

StyleRevive

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ABSTRACT:

The fashion industry is undergoing a transformative phase, with increasing demand for personalized clothing and sustainable fashion practices. However, the current market is fragmented, offering limited accessibility to bespoke tailoring services and eco-friendly options. StyleRevive addresses these challenges by providing an integrated platform that bridges the gap between customers, designers, tailors, and second-hand clothing resellers. The primary goal of StyleRevive is to empower users to connect with skilled designers and tailors globally while promoting sustainability through a dedicated resale marketplace. Users can browse through unique designs, communicate with professionals in real-time, and place orders seamlessly. Designers and tailors benefit from showcasing their portfolios and engaging with a broader audience, enhancing their visibility and market opportunities. Additionally, the platform encourages sustainable practices by enabling users to buy and sell second-hand clothing, reducing waste and promoting eco-conscious consumer behavior. The platform's user-friendly interface, supported by advanced technologies like React Native and Flask, ensures seamless navigation and efficient operations. MySQL serves as the backbone for managing data, while secure payment gateways like UPI and Google Pay facilitate hassle-free transactions. Real-time communication features further enhance user engagement, fostering a collaborative and personalized experience. StyleRevive not only addresses the limitations of

existing systems but also aligns with global efforts toward sustainability and inclusivity in fashion. By integrating innovative features and prioritizing user needs, the platform sets a new standard for the fashion industry, creating a unified, accessible, and eco-friendly solution. With its scalable design, StyleRevive is well-positioned for future enhancements, including AI-powered recommendations and AR-based virtual try-ons, paving the way for a more sustainable and interactive fashion ecosystem.

1. NTRODUCTION

The fashion industry is evolving with a rising demand for personalized clothing and sustainable fashion. Finding the right tailor or designer for custom needs can be challenging. This project aims to create a platform connecting customers with tailors and designers for bespoke clothing and supporting the resale of second-hand clothes.

Existing System

Currently, the market for customized clothing and second-hand fashion is fragmented.

Customers often rely on local tailors or word-of-mouth recommendations, which limits their options. There are separate platforms for selling second-hand clothes, but they do not offer customization services or connections to fashion designers. This disjointed approach makes it difficult for consumers to find comprehensive solutions for their fashion needs in one place.

Proposed System

The StyleRevive mobile app brings together

clothing customization and second-hand garment resale in a single, user-friendly platform. Users can explore designs posted by fashion designers, interact with them through in-app chat for personalized suggestions, and forward selected designs to tailors for creation. The app also features a marketplace for

buying and selling second-hand clothes, promoting sustainability. Reviews and ratings ensure informed decisions and a seamless experience.

2. LITERATURE SURVEY

The fashion industry is evolving rapidly, with increasing consumer demand for personalized clothing and sustainable practices. However, challenges such as limited accessibility to skilled designers, fragmented platforms, and environmental concerns highlight the need for innovative solutions. This section explores existing literature to provide a theoretical foundation for the StyleRevive project.

Wen, H.J., Chen, H., and Hwang, H. (2001) emphasized the importance of user-friendly e-commerce platforms and strategic website design. Their study outlines principles for creating interfaces that prioritize accessibility, security, and seamless navigation. These insights directly inform the development of the StyleRevive platform, ensuring an intuitive user experience and robust transaction mechanisms.

Satyanarayana, V., Behera, R., and Kumar, G. (2018) examined online price comparison and resale platforms, showcasing how digital marketplaces empower users to make informed purchasing decisions. This research underpins the second-hand clothing marketplace feature of StyleRevive, which aims to promote sustainable fashion by facilitating resale and reducing waste.

Mukherjee, Sudeshna (2015) highlighted the

environmental and social impacts of the fashion industry, advocating for a transition to eco-friendly and ethical practices. This study reinforces StyleRevive's objective to integrate sustainability into its business model, encouraging consumers to adopt environmentally conscious choices through resale and upcycling.

Kozlowski, Anika, Michal Bardecki, and Cory Searcy (2012) provided a comprehensive life-cycle and stakeholder framework to evaluate the environmental footprint of fashion products. Their findings suggest that platforms like StyleRevive can play a pivotal role in minimizing waste by connecting users with second-hand options and sustainable design practices.

Guercini, Simone, and Andrea Runfola (2015) explored the role of e-commerce in the internationalization of multibrand retailers in the fashion industry. Their study highlights how digital platforms facilitate global connectivity and expand market reach. Inspired by this, StyleRevive aims to overcome geographical barriers, enabling users worldwide to access bespoke fashion services and eco-friendly solutions.

These studies collectively underscore the significance of a unified platform like StyleRevive, which integrates customization services with sustainable fashion practices. By leveraging proven strategies from existing research, StyleRevive addresses critical gaps in the market and fosters a more inclusive and environmentally conscious approach to modern fashion.

3.METHODOLOGY

The StyleRevive project employs a comprehensive and iterative methodology to design, develop, and deploy an integrated platform for connecting customers with designers and tailors while promoting sustainable fashion through a second-

hand clothing marketplace. The methodology is structured into multiple stages to ensure systematic progress and optimal results.

Requirement Analysis

The first phase of the project focuses on identifying and understanding the requirements of all stakeholders, including customers, designers, tailors, and second-hand clothing resellers. This stage includes:

- **User Research:** Conducting detailed surveys and interviews with potential users to understand their specific needs, preferences, and pain points in accessing tailored fashion services and sustainable clothing options.
- **Market Analysis:** Studying the current landscape of customization and resale platforms to identify gaps and areas of improvement.
- **Feature Prioritization:** Establishing a list of key features required for the platform, such as intuitive navigation, secure payment systems, and interactive tools for real-time communication.
- **Stakeholder Collaboration:** Engaging with designers, tailors, and potential resellers to gather feedback on the proposed system design and functionality.

System Design

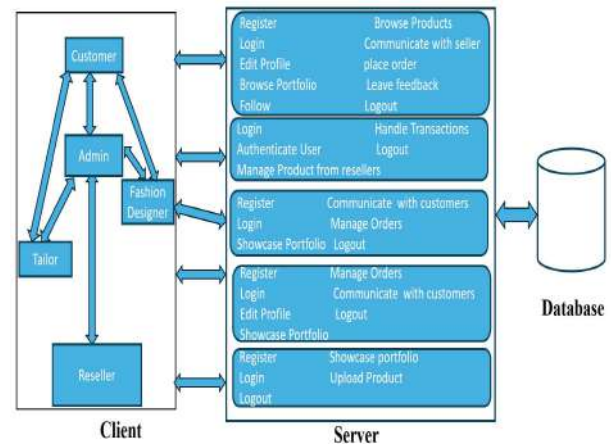
The design phase translates the requirements into detailed technical blueprints and user interaction flows. This ensures a seamless transition from concept to implementation. Key activities include:

- **Architectural Design:** Developing a scalable and modular architecture that separates frontend and backend operations, ensuring smooth communication and future scalability.
- **Database Design:** Structuring a relational database using MySQL to store data efficiently, including user profiles, design portfolios, orders, reviews, and

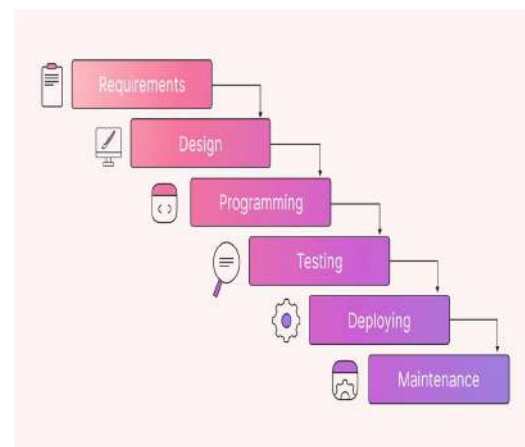
transaction histories.

- **Interface Prototyping:** Creating user-friendly wireframes and mockups to illustrate the platform's navigation and interactions. Special attention is given to mobile responsiveness and accessibility.
- **Security Planning:** Designing secure systems for data handling, including user authentication, encryption of sensitive information, and secure payment gateways.

Software Architecture



Software Process Model – Waterfall Model



Technology Stack Selection

Selecting the right technologies is crucial for building a robust and efficient platform. The choices are guided by the need for scalability, reliability, and performance:

- **Frontend Technologies:** Using React Native to

develop a responsive and seamless user interface that works across Android and iOS devices.

- **Backend Framework:** Implementing Flask for server-side logic, API development, and secure data management.
- **Database Management:** Employing MySQL to manage structured data, ensuring reliable storage and quick retrieval.
- **Payment Integration:** Integrating widely used and secure payment systems, including UPI, Google Pay, and PayPal, to facilitate smooth transactions.

Module Development

The development phase involves creating and integrating various modules to meet the needs of different user groups. Each module is meticulously designed with specific features:

- **User Module:**
 - Registration and profile management to ensure a personalized experience.
 - Browsing functionality for exploring designs, tailors, and second-hand clothing listings.
 - Order placement for custom designs and resale items.
 - Reviewing and rating services to foster a trusted community.
- **Fashion Designer Module:**
 - Profile creation and portfolio uploads to showcase expertise.
 - Design posting for customers to view and select.
 - Real-time communication tools for engaging with customers and providing tailored suggestions.
 - Feedback integration to improve service quality.
- **Tailor Module:**
 - Portfolio management to highlight tailoring capabilities.
 - Order handling based on customer-selected designs.
 - Communication tools for clarifying

requirements and updates.

- **Reseller Module:**

- Listing functionality for second-hand clothing items.
- Inventory management to track available products.
- Customer interaction tools for handling inquiries and resolving issues.

- **Admin Module:**

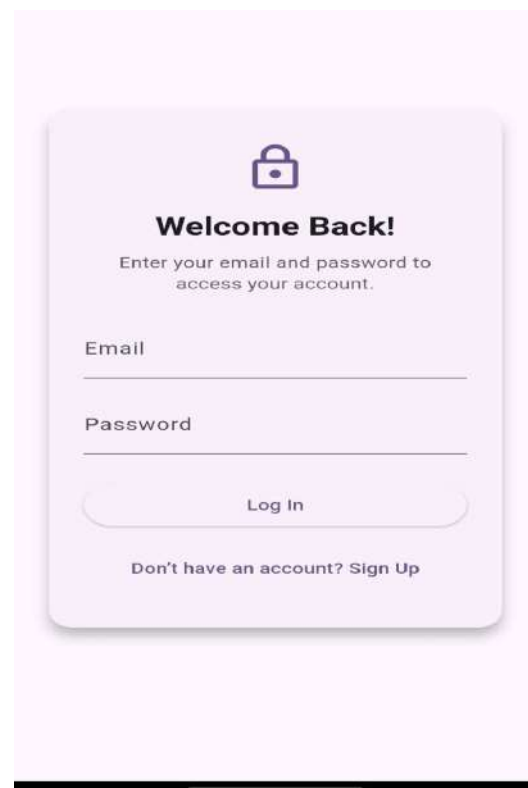
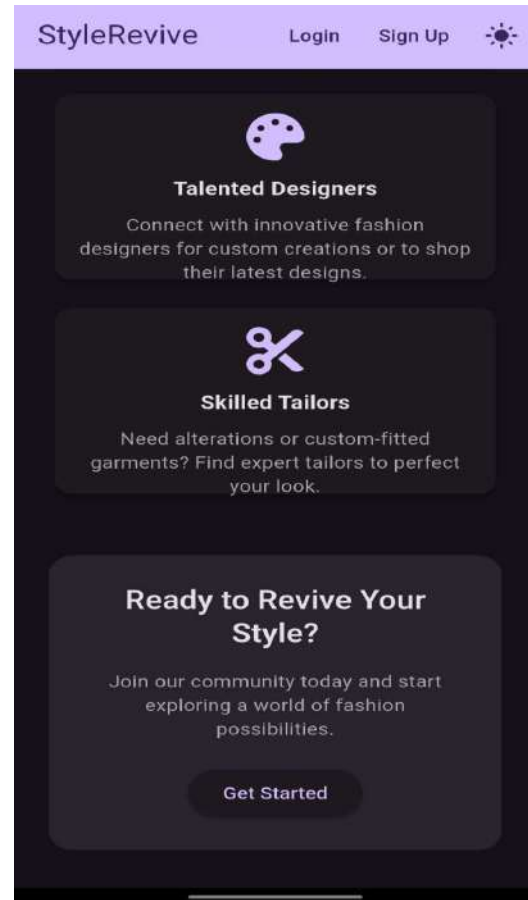
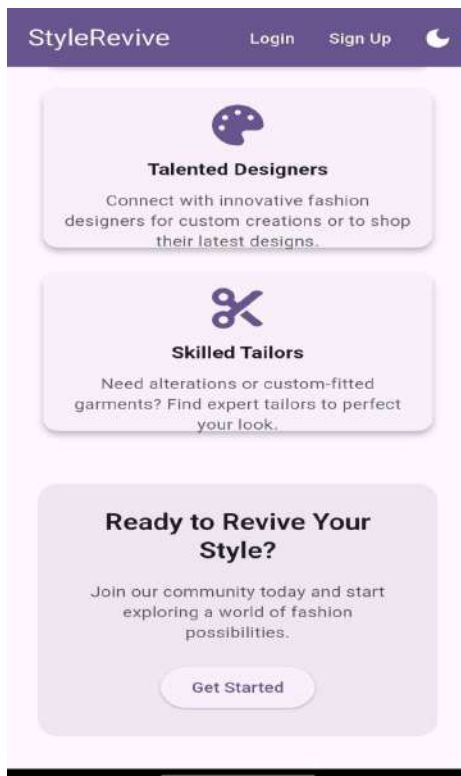
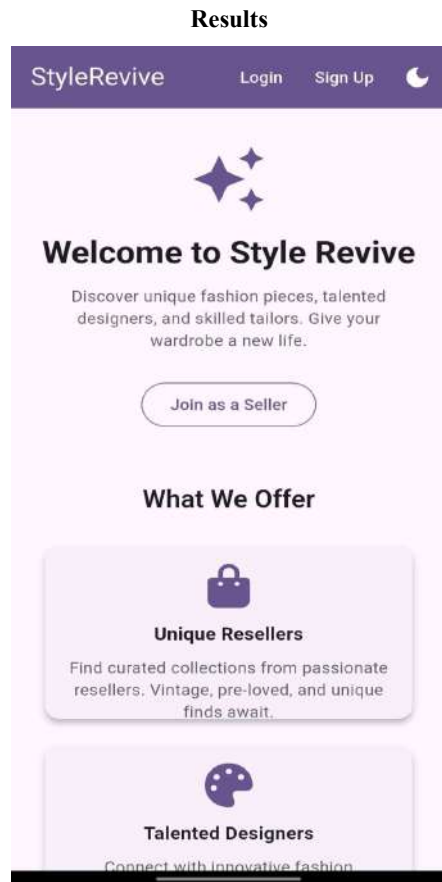
- Oversight of user registrations and platform activities.
- Transaction monitoring to ensure compliance and security.
- Customer support systems to address disputes and feedback.

Testing

Integration and Testing

This phase ensures that the various modules work together harmoniously as a unified platform. A rigorous testing framework is employed to identify and resolve issues:

- **Integration Testing:** Combining individual modules and validating interactions between them to ensure smooth transitions and consistent functionality.
- **Functional Testing:** Verifying that all features operate as intended and meet the project's requirements.
- **Performance Testing:** Assessing the platform's responsiveness and stability under various load conditions, ensuring reliability during high-traffic scenarios.
- **Security Testing:** Testing for vulnerabilities in data handling, user authentication, and payment processing to safeguard user information.
- **Usability Testing:** Conducting tests with a sample group of users to refine the interface and enhance the overall experience based on feedback.



4. CONCLUSION

The StyleRevive project provides a comprehensive solution for the evolving demands of the modern fashion industry, bridging the gap between bespoke clothing services and sustainable fashion practices. By creating a unified platform, the project empowers users to connect seamlessly with designers and tailors, explore and purchase unique creations, and contribute to sustainability by engaging in the resale of second-hand clothing.

This innovative approach addresses the limitations of existing systems, such as the lack of integration between customization services and eco-conscious options. The inclusion of advanced features like real-time communication, secure payment systems, and a user- friendly interface ensures a seamless experience for all stakeholders. Moreover, by emphasizing sustainability, StyleRevive not only meets the immediate needs of its users but also promotes long-term environmental responsibility.

Through its scalable design and future-ready framework, StyleRevive is poised to expand its impact globally, fostering inclusivity and innovation in the fashion industry. As a platform, it not only enhances accessibility to custom fashion but also encourages a more mindful approach to consumption, paving the way for a sustainable and collaborative fashion ecosystem.

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