**MODULE DESCRIPTION**

**MODULE 1: CLIENT**

This module allows clients to register and log in securely using their credentials. After logging in, clients can explore the product catalog uploaded by the admin, with detailed information such as descriptions, prices, and features available for each product. They can add products to the cart, update quantities, or remove items as needed, ensuring flexibility in managing their selections. The checkout process ensures clients fill in necessary fields such as payment and delivery details before completing the order. Once the order is successfully placed, a unique order ID is generated for confirmation. The client can log out to secure their account and conclude the session. This module provides a comprehensive and user-friendly flow, covering all essential e-commerce operations.

**MODULE 2: SALON OWNER**

This module enables salon owners to manage their operations efficiently. The process starts with the salon owner registering their personal and shop details on the sign-up page, followed by receiving an admin-approved password to log in. After logging in, the salon owner can upload relevant data such as the amount of hair collected, collection month, type of hair, and services provided. Once the data is uploaded, the owner can view its status—whether it is approved or rejected by the admin. If approved, the salon owner must register their bank details to enable payment processing. They can then track the payment status to see whether the admin has processed the payment. After completing these steps, the salon owner can log out securely. This module streamlines registration, data management, and payment tracking, ensuring a smooth and transparent experience.

**MODULE 3: COLLECTION MANAGEMENT**

This module is designed to streamline the tasks of the collection management employee. The process begins with the employee registering their personal information and employee details on the sign-up page. Once the registration is completed, the employee must wait for admin approval to receive a password. With the admin-approved password, the employee can log in securely. After successfully logging in, the collection management employee gains access to salon data that has been approved by the admin. The employee reviews the approved reports and uploads data to initiate operations. The operations focus on analyzing the amount of melanin and keratin present in the specific batch of hair collected. Upon completing the analysis, the employee generates a detailed report and submits it to the admin for further review. After performing all required operations and submitting the reports, the employee securely logs out of the module. This module ensures a structured workflow for registration, data analysis, and reporting, facilitating smooth and efficient operations for the collection management employee.

**MODULE 4: PROCESS ANALYSIS**

This module is designed for the Process Analysis Employee to handle critical operations. The workflow begins with the employee registering their personal information and employee details on the sign-up page. After successful registration, the employee must await admin approval to receive their login credentials. Using the admin-approved password, the employee can log in securely to the module. Once logged in, the Process Analysis Employee can view the collection management data that has been approved by the admin. After reviewing the data, the employee uploads the melanin and keratin data to perform specific tests. These tests involve conducting temperature-based experiments on the extracted melanin and keratin using ionic liquids. During these tests, the employee analyzes the various results and observations derived from the experiments. A detailed report is then prepared and submitted to the admin for review and further action. After completing all assigned tasks and submitting the necessary reports, the Process Analysis Employee securely logs out of the module. This module provides a structured and streamlined process for data review, experimental testing, and reporting, ensuring efficient and precise operations.

**MODULE 5: ADMIN**

This module enables the admin to manage and oversee operations across all modules. After logging in, the admin processes the log status of users registering in different modules (salon owners, collection management, and process analysis) and approves their access. The admin uploads product details, visible in the client module for purchases. In the salon module, the admin reviews reports from salon owners, accepts or rejects them, allocates payments for approved reports, and processes transactions. In the collection module, the admin examines reports uploaded by collection management employees and decides on approval. Similarly, in the process analysis module, the admin reviews the results of tests conducted on melanin and keratin. Once all tasks are completed, the admin can download a comprehensive report summarizing approved salon data, collection management reports, and process analysis results. This module ensures efficient control of all operations and records.