

# SMART INDIA HACKATHON

**Ministry Name:** Ministry of Textiles

**Problem Statement Title:** Application Development for monitoring of wool from farm to fabric

**PS Number :** SIH1309

**Team Name:** ZENITH

**Team Leader Name:** Aditya Anand

**Theme Name:** Transportation and Logistics

# NOVELTY

## Machine Learning for quality control

Leverage machine learning to evaluate wool quality, analyzing fiber length, strength, and color, helping farmers and processors in enhancement.

## Marketplace Integration

Farmers, manufacturers, producers and consumers are connected in an online marketplace. Providing space for communication and negotiate terms.

## Price Trend Accuracy

We used industry databases and real-time market analysis for accurate price trends, preventing user loses.

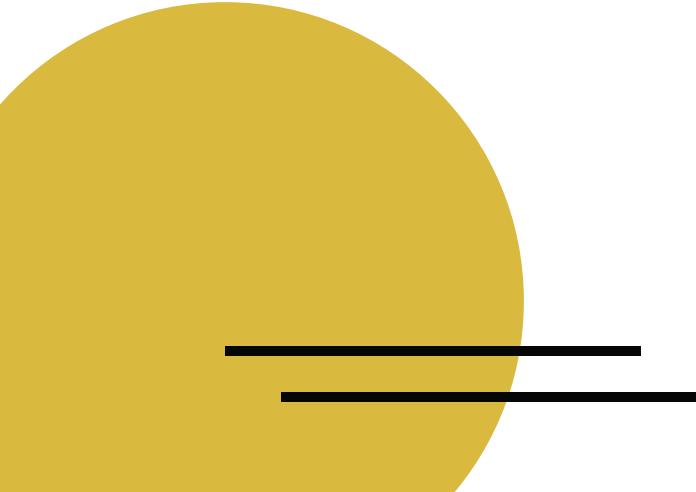
## Tracking System

GIS (Geographic Information System) Technology is used to track transport trucks and map nearby water sources, veterinary clinics and wool collection centers.

## News and Education

Provide news about relevant factors such as price trends, weather reports and help farmers to avail government schemes and contact nearby NGOs.

# FEASIBILITY OF OUR IDEA



## SPECIFIC UI

Customizing UI for regions and stakeholders including multilingual support.

## PHASED APPLICATION

Phased implementation for adaptability and effectiveness

## USING EXISTING RESOURCES

NGOs and IITP's NSS for education and government wool grading labs/services.

## ONLINE MARKETPLACE

Stakeholders can directly buy and sell products among themselves

## PREDICTIVE ANALYTICS

Using ML for efficient Logistics & Inventory management

# RAJASTHAN DISTRICT MAP

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PAKISTAN

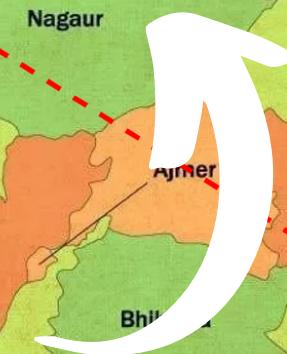
Punjab

Uttar  
Prades

Haryana

Delhi

OUR CURRENT  
REGION FOR  
PHASE ONE



Sri  
Ganganagar

Hanumangarh

Haryana

Bikaner

Sikar

Jaipur

Churu

Jhunjhunu

Dausa

Bharatpur

Dholpur

Karauli

Jaisalmer

Nagaur

Tonk Sawai  
Madhopur

Jodhpur

Ajmer

Pali

Bundi

Kota

Baran

Bhilwara

Jalore

Rajsamand

Bhilwara

Sirohi

Udaipur

Chittorgarh

Bundi

Jhalawar

Pratapgarh

Dungarpur

Banswara

Gujarat

Madhya Pradesh

# UX & FUTURE WORK PROGRESSIONS

## USER EXPERIENCE

Our app embodies user-centered design, combining deep user understanding, accessibility and personalized experiences all while delivering a clean, responsive UI with delightful interactions and a unique storytelling element.

## FUTURE WORK PROGRESSIONS

- Identifying new features to meet evolving user needs or market demands.
- Enhancing the performance of the application to make it faster and more efficient.
- Integration Of IoT and RFID System to optimize inventory more efficiently
- Exploring how the application can integrate with emerging technologies like AI, blockchain, or AR to offer new capabilities.
- Scaling the App for every wool farmers/producers of India.

# TECHNOLOGY USED

## APPLICATION DEVELOPMENT

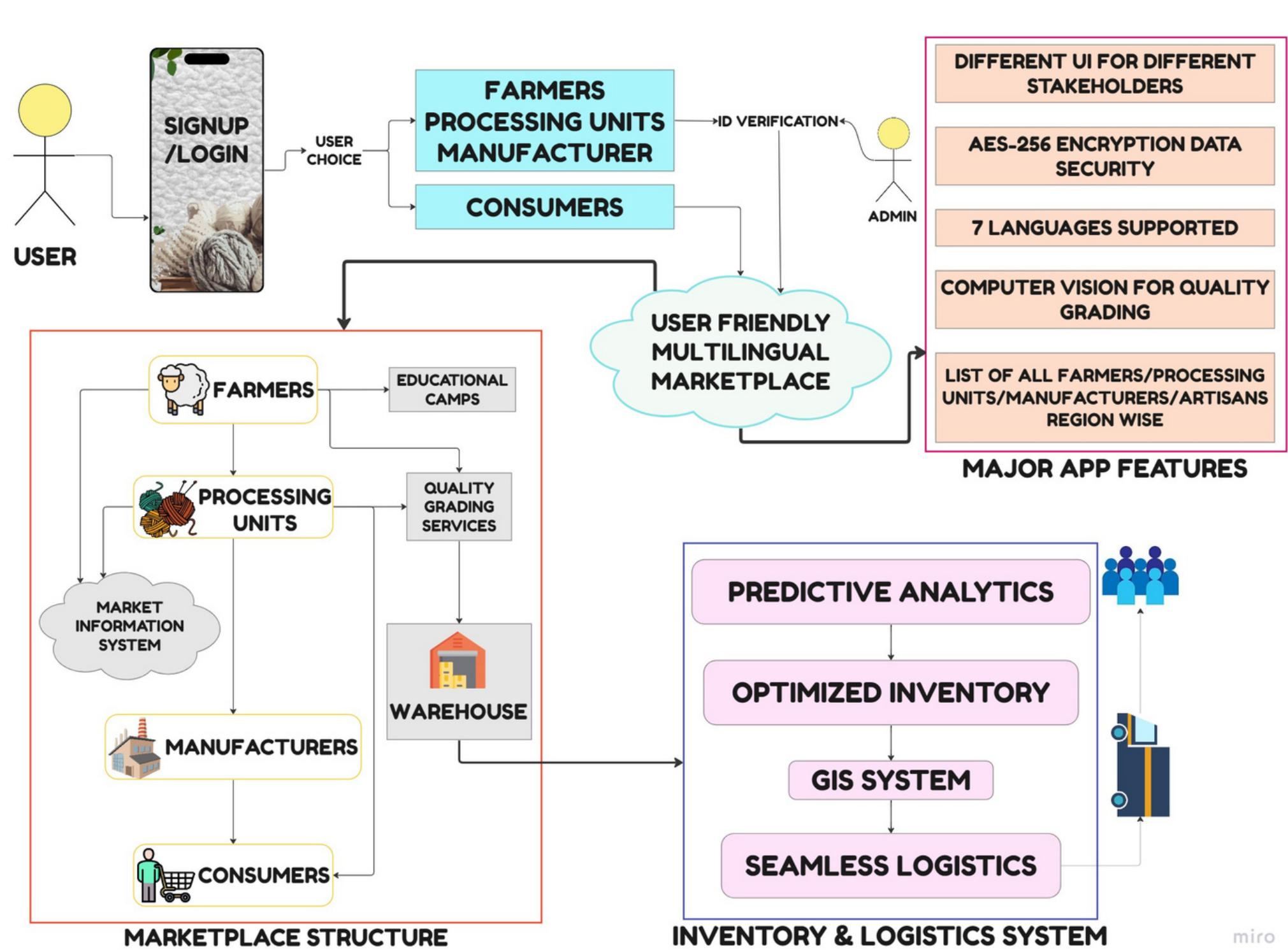


## API INCLUDED



Our app is accompanied with

- ML technology (Open CV) to grade the quality,
- Advance data analytics tools through which we can uncover insights from the collected data,
- GIS tracking system help the customers to track their order
- Well analysed UX/UI



# **SUSTAINABILITY**

- 
- 1) Longevity:** Our app needs to be used regularly in order to reap its maximum benefits. Hence, it will exist and remain operational for the foreseeable future.
  - 2) Continuous development:** As our apps and users grow, we introduce new features and improve pre-existing ones.
  - 3) Scalability:** The product is launched on a small scale and then gradually scaled up to help more and more regions through the feeding of more data and optimizing existing systems to handle more data.
  - 4) Positive user experience:** We take our user's reviews and ratings very seriously and plan future updates while keeping them in mind.
  - 5) Clear roadmap:** We have a clear vision for the future of this app and perhaps that is the most important factor for the sustainability of a product.

# SCALE OF IMPACT



## WOOL INDUSTRY REVOLUTION

The app transforms India's wool industry by enabling informed decisions and real-time market access.



## ECONOMIC GROWTH

It boosts income, livelihoods, and rural economies by streamlining the wool supply chain.



## QUALITY ASSURANCE

The app ensures higher-quality wool products for better market prices.



## DIRECT MARKETPLACE

An online marketplace connects producers and buyers, reducing intermediaries.



## STAKEHOLDERS EMPOWERMENT

Increases transparency and information access for all supply chain stakeholders.



# WHAT WE HAVE DONE TILL NOW ?



## RESEARCH REVIEW

Conducted an extensive review of research papers related to the wool industry & its supply chain gathering insights about how the industry is currently working & the problems in it.



## PROBLEM IDENTIFICATION

Identified and documented the root causes of problems within the Indian wool industry. Categorized and prioritized these issues based on their impact and feasibility of solutions.



## ENGAGEMENT WITH PEOPLE

Engaged with Govt. officials and some wool product shopkeepers of Rajasthan to deeply understand the problem and on ground challenges to implement our solution.



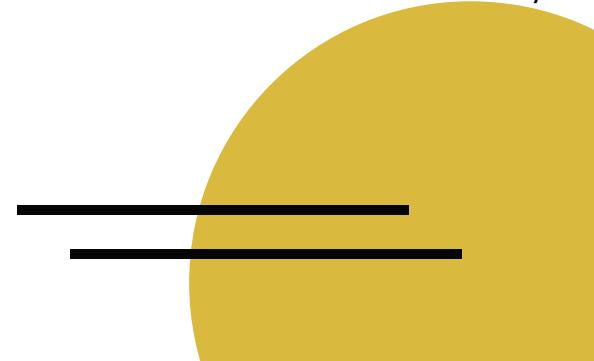
## APP FEATURES DEFINITION

Developed a comprehensive list of features for the app based on research findings and stakeholder input. Features designed to address specific pain points within the wool industry.



## APP DEVELOPMENT

We have completed 70% of our app development and almost 100% of our app interface. If given chance we will develop a robust app to address the needs of the industry.



# OUR APP UI ( MAIN PAGES )



Buy And Sell Your Products  
With WoolBazaar

Massive discounts and offers when you shop.

Log In

Sign Up

WELCOME SCREEN

LANDING PAGE

SIGNUP PAGE

LOGIN PAGE

FORGOT PASSWORD  
PAGE

Welcome!

Sign up for WoolBazaar

Enter your Full Name

Select Your Role

Business Name

Aadhar Card

Phone Number

Password

Confirm password

By clicking on 'sign up', you're agreeing to the Chunky app Terms of Service and Privacy Policy

Sign Up

Welcome back!

Log In to your account

Enter your User ID

Enter your password

Remember Me

[Forgotten password?](#)

Log In

OR

Log in with your Google account

[Don't have an account? Sign Up](#)

[Forgot Your Password?](#)



Enter your username and we will send you a link to reset your password.

Enter Address

e.g. email@domain.com

Reset Password

[Back To Login](#)

## USER ONBOARDING SECTION

**MARKET INFORMATION SYSTEM**  
PRICES | NEWS | DATA

**BUY**    **SELL**

**YOUR TODAY'S DATA**

ORDERS :	15
REVENUE :	9600
IMPRESSIONS :	275
ACTIVE IN CARTS :	38
DELIVERIES :	4
RATINGS/REVIEWS :	2

**My Orders**  
[Dashboard](#)  
[My Ratings & Reviews](#)  
[My Account](#)

**HOME**    **DASHBOARD**    **MY ACCOUNT**    **MY ORDERS**

**HOME PAGE**

Hi, Abhay  
**Welcome Back!**

Revenue  
**Rs. 12,780\***

February 2023

Transaction summary

New Order	3
Processed	13
Complaints/Return	0

My Orders

My Ratings & Reviews

**My Products**

<b>Merino Raw Wool</b>	<b>Carpet Grade Wool</b>
★★★★★ Rs. 115 per kg	★★★★★ Rs. 85 per kg
Available : 120 kg	Available : 250 kg

**DASHBOARD**

Farmers **1,221**    Manufacturers **876**

Processing Units **651**    Consumers **2,374**

Registered with us

**Wool Prices**

	<b>Merino Raw Wool</b>	<b>Rs. 250/kg</b>
	<b>Chogra Raw Wool</b>	<b>Rs. 135/kg</b>
	<b>Merino Yarn</b>	<b>Rs. 850/kg</b>

**More Details**

**News**

- Government Of India announces Wool Bazaar ...**  
On friday, government of India announces wool bazaar app for all the stakeholders of the wool industry. This is definitely a good step for the betterment of all people and will increase revenue.... [read more](#)
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**HOME**    **DASHBOARD**    **MY ACCOUNT**    **MY ORDERS**

**MARKET INFORMATION SYSTEM**

**Post Your Requirements**

Select the Product

Select the Quality

Describe the details

Enter Quantity Required KG

Show only verified sellers

**SUBMIT**

OR

**DISCOVER ALL SELLERS**

**HOME** **DASHBOARD** **MY ACCOUNT** **MY ORDERS**

**BUY PAGE**

**Add Product**

Title

Select the Category

Add Description

Add Tags

Enter Quantity Available KG

Add Product Photo

Add Product Photo

Add Product Photo

**SUBMIT**

OR

**DISCOVER ALL BUYERS**

**HOME** **DASHBOARD** **MY ACCOUNT** **MY ORDERS**

**SELL PAGE**

**Merino Sheep Wool**

★★★★★ Very Good • 43 orders

**Rs. 100 per kg**

Experience the soft, cozy, and natural comfort of our Merino Sheep Raw Wool from Bikaner, India. It's incredibly soft, great at keeping you warm in winter and cool in summer. Plus, it helps keep moisture away from your skin, so you stay dry. Our wool is eco-friendly, coming from.....

[More Details](#)

Seller : Ramu Kaka, Bikaner 801103

[CONTACT SELLER](#)

Similar Products

## PRODUCT DETAILS

**My Account**

Name: Ram Mohan  
User Type : Farmer  
Business Name : WoollQ  
GST Number :  
Mobile Number : 9838486012  
Address : Village - xyz, Sector 2,Bikaner, Rajasthan  
E-Mail ID : zenith@gmail.com

[edit details](#)

**My Orders**

**Dashboard**

**My Ratings & Reviews**

[Help & Support](#)

[LOG OUT](#)

[HOME](#) [DASHBOARD](#) [MY ACCOUNT](#) [MY ORDERS](#)

## MY ACCOUNT

**My Ratings & Reviews**

Total Orders Completed : 197

**4.6**

107 ratings & 43 reviews

Rating	Count
5★	45
4★	32
3★	13
2★	15
1★	2

**Rohit Kumar, Jaipur**  
Merino Wool Yarn : 50pc  
"The Wool Yarn was very good. The product was delivered on time. It is very soft and the colours was very accurate. Very happy with the order."

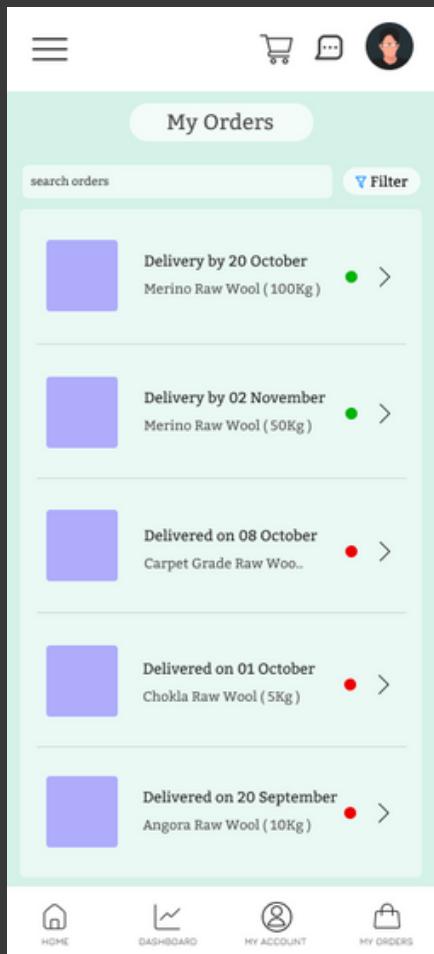
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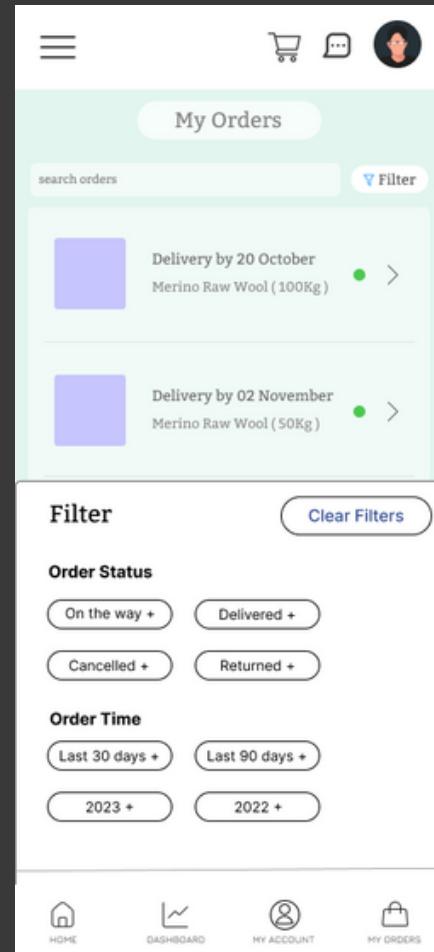
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[HOME](#) [DASHBOARD](#) [MY ACCOUNT](#) [MY ORDERS](#)

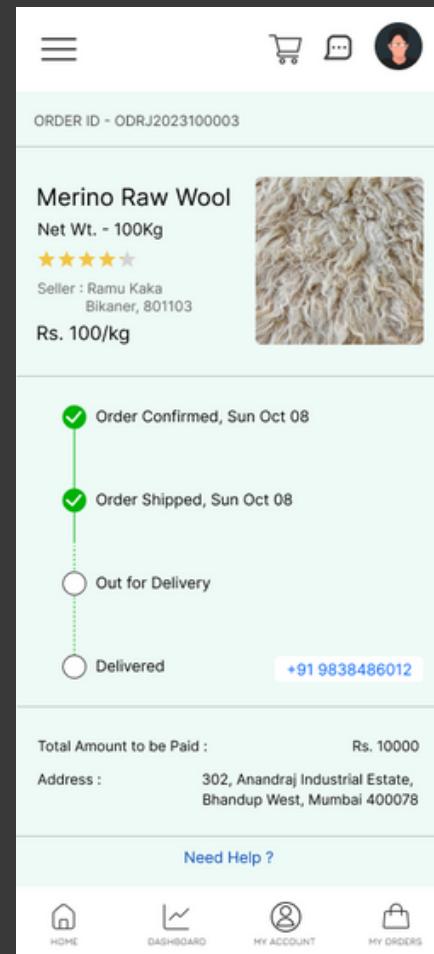
## MY RATINGS & REVIEWS



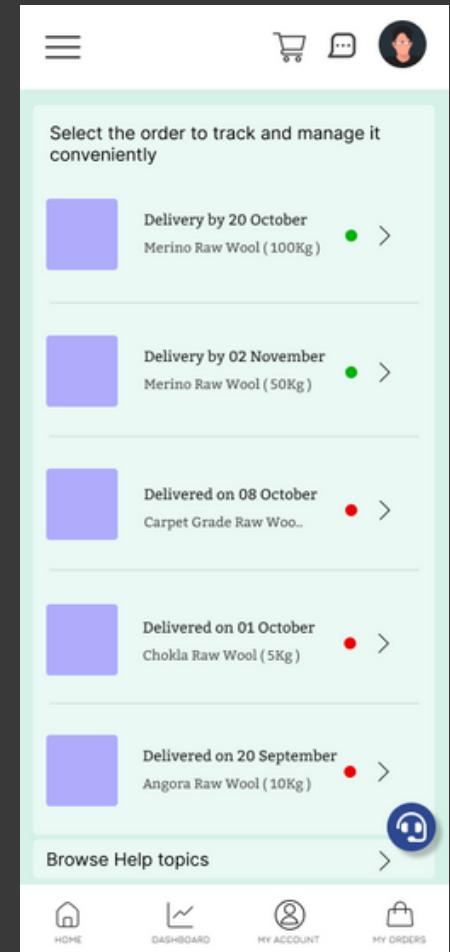
## MY ORDERS



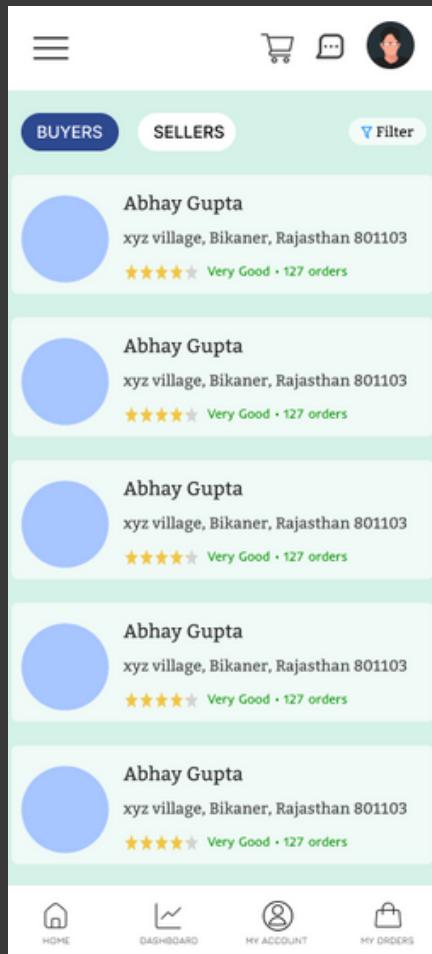
## ORDER FILTER SECTION



## ORDER DETAILS

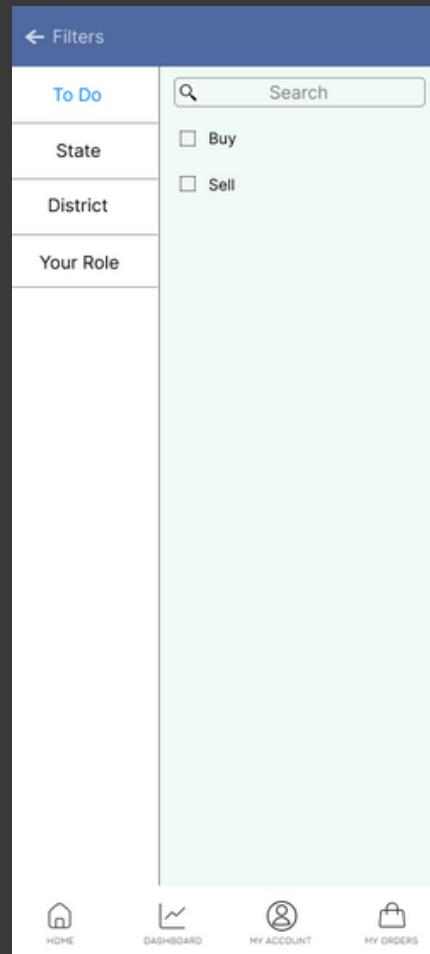


## ORDER HELP & SUPPORT PAGE



This screenshot shows a list of buyers and sellers. At the top, there are tabs for 'BUYERS' and 'SELLERS', with 'SELLERS' currently selected. A 'Filter' button is also present. Below the tabs, five entries for 'Abhay Gupta' are listed, each with a blue profile picture, name, address ('xyz village, Bikaner, Rajasthan 801103'), and a rating of 'Very Good • 127 orders'. At the bottom, there are navigation icons for 'HOME', 'DASHBOARD', 'MY ACCOUNT', and 'MY ORDERS'.

**LIST OF ALL  
BUYERS/SELLERS**



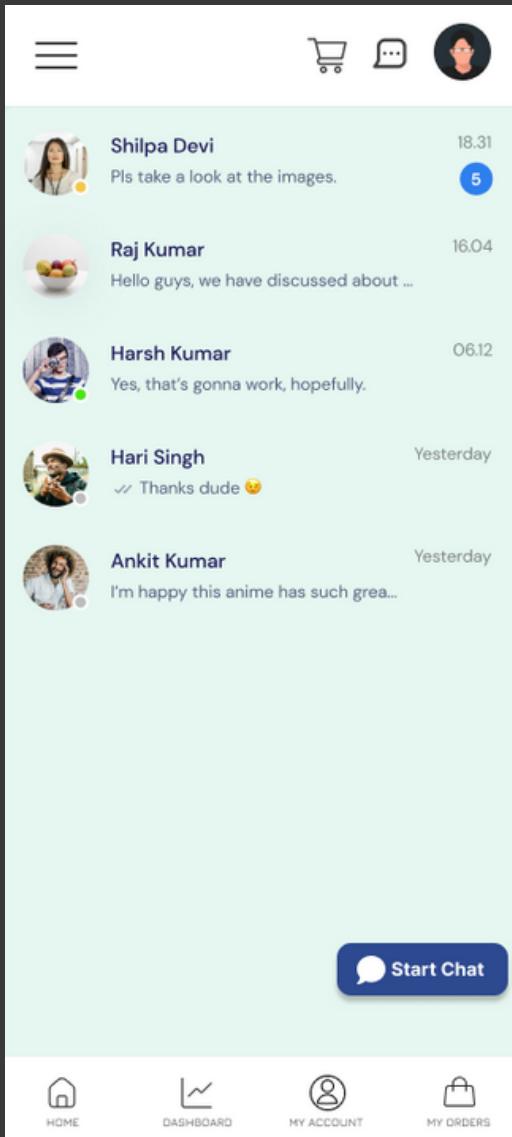
This screenshot shows a 'Filters' interface. At the top, there is a 'To Do' section with a search bar and two checkboxes: 'Buy' and 'Sell'. Below this are sections for 'State' and 'District', both of which currently have no options selected. At the bottom, there are navigation icons for 'HOME', 'DASHBOARD', 'MY ACCOUNT', and 'MY ORDERS'.

**FILTER BASED ON  
REGION**

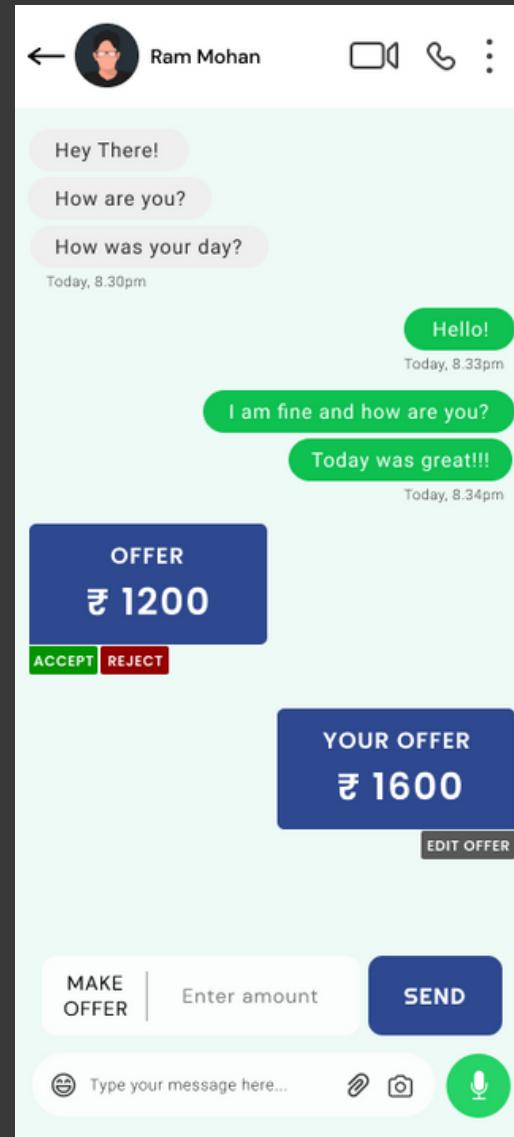


This screenshot shows detailed information for a seller named 'Ram Mohan'. It includes a circular profile picture of a person, basic contact details ('Name: Ram Mohan', 'User Type: Wool Farmer', 'Business Name: Ram Mohan', 'Address: E-420, 421, Karni Indl. Area, Bikaner Ho, Bikaner - 334001'), and performance metrics ('Total Orders Completed: 197', '4.6' rating, '107 ratings & 43 reviews'). Below this, there is a chart showing delivery times by rating: 45 days for 5 stars, 32 days for 4 stars, 13 days for 3 stars, 15 days for 2 stars, and 2 days for 1 star. At the bottom, there are sections for 'Available Products' (with two small thumbnail images) and navigation icons for 'HOME', 'DASHBOARD', 'MY ACCOUNT', and 'MY ORDERS'.

**BUYER/SELLER DETAILS**



MESSAGING INBOX



MESSAGING TAB

**THESE WERE OUR MAIN PAGES OF OUR APP.  
PLEASE CLICK THE BELOW LINK TO KNOW  
ABOUT OUR SOLUTION IN DETAIL.**

**YOUTUBE VIDEO**



# Thank you!

HOPING TO GET A CHANCE TO  
STREAMLINE THE SUPPLY CHAIN OF  
WOOL INDUSTRY