finished product (of this stage) and update the amount of raw material used. (example: Spinner can update amount of yarn produced and the amount of cotton used)	
9.	Shift stock	This allows the user to shift the stock of products (of that stage) to the next stage (where it would be raw material). (example: spinner can shift the yarn to the	

		dyer. This should reduce the stock of yarn with spinner and increase stock of raw material (yarn) of dyer).	
10.	Help	Provide contact information of Malkha	
11.	Display Product details	Display details of the weaver, dyer and spinner involved in making that fabric.	

### Use case diagram



## Use case description

<b>Use Case Number:</b>	UC-1
<b>Use Case Name:</b>	Registration
<b>Overview:</b>	A common registration page for the new users. This page will be common for Spinners, dyers and weavers. Not applicable to customers. Ask details from the user and create account. Save details in the database.
<b>Actors:</b>	Spinner Dyer Weaver
<b>Pre condition:</b>	Starting state
<b>Flow:</b>	Main (success) Flow: <ol style="list-style-type: none"><li>1. Collect data from user and create account.</li><li>2. Take user to user dashboard.</li></ol>
	Alternate Flows: <ol style="list-style-type: none"><li>1. If user account pre-exists: Go to Login Page.</li><li>2. If insufficient details/ unexpected details: Stay in registration page.</li></ol>
<b>Post Condition:</b>	User has an account. User is either spinner, dyer or weaver.

<b>Use Case Number:</b>	UC-2
<b>Use Case Name:</b>	Login
<b>Overview:</b>	A common login page for the new users. This page will be common for Spinners, dyers and weavers. Not applicable to customers. Authenticate if the user has an account.
<b>Actors:</b>	Spinner Dyer Weaver
<b>Pre condition:</b>	Starting state
<b>Flow:</b>	Main (success) Flow:

	<ol style="list-style-type: none"> <li>1. Collect data from user and authenticate if account exists.</li> <li>2. Take user to user dashboard.</li> </ol>
	<p>Alternate Flows:</p> <ol style="list-style-type: none"> <li>1. If user account doesn't exist: Go to Registration Page.</li> <li>2. If incorrect credentials: Alert and stay in Login page.</li> </ol>
<b>Post Condition:</b>	User has an account. User is either spinner, dyer or weaver.

<b>Use Case Number:</b>	UC-3
<b>Use Case Name:</b>	View Profile
<b>Overview:</b>	Display the profile details of the user.
<b>Actors:</b>	Spinner Dyer Weaver
<b>Pre condition:</b>	User has an account and is logged in. Click View Profile tab.
<b>Flow:</b>	Main (success) Flow: <ol style="list-style-type: none"> <li>1. Display User details</li> </ol>
	Alternate Flows: None
<b>Post Condition:</b>	User has an account. User is either spinner, dyer or weaver. User is logged in.

<b>Use Case Number:</b>	UC-4
<b>Use Case Name:</b>	Edit Profile
<b>Overview:</b>	Allow the user to edit some details.
<b>Actors:</b>	Spinner Dyer Weaver
<b>Pre condition:</b>	User has an account and is logged in. Click Edit Profile button.

<b>Flow:</b>	Main (success) Flow: 1. Collect user details and update database
	Alternate Flows: None
<b>Post Condition:</b>	User has an account. User is either spinner, dyer or weaver. User is logged in.

<b>Use Case Number:</b>	UC-5
<b>Use Case Name:</b>	Logout
<b>Overview:</b>	Allow the user to logout of the page.
<b>Actors:</b>	Spinner Dyer Weaver
<b>Pre condition:</b>	User has an account and is logged in. Click Logout Button.
<b>Flow:</b>	Main (success) Flow: 1. Logout the user.
	Alternate Flows: None
<b>Post Condition:</b>	User isn't logged in anymore.

<b>Use Case Number:</b>	UC-6
<b>Use Case Name:</b>	View Inventory
<b>Overview:</b>	The user can view the stock of the items which they have currently.
<b>Actors:</b>	Spinner Dyer Weaver
<b>Pre condition:</b>	User has an account and is logged in. Click View Inventory tab.
<b>Flow:</b>	Main (success) Flow: 1. Retrieve inventory data from the database and display.
	Alternate Flows: None

<b>Post Condition:</b>	User has an account. User is either spinner, dyer or weaver. User is logged in.
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<b>Use Case Number:</b>	UC-7
<b>Use Case Name:</b>	Add Raw materials
<b>Overview:</b>	This is available only for the spinner. The spinner adds the amount of raw cotton he has procured.
<b>Actors:</b>	Spinner
<b>Pre condition:</b>	User is a spinner and has an account and is logged in. Click add raw materials tab.
<b>Flow:</b>	Main (success) Flow: 1. Collect data from user and update in database.
	Alternate Flows: None
<b>Post Condition:</b>	User has an account. User is a spinner. User is logged in.

<b>Use Case Number:</b>	UC-8
<b>Use Case Name:</b>	Update Stock
<b>Overview:</b>	This allows the user to update the stock of the finished product (of this stage) and update the amount of raw material used. (example: Spinner can update amount of yarn produced and the amount of cotton used)
<b>Actors:</b>	Spinner Dyer Weaver
<b>Pre condition:</b>	User has an account and is logged in. Click Update Stock tab.
<b>Flow:</b>	Main (success) Flow: 1. Collect data from user and update in database.
	Alternate Flows: None
<b>Post Condition:</b>	User has an account. User is a spinner, dyer or weaver. User is logged in.

<b>Use Case Number:</b>	UC-9
<b>Use Case Name:</b>	Shift Stock
<b>Overview:</b>	This allows the user to shift the stock of products (of that stage) to the next stage (where it would be raw material). (example: spinner can shift the yarn to the dyer. This should reduce the stock of yarn with spinner and increase stock of raw material (yarn) of dyer).
<b>Actors:</b>	Spinner Dyer Weaver
<b>Pre condition:</b>	User has an account and is logged in. Click Shift Stock tab.
<b>Flow:</b>	Main (success) Flow: 1. Collect data from user and update in database.
	Alternate Flows: None
<b>Post Condition:</b>	User has an account. User is a spinner, dyer or weaver. User is logged in.

<b>Use Case Number:</b>	UC-10
<b>Use Case Name:</b>	Help
<b>Overview:</b>	Provide contact information of Malkha
<b>Actors:</b>	Spinner Dyer Weaver Customer
<b>Pre condition:</b>	User clicks Help tab.
<b>Flow:</b>	Main (success) Flow: 1. Display help contacts.
	Alternate Flows: None
<b>Post Condition:</b>	None



<b>Use Case Number:</b>	UC-11
<b>Use Case Name:</b>	Display Product details
<b>Overview:</b>	Display details of the weaver, dyer and spinner involved in making that fabric.
<b>Actors:</b>	Spinner Dyer Weaver Customer
<b>Pre condition:</b>	User has product code.
<b>Flow:</b>	Main (success) Flow: <ol style="list-style-type: none"> <li>1. Collect product code from user.</li> <li>2. Display product details.</li> </ol>
	Alternate Flows: None
<b>Post Condition:</b>	None