Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation: Ministry of Textiles

PS Code: SIH1309

Problem Statement Title:

Application Development for monitoring of wool from Farm to fabric

Team Name:

Let us Cook

Team Leader Name:

Anurag Verma

Institute Code (AISHE):

Institute Name: Netaji Subhas University of Technology

Theme Name: Transportation & Logistics

Idea/Approach Details

Our objective is to build an **app and web-based solution** that would aim at the less organized wool sector of India. The platform would act as a **one-stop solution** for all the stakeholders and players that are involved throughout the lifecycle of the wool market.

1. There would be 3 types of profiles on the platform – Buyer, Seller and the Service Provider. All would be **verified by UIDAI** Identification system.

2. The main highlight of the product would be to act as an online wool marketplace, like a traditional **E-commerce platform**, where wool producers and farmers can directly sell and trade the products to the buyers & among themselves. Service providers can similarly list their services such as shearing, sorting, and dyeing. **The platform can use secure payment methods like UPI and charge a fee per transaction**.

3. Using cutting-edge **data analysis and machine learning** tools, farmers and the sellers would be able to manage, study and analyse their inventory.

4. Users can seamlessly **track orders** from farm to market using checkpoints.

5. Quality assurance tools will be integrated using **Computer Vision and Deep Learning techniques** to assist the buyer.

6. Real-time market information on wool prices, trends, news, list of wool producers to provide educational resources to help the users improve their production, quality, design, & marketing skills. This data can be obtained from **Government APIs & regional news articles**.
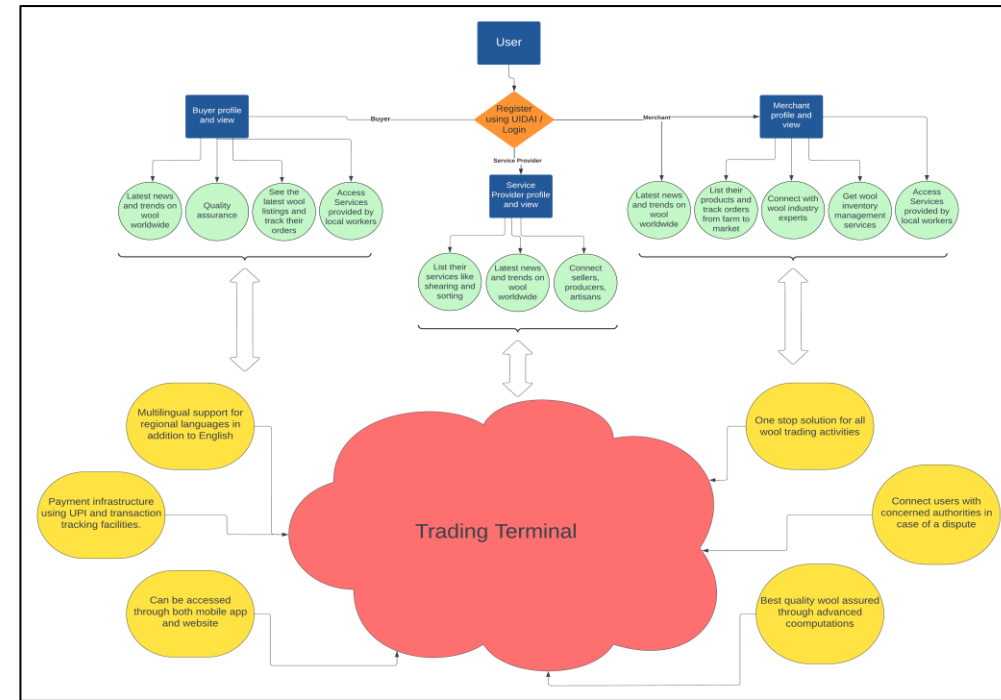
Technology Stack:

Idea/Approach Details

1. Our product will create an **online wool marketplace** wherein the producers, farmers and other wool sellers can get access to a large user base. Similarly, buyers can get access to wide variety of products to choose from. Local workers can also list their services and can find a potential customer easily. Other users can get access to services.

2. Inefficient and unorganized inventory management for the producers can be transformed **into efficient and smart inventory management** using machine learning methods.

3. Users will be able to **track their respective orders** on the app itself instead of going through the hassle of contacting the respective stake holders. This also **increases the security of the Delivery.**

4. Buyers would be able to **verify quality standards** of the product they buy using computer vision and deep learning techniques.

5. Farmers, sellers, workers and artisans would **get access to real time global price trends, government schemes and news** relating to their product on the app.

6. Reduced possibility of any fraud by government verification processes and grievance resolution features.

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1. **Data Sources & Integration :**
Access to reliable sources for real-time wool market information, including price data, trends, and news updates. Collaboration with transportation and logistics partners to enable real-time tracking of wool shipments.

2. **Technology Infrastructure:**
A scalable and secure infrastructure to handle the influx of data and users.

3. **Government Regulations and Compliance:**

Compliance with government regulations related to the wool industry, data privacy, and financial transactions.

4. **Industry Collaboration:**

Cooperation with wool processing and warehousing facilities for seamless integration. Engagement with wool buyers and sellers to promote the trading platform and online marketplace.

5. **User Adoption and Training:**

Proper training and support for wool producers to use the app effectively. Continuous efforts to encourage users to actively participate in the online marketplace and tracking features.

Team Member Details

Team Leader Name : Anurag Verma

Branch : Btech   Stream : CSE   Year : IV

Team Member 1 Name : Aman Garg

Branch : Btech   Stream : CSE   Year : IV

Team Member 2 Name : Gaurav Bansal

Branch : Btech   Stream : CSE   Year : IV

Team Member 3 Name : Kumar Mayank

Branch : Btech   Stream : CSE   Year : IV

Team Member 4 Name : Ujjawal Bansal

Branch : Btech   Stream : CSE   Year : IV

Team Member 5 Name: Vanika Dhawan

Branch : B.Des   Stream : Fashion Technology   Year : III

Team Mentor 1 Name: Type Your Name Here

Category (Academic/Industry):   Expertise (AI/ML/Blockchain etc):   Domain Experience (in years):

Team Mentor 2 Name: Type Your Name Here

Category (Academic/Industry):   Expertise (AI/ML/Blockchain etc):   Domain Experience (in years):