

PES UNIVERSITY, BANGALORE A close up of a logo

Description automatically generated

Department of Computer Science and Engineering

**Project Title**: Beauty Retail E-Commerce Platform Development

**Team Profile**:

1.PES2UG21CS519 – Shweta Dash

2.PES2UG21CS531 – Smriti Sugur

3.PES2UG21CS541 – Srinandhana Aravindan

**Project Description**:

Our project aims to build a beauty e-commerce website to facilitate and ease the online shopping experience for cosmetics by providing a plethora of functionalities, advanced filters, a secured payment gateway and most importantly, a user-friendly interface.

Our team plans on expanding on available software and improving its features, while also attempting to build new services on top of it to enrich the overall user experience.

The target demographic/potential users for our application are primarily women around the ages of 18-59. We plan on easing the shopping experience by allowing the users to browse through a variety of categories and products based on their preferences and desired price range.

The website also includes an interactive forum that allows users to exchange opinions, reviews, and tips, and to participate in discussions. This community driven ingredient will serve to enhance user loyalty and build a strong customer base.

**The prospective features of our software are listed as below**:

* Easy-to-use navigation, minimalistic website design, along with a speedy website.
* Streamlined product discovery – Helping users find the right products is a necessity for a beauty products platform. This can be achieved by providing personalized recommendations and by suggesting complementary products.
* Replication of the in-person shopping experience, which can be provided to users by including features such as try-on filters, personalized product recommendations, etc.
* Forums to communicate with other buyers and like-minded individuals, to make the overall customer experience better.

**Plan of Work**:

Over the next few weeks, we will define the project scope, objectives, and constraints, conduct market research on the cosmetics industry, and select the technology stack with scalability and security in mind.

Next, the design and prototyping phase will be entered, where mockups of the website's User Interface will be created using tools like Figma. The database design to store user information, transaction records, and product information will be decided upon. The frontend of the website will be developed using the chosen technologies, and responsive design for various screen sizes will be implemented. Advanced filters and search options will be integrated.

The backend logic to handle user accounts, product listings, and the shopping cart will be developed, and user authentication and authorization will be implemented. A forum section for user interaction and discussions will be created. A payment gateway will be integrated to facilitate transactions, and security measures such as SSL certificates, encryption, and user data protection will be implemented.

We'll integrate a payment gateway, prioritize security measures, conduct extensive testing, optimize performance, and prepare for production deployment before launching the website.

**Functionality:**

* Customer Registration and Authentication
* Product Listings and Descriptions
* Shopping Cart and Checkout
* Advanced Filters and Search Options
* User Reviews and Ratings
* Secure Payment Processing
* Data Security and Protection
* Forum for user discussions
* User Account Management
* Statistical Reporting

**Functionality managed by:**

**PES2UG21CS519 - Shweta Dash**

1. Secure Payment Processing – This feature involves protecting the customer’s financial information during transactions through encryption, authentication and secure payment gateways, and adheres to industry standards.
2. Data Security and Protection – Using this feature, the customer’s personal information, such as payment data and purchase history, is safeguarded through encryption, access controls, firewall protection, and compliance with data protection regulations.
3. User Account Management – This feature allows users to create, customize, access, and manage their accounts. Features like password management and reset mechanisms under strong password policies and the ability to track orders allow a high degree of certainty along with the personalizations of the user.

**PES2UG21CS531 - Smriti Sugur**

1. Product Listings and Descriptions – This feature enables a display of all the products on the platform with details about each, including images of the products, their prices, indispensable information about the products, and user reviews. The goal is to let users make an informed decision to avoid future grievances.
2. Shopping Cart and Checkout – Using this feature, the users can view an itemized list of all the products they’ve selected and review them before moving to the final secure checkout. This ensures a seamless transaction and boosts customer satisfaction.
3. Advanced Filters and Search Options – The user can narrow their search down and find specific products based on criteria like price, branding, etc. through this feature.

**PES2UG21CS541 - Srinandhana Aravindan**

1. Customer Registration and Authentication – Through this feature, the customers have a way to create and manage their own accounts. Users can register for an account by entering details about themselves. Account security is ensured through password regulations and authentication methods.
2. User Reviews and Ratings – This feature encourages transparency. Users can rate the products they’ve purchased from the site and share reviews that will be visible to other potential customers. This helps buyers make informed choices and fortifies a sense of community.
3. Forum for User Discussions – This is an interactive feature that lets users communicate with each other and engage in friendly discussions. Users can both share tips and ask questions in different categories. The feature gives users a sense of affinity.
4. Statistical Reporting – This feature enables the platform to gather data related to sales trends, product performance, and customer behavior, and then analyze it. It offers insights into the platform’s operations, and helps in decision making strategies, which ultimately solidifies the business’ overall growth.